Southern Health and Social Care Trust

Quality Care - for you, with you

DAISY HILL HOSPITAL
Pathfinder Group

Personal and Public Involvement (PPI) Involving you, improving care

APPENDICES

Daisy Hill Hospital

Pathfinder Project

Development of an Unscheduled Care Model through a Co-Production Approach

20th December 2017

Appendix 1
Project Initiation Document

HEALTH AND SOCIAL CARE

DAISY HILL HOSPITAL EMERGENCY DEPARTMENT PATHFINDER PROJECT WITH IDENTIFICATION OF REGIONAL LEARNING

PROJECT INITIATION DOCUMENT

June 2017

PROJECT NAME	Daisy Hill Hospital Emergency Department Pathfinder Project With Identification of Regional Learning
DOCUMENT ISSUE DATE	16 May 2017
STATUS (Draft, Final)	Draft v6
PROJECT SRO	Dr Michael McBride
DOCUMENT OWNER	Alastair Campbell

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Version	Key Changes	Date	Author
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Document approvals

Name	Signature	Title	Date	Version
Dr Michael McBride		**CMO**	**16/06/17**	**V6**

Document distribution

Name	Date	Version

Daisy Hill Hospital Emergency Department Pathfinder Project with Identification of Regional Learning

Project Initiation Document

This document covers the following areas:

Purpose

1. The purpose of the Project Initiation Document (PID) is to define the project, to form the basis for its management and the assessment of overall success. The PID has two primary uses:

    - To ensure that the project has a sound basis before asking the Southern Health and Social Care Trust (SHSCT) and the Department of Health (DoH) to commit to make any major commitment to the project; and,
    - To act as a base document, against which the SHSCT and DoH can assess progress, risks, issues, change and ongoing viability questions.

Introduction

2. On 27 April 2017 Stephen McNally, Acting Chief Executive of the SHSCT, wrote to Richard Pengelly, Permanent Secretary (DOH), asking the Permanent Secretary to sponsor a summit that would bring together the collective expertise of the wider Health and Social Care (HSC) family and other stakeholders to fully pursue actions to stabilise and sustain the Emergency Department (ED) service provision at Daisy Hill Hospital. The Permanent Secretary replied to Mr McNally on 27 April welcoming the approach that he had outlined, and agreeing to convene a summit of colleagues from organisations across the HSC. The summit would involve departmental colleagues, the Health and Social Care Board (HSCB), Public Health Agency (PHA), Belfast Trust, Northern Ireland Ambulance Service, Northern Ireland Medical and Dental Training Agency and the Regulation and Quality Improvement Authority. The summit would provide an opportunity for all stakeholders to collectively support the SHSCT in fully exploring all possible options to support a safe and sustainable ED service at Daisy Hill Hospital. Furthermore, the Department welcomed Mr McNally's comments, in his letter, that the Southern Trust is fully committed to Daisy Hill Hospital and wants to find a mitigation that allows the ED service to remain in place. The Permanent Secretary confirmed the Department's commitment to meeting both the immediate and long term population health needs for the people of Newry and Mourne.

3. The summit was held on 2 May 2017 chaired by the Chief Medical Officer (CMO). It was agreed that DOH would provide guidance to SHSCT on establishing a clinically-led, managerially supported pathfinder project to develop an operational model for a long term ED service model for the Newry and Mourne area with identification of regional learning. The pathfinder model is to include public engagement in line with PPI/co-production informed by local and regional PPI fora.

Background

4. The SHSCT has concerns about the sustainability of Emergency Department services at both Craigavon Area Hospital (CAH) & Daisy Hill Hospital (DHH). This concern reflects ongoing difficulties in the recruitment and retention of suitably qualified and competent staff. Despite best efforts the Trust has not been successful in securing a sustainable solution to this difficulty. The Trust believes therefore that in the absence of appropriate cover in DHH between the hours of 8pm and 8am the service has the potential to be unsafe.

5. DHH Emergency Department has a long history of delivering high quality emergency care to Newry and the surrounding areas and the department is held in high regard by the local population. The number of patients attending the Emergency Department at DHH has continued to increase over recent years, now exceeding over 50,000 per year. The complexity of illness has also increased as an increasing proportion of patients reach an older age.

6. For over two years, the delivery of a 24 hour ED service in DHH has become increasingly challenging. Emergency Department services are delivered by senior doctors and the number of trained ED doctors at a middle and senior grade within the UK, Ireland and beyond has been insufficient to keep up with demand.

7. A number of significant measures have been introduced over the last two years to strengthen the department. These included recruitment of a large number of locums at both middle (Tier 3 & 4) and consultant (Tier 5) grade, additional senior nurses (Band 6) and the expansion of the Emergency Nurse Practitioner service. Support from in-house medical and surgical teams was also enhanced. These measures

were put in place to support the service and to allow the Trust to undertake a full and comprehensive recruitment programme, but this has not been successful.

8. The RQIA carried out an unannounced inspection of DHH from 5 to 7 December 2016 which included an inspection of the ED. The RQIA's report of the inspection was published in March 2017. While the report identified areas for improvement its overall findings indicated that the ED was well-led and provided a safe service.

9. Despite the positive RQIA Report, there remained three reasons for concern cited by the Trust, which are:

i) Recruitment and retention of medical staff.

10. The Royal College of Emergency Medicine suggests recommended staffing levels for a safe Emergency Department in a key paper from 2015. For a department with the activity of DHH ED at least 10 consultants are required with an appropriate middle grade support. DHH ED has only 1.8 WTE permanent ED consultants in post and only 2 middle grade doctors. The multiple attempts at recruitment are outlined in Table 1 at Annex 1 and Table 2 at Annex 2, almost all of which have been unsuccessful. The Trust has spent considerable time and effort marketing Newry and Daisy Hill as a location and good working environment as illustrated by the Trust's recruitment brochure. The Trust has used extensive advertising techniques both digital on line and in print but to no avail.

11. In acknowledgement of the challenges, uniquely in Northern Ireland, the Trust secured permission from DOH to offer an enhanced recruitment and retention package for the DHH post but also without success.

12. The Southern Trust working with a coordinated regional project implemented an international recruitment campaign both in Eastern Europe and Asia. The Trust has made conditional offers to 3 specialty doctors (Emergency Medicine) from this process although none have commenced yet. Unfortunately none of the offers are at consultant level.

13. Currently the ED department permanent staffing is 1.8 WTE Consultants (tier 5), 2 Specialty doctors and 5 Junior doctors in training (3 Foundation Year 2 doctors and 2

GP Trainees) (tier 2). This means that many evenings and nights have to be covered by locum middle grade and consultant doctors. Locum doctors do not necessarily have the same experience or qualifications required for substantive positions. Because of their temporary nature they may be unsuitable to fulfill the necessary supervisory requirements and can leave at short notice creating instability in the system.

14. The ED consultants in Craigavon have provided support to the Daisy Hill rota, however they are working on a 1:8 rota, instead of the recommended 1:10, and can only offer limited further support out of hours without destabilising the Craigavon ED rota.

ii) Supervision of training

15. The ED in DHH depends on a significant number of training grade doctors, many at a relatively early stage in their training. FY2 or General Practice trainees must have their training supervised appropriately to meet GMC requirements as overseen and assured by the Northern Ireland Medical and Dental Training Agency (NIMDTA). This supervision must be delivered by permanent grade staff.

16. The DHH Emergency Department was inspected by NIMDTA in Spring 2016 and was given a 'red' rating for sustainability (see scoring system at Annex 3). A further update was provided to NIMDTA in October 2016. In November 2016 the actions taken by the Trust to ensure appropriate supervision for trainees was noted. This resulted in a re-RAG assessment as Amber, to be monitored via the Local Education Provider (Trust) Quality Report. A further report has been requested by NIMDTA which the Trust will submit in summer 2017.

17. Extract from GMC/NIMDTA report 2015 with Sep 2016 update (further update now pending): "*Patient Care - The Department is heavily dependent on locums. A lack of sustainable, adequate senior supervision could call into question the sustainability of the Department for F2 and GPST training."* The department has been given a 'Red' rating for patient care which as outlined above, means "*Unsatisfactory-unsafe training environment-Immediate action"*

iii) Intensity of workload

18. The number of patient attendances has been steadily increasing over the last few years. Last year (2016) attendances increased to greater than 50,000; the largest percentage increase of any ED department in Northern Ireland. The workload in the 8pm-8am period has increased by at least 8% over the year with an overall increase of more than 10%. This increases significantly the risk for an inexperienced doctor working with relatively little support in the out-of-hours period. The comparison figures from DOH figures for the last quarter of 2016 are given in Annex 4 as compared to the same period in 2015 as an example.

In Summary

19. There are three main reasons for concern:
    a) Recruitment and retention
    b) Supervision of doctors in training
    c) Increased activity

20. Action is required to remove the Trust's increasing dependence on the availability of locums, enhance the supervision of junior doctors and most importantly provide a consistent, safe and sustainable model of care for Southern Trust patients.

Objectives of the Project/Terms of Reference

21. The project objectives are:

Objective 1

To develop an exemplar Model to meet the acute unscheduled care needs for the Newry and Mourne population, fully aligned with the principles and recommendations within *Systems not Structures* and *Delivering Together*. The Model should take account of the evidence base for modern timely care, ehealth/IT solutions, the science of efficient flow, the professional advice of clinicians in Daisy Hill and across the Southern Trust, General Practitioners and the people in the Daisy Hill catchment area, including other stakeholders, in keeping with the principles within *Delivering Together* and its commitment to coproduction. This will require:

- Completion of a population health needs assessment for unscheduled care, taking into account access and travel times as appropriate.
- Assessment of alternative care pathways across the continuum of community, primary and secondary care that might effectively meet some of the emergency care health needs.
- Development of comprehensive community engagement and involvement proposals aligned with extant statutory PPI requirements, PPI framework and the commitment in *Delivering Together* to co-production.
- Development of outline proposals for a service model for emergency care, taking account of the principles set out in *Delivering Together*.

If broad agreement cannot be reached within the timescales outlined, the DHHPG will escalate to the Departmental Regional Emergency Care Regional Collaborative and Department of Health.

Objective 2

Co-produce plans with the relevant stakeholders to strengthen local community based care, OOH primary care, ED, ambulatory and inpatient care.

Objective 3

Develop a workforce proposal for the Model including: innovative nursing, AHP, diagnostic, social and medical workforce recruitment, training and development plans to be developed in conjunction with HSC partner organisations (NIPEC, NIMDTA and other HSC Trusts). Proposals to improve recruitment and retention of medical staff should be developed; for example, job plans that include sessions or roles in other services or sites which maintain their skills in specialist care. This will include working with HSC Trusts to ensure that the development of the long-term Model includes devising short to medium-term interim arrangements to secure a sustainable workforce during transformation and transition.

Objective 4

To develop a high level Implementation and Investment Plan for the recommended Model, giving consideration to opportunities for recycling of existing and additional resources for consideration by the Emergency Care Regional Collaborative (ECRC).

Timescales

22. The report and recommendations on Objective 1 to be completed by the end of week 8.

23. An interim report and recommendations on all other Objectives to be completed by the end of week 16, with a final report by the end of week 20.

Authority for the Project

24. The authority for the project is provided by the Permanent Secretary, Department of Health.

25. Dr Michael McBride, Chief Medical Officer for Northern Ireland, is the Senior Responsible Officer for the Project.

Project Definition

Key Deliverables

26. The following **key products** will be delivered throughout the life of the project:

i. Project Initiation Document;
ii. Overall project plan;
iii. Workstream Plans;
iv. Risk Register;
v. Interim reports;
vi. Final report; and,
vii. Post Project Evaluation.

Project Scope

27. The **scope** will cover the work necessary to explore the medium and long-term acute unscheduled care needs of the Newry and Mourne population, including the role of Acute and Emergency Department Services in Daisy Hill Hospital (DHH), in light of recognised clinical need, population size and projected growth. In addition the project will provide general principles and approach to assessing the population needs of other relevant rural peripheral areas in Northern Ireland (NI). In-hours GP services and specialist mental health services are outside the scope of this project.

Constraints

28. The constraints on this project are:

    i. Medical workforce resources within the SHSCT and related HSC and stakeholder organisations to take forward this project and implement the resulting long-term Acute and Emergency Services Plan ("the Plan") for DHH;
    ii. Securing buy-in from stakeholders, particularly the wider Newry & Mourne community. The constraint concerns the ability to: demonstrate meaningful engagement; and, how best to ensure a representative group for all through PPI and coproduction), within the time available;
    iii. Timescales for completion of the 20 week programme of work set out in the terms of reference;
    iv. Timescales to make significant progress in implementation of the Plan within 15 to 18 months (by December 2018); and,
    v. Resources, both capital and recurrent.

Assumptions

29. The main assumption at this stage is that resources will be made available, in each of the stakeholder organisations, to take forward the work required to develop and complete implementation of the Plan.

30. Extant accountability arrangements remain and the Department will continue to look primarily to the SHSCT and the HSCB/PHA other Trusts and relevant HSC

organisations to ensure that a safe ED service is provided at DHH until a more permanent solution is put in place.

External Dependencies

31. The project is externally dependant on the following:

    i. The co-operation and understanding of Senior Management and Staff of the relevant HSC and stakeholder organisations; and,
    ii. Timely decision making.

Proposed Approach

32. To ensure that the defined outcomes are achieved the project will be managed and controlled in broad compliance with PRINCE methodologies with the priority being progress on agreed and recommended outcomes rather than process management.

33. The implementation of the Project to be informed and underpinned by improvement methodology to ensure wider regional system learning, scale and spread.

Phase One: Establishment of the Project

34. This will involve the establishment of the: Emergency Care Regional Collaborative chaired by the CMO as SRO; the SHSCT Task and Finish Group, known as the DHH Pathfinder Group; drafting the Project Initiation Document (PID); and, obtaining the SHSCT and DoH approval to proceed.

35. This phase will also involve establishment and population of any workstreams as necessary and development of high level timescales.

Phase Two: Plan and Design

36. This phase will include:

- Scoping of any DHH Pathfinder Group workstream plans which will be clinically led and managerially supported in keeping with principles in “Delivering Together”;

- Consideration by each workstream of relevant policies and guidance, and relevant current proposals for future policy development and initiatives related to acute and emergency care;
- Stakeholder engagement; and,
- Development of a high level implementation and investment plan.

Phase Three: Plan Implementation

37. This phase will:

- Involve the delivery of the agreed Implementation and Investment Plan (week 19 to week 80); and,
- Be dependent upon the DHHPG recommendations in respect of the aspects for regional learning and/or regional implications arising from the Implementation and Investment Plan, both the regional learning aspects and regional implementation implications will be brought to the attention of the HSC Transformation Implementation Group to consider next steps in relation to implementation at regional level.

Project Structure

38. The Project Structure will encompass: an Emergency Care Regional Collaborative (ECRC) chaired by CMO as SRO; the SHSCT Task and Finish Group, known as the DHH Pathfinder Group (DHHPG) which will be accountable to the SHSCT's Interim Chief Executive as SRO.

39. The ECRC is supported by a Secretariat. Workstreams will be established to deliver the Project's objectives as required.

40. Each workstream will require leadership, resources and, where necessary, a working group structure in accordance with the nature of the work they are leading.

Emergency Care Regional Collaborative (ECRC)

41. The Department's Transformation Implementation Group (TIG) has overall oversight of the Project. The ECRC is the main decision making body for overseeing the Project. It will agree the workstreams, timescales, facilitate progress on solutions for DH and endorse recommendations and share learning with the HSC. The Chief Medical Officer is the Senior Responsible Owner (SRO) and will report progress to the Transformation Implementation Group.

Membership of the ECRC:

42. Membership will be kept under review and will evolve and will draw on relevant experience across the HSC as required as the work proceeds.

- Dr Michael McBride, CMO, chair
- Charlotte McArdle, CNO
- Jackie Johnston, Deputy Secretary, DOH
- Dr Paddy Woods, DCMO
- Chris Matthews, Director of Social Services Policy Group, DoH
- Dr Anne Kilgallen, Chief Executive, WHSCT
- Dr Carolyn Harper, PHA
- HSCB Commissioner Representative
- Dr Sean McGovern, RCEM
- Dr Seamus O'Reilly, Medical Director, Northern Trust
- Dr Charlie Martyn, Medical Director, South Eastern Trust
- Dr John Maxwell, Clinical Director, Emergency Medicine, Belfast Trust
- Dr Grainne Doran, RCGP
- Margaret Moorhead, Assistant Director Allied Health Professions, SEHSCT
- Eileen McEneaney, Interim Director of Nursing, NHSCT

43. ECRC members have been selected to reflect a range of knowledge, skills and experience of the HSC which will be necessary to support successful delivery of the Project. Members will be responsible for supporting the SRO to achieve the aims of the Project. Membership of the ECRC will be reviewed on an ongoing basis.

44. It is expected that other stakeholders will be invited to attend ECRC workstream meetings as appropriate. In addition, expertise may be sought from critical friends or advisers.

ECRC Project Secretariat

45. The ECRC Project Director is Alastair Campbell assisted by Aaron Thompson. The Secretariat is responsible for supporting the ECRC, its Chair and SRO by managing the finance, liaising with external bodies, overarching management of administration, and by providing regular performance reports/stocktakes on workstreams against targets and work plans. The Secretariat will manage the project on a daily basis, monitor the outputs of the various workstreams, monitor progress against timetable and ensure deadlines are being met. During the course of the project, the Project Director may identify the requirement for further resourcing to support the project. Where this is required, and is not currently available, this shall be communicated to the Acting Deputy Secretary Healthcare Policy, ECRC and SRO in advance for approval and resource allocation.

DHH Pathfinder Group (DHHPG)

46. The DHHPG is the group responsible for the direction and planning of the project and for overseeing the day to day/operational running of the Project. The corporate values and the priorities of the SHSCT will guide the work. Led by the Project Director, it will agree the workstreams their membership and remits, set timescales to meet PID requirements and develop recommendations, reporting to the SHSCT's Interim Chief Executive who will be the SRO for the Project. He will be accountable to the SHSCT's Board, reporting alongside the Chief Medical Officer to the Minister for the delivery of the Project.

<u>Membership of the DHHPG</u>

- Dr Anne Marie Telford, Project Director and Chair
- Dr Richard Wright, SHSCT Medical Director
- Mrs Angela McVeigh, SHSCT Director of Primary & Community Care
- Mrs Aldrina Magwood, SHSCT Director of Planning
- Head of Communications, SHSCT
- Dr Brid Farrell, AD for Service Development, PHA

- Dr Diane Corrigan, Consultant, PHA
- Mrs Mary Hinds, Director of Nursing, PHA
- NIAS nominee
- SLCG Commissioning lead for acute services
- HSCB Commissioner Nominee
- Staff side Representative
- Community Nominees
- Chair of LMC or nominee

47. DHHPG members have been selected to reflect a range of knowledge, skills and experience of the HSC which will be necessary to support successful delivery of the Project. Members will be responsible for supporting the Chair to achieve the aims of the Project. It is expected that other stakeholders will be invited to attend DHHPG workstream meetings as appropriate. Membership of the DHHPG and its workstreams will be reviewed on an ongoing basis to ensure compliance with co-production principles set out in Delivering Together. In addition, expertise may be sought from critical friends or advisers.

Partnering Arrangement with the Belfast Trust

48. The Southern and Belfast Trusts have agreed a partnering arrangement to share the Belfast Trust's experience of developing new approaches to delivering unscheduled care through its IMPACT programme.

DHH Pathfinder Group (DHHPG) Secretariat

49. The SHSCT will provide the secretariat for the DHHPG drawing upon support from other HSC organisations as required. The Secretariat is responsible for supporting the DHHPG Chair by overarching management of administration, and by providing regular performance reports/stocktakes on the work of workstreams against targets and work plans. The Secretariat will support the project on a daily basis, monitor the outputs of the various workstreams and monitor progress against timetable and

facilitate achievement of deadlines. During the course of the project, the Project Director or the Secretariat may identify the requirement for further resourcing to support the project. Where this is required, and is not currently available, this shall be communicated to the Acting Chief Executive as SRO in advance for approval and resource allocation.

Workstreams

50. Workstreams for the DHHPG will be established by the Project Director as required during the development of the Project.

Project Benefits

51. The new DHH Acute and Emergency Model of Care and underpinning initiatives will stabilise and secure long term service provision for the population of Newry and Mourne. The anticipated learning from the DHH pathfinder part of the Project is expected to inform wider regional system learning, scale and spread.

Communication and Stakeholders

Communication method

52. Regular progress reports will be provided by the workstreams to the DHHPG and ECRC via their respective Secretariats. Progress on the project will be reported, via CMO, to the Minister and Health Committee.

53. An internal communication plan will be developed to ensure all relevant stakeholders are kept informed.

Key Stakeholders

54. The key stakeholders for the project include but are not limited to:

- Minister
- NI Assembly Health Committee
- Local population
- Public Representatives
- Patient Representative Groups
- Trade Unions/Staff Representatives

- Department of Health
- Southern Health and Social Care Trust
- All other HSC Trusts
- Health and Social Care Board (HSCB)
- Public Health Agency (PHA)
- Southern Area Local Commissioning Group (SLCG)
- Northern Ireland Ambulance Service (NIAS)
- Northern Ireland Medical and Dental Training Agency (NIMDTA)
- Regulation and Quality Improvement Authority (RQIA)
- Newry, Mourne and Down District Council

55. As part of the mobilisation and establishment phase, a stakeholder mapping exercise will be undertaken, and communications approach and plan developed by the respective Secretariats.

Project Controls/Governance Arrangements

Project Initiation

56. The project will formally start when the SRO has approved this document following consideration by the Board of the Southern Trust.

Meetings

57. As a minimum ECRC meetings will be held in week 9, week 17 and week 21 to consider the outputs from DHHPG. DHHPG meetings will likely have high frequency but not less than weekly.

58. At their respective meetings, the ECRC and DHHPG will:
    - Receive brief verbal (and written) progress reports from DHHPG highlights on objectives, achievements, communication activity and forward objectives and any critical issues.
    - Raise any new risks that could impact the Project and determine any actions to militate against the risk and/or an approach to mitigate the risk. Discuss arising issues with a view to deciding how the item can be resolved; ensuring that

appropriate actions are put in place; not necessarily resolving the issues at the time.

- Maintain and monitor progress on actions arising from the meetings.
- Consider matters requiring approval and/or issues referred under escalation procedures.
- The ECRC will focus on those issues that have a major impact on the overall project and/or require resolution across workstreams or with operational services.
- Individual workstreams should deal with day-to-day issues affecting them.

Workstream Meetings

59. Workstream meetings will be held as deemed appropriate. The workstreams will provide performance reports/stocktakes on their work against targets and work plans agreed by the ECRC and DHHPG.

Exception Reporting

60. Exception reporting to the ECRC will be carried out by the Project Director as required.

Project Issues

61. Risks and Issues may be raised by anyone with an interest in the Project at any time. The respective Secretariats will manage the Risks and Issue Log.

Risk Management

62. A Risk Register will be maintained throughout the project by both the ECRC and DHHPG.

Cost/Financial Arrangements

63. Financial arrangements will be managed to normal governance procedures through the respective Secretariats. All expenses incurred by the ECRC will be approved by the Project Director. All expenses incurred by the DHHPG will be approved by the SHSCT's Interim Chief Executive or as delegated by him to the Secretariat. The main cost associated with the achievement of the overall objective of the Project will be staff time.

64. It should be recognised that this Project will need significant commitment from the workstreams. In some cases dedicated resources may be required for substantial periods, in all other cases appropriate resources will need to be provided in a timely manner regardless of other commitments if the project is to meet its deadlines and objectives. In so far as it is possible each of the workstreams will attempt to quantify these requirements in advance as part of the planning process. However, flexibility is required by all stakeholders to help deliver this project.

65. The expectation is that each workstream will be supported at various stages as required. The various project workstreams take day-to-day responsibility for ensuring that project deliverables are of appropriate quality and delivered in a timely manner and will provide written reports to the ECRC and DHHPG.

End Project Notification

66. The Project will be formally closed once an End of Project report has been considered by the TIG.

Annex 1

Table 1: Recruitment attempts for speciality doctor posts 2015 to present

Job File	POST ADVERTISED	LOCATION ADVERTISED	DATE ADVERTISED	MEDIA	NO. OF APPLICANTS	NAME OF APPOINTEE
73815019	Specialty Doctor	DHH	24/2/2015	BMJ (British Medical Journal), NHS jobs, ROI media	2	2 appointments
73815037	Specialty Doctor	DHH	21/04/2015	BMJ (British Medical Journal), NHS jobs, ROI media	1	no appointment
73815042	Specialty Doctor (2 or more posts)	DHH	05/05/2015	BMJ (British Medical Journal), NHS jobs, IMT (Irish Medical Times),	2	no one shortlisted
73815044	Specialty Doctor - 4 posts	DHH	19/05/2015	BMJ (British Medical Journal), NHS jobs, IMT (Irish Medical Times),	2	no one shortlisted
73815058	Specialty Doctor - Acute Medicine & Emergency Medicine	DHH	23/06/2015	BMJ (British Medical Journal), NHS jobs, JC (Job Centre)	0	no applicants
73815073	Specialty Doctor – Emergency Medicine (4	DHH	07/07/2015	BMJ (British Medical Journal),	1	1 appointment to DHH

	posts)			**NHS jobs, JC (Job Centre)**		
73815081	**Specialty Doctor - Acute Medicine & Emergency Medicine**	**DHH**	**21/07/2015**	**BMJ (British Medical Journal), NHS jobs, JC (Job Centre)**	**0**	**no applicants**
73815090	**Specialty Doctor (M3 website)**	**DHH**		**(M3 website)**	**1**	**no appointment**
73815114	**Specialty Doctor in Emergency Medicine (3 or more posts)**	**DHH**	**08/09/2015**	**BMJ (British Medical Journal), NHS Jobs**	**1**	**applicant withdrew**
73815118	**Specialty Doctor in Acute and Emergency Medicine**	**DHH**	**22/09/2015**	**BMJ (British Medical Journal), NHS Jobs, JC (Job Centre)**	**0**	**no applicants**
73816056	**Specialty Doctor**	**DHH**	**03/05/2016**	**BMJ (British Medical Journal), NHS jobs, JC (Job Centre)**	**0**	**No applicants**
73816084	**Specialty Doctor Emergency Medicine, DHH 1 or More posts**	**DHH**	**05/07/2016**	**BMJ (British Medical Journal), NHS Jobs, FB (Facebook)**	**1**	**1 appointment to CAH**

Annex 2

Table 2: Recruitment attempts for Consultant ED posts 2015 to present

POST ADVERTISED	LOCATION ADVERTISED	DATE ADVERTISED	MEDIA USED	NO. OF APPLICANTS	NAME OF APPOINTEE	COMMENTS
Consultant in Emergency Medicine (2 posts)	DHH	05/05/2015	BMJ (British Medical Journal), NHS jobs, IMT (Irish Medical Times),	0	**no applicants**	
Consultant in Emergency Medicine (2 posts)	DHH	07/07/2015	BMJ (British Medical Journal), NHS jobs, JC (Job Centre online)	0	no applicants	
Consultant in Emergency Medicine (2 or more posts)	CAH & DHH	1/9/2015	BMJ (British Medical Journal), NHS jobs,	0	No applicants	
Consultant Emergency Medicine (5 posts)	CAH & DHH	12/01/2016	BMJ (British Medical Journal) full page ad, IMT (Irish Medical Times), NHS Jobs, JC (Job Centre online)	3	**3 appointees (2 for CAH and 1 for CAH & DHH)**	
Consultant in Emergency Medicine (3 posts)	CAH/DHH	31/05/2016	BMJ (British Medical Journal) Display, NHS Jobs, FB (Facebook)	0	no applicants	
Consultant in Emergency Medicine (3 posts)	CAH/DHH	05/07/2016	BMJ Display, NHS Jobs, FB (Facebook)	0	**No applicants**	
Consultant in Emergency Medicine (3 posts)	CAH/DHH	12/10/2016	HSCRecruit	1	applicant declined post in Feb 17	
Consultant Emergency Medicine	DHH	06/12/2016	BMJ (British Medical Journal)/EMJ (Emergency Medical Journal) /NHSjobs/IMT (Irish Medical Times)/FB (Facebook) /HSC Recruit	0	no applicants	Recruitment Premium may be payable
Consultant in Emergency Medicine **(Readvertised)**	DHH	14/03/2017 ***)***	BMJ (British Medical Journal)/EMJ (Emergency Medical Journal) /NHSjobs/IMT (Irish Medical Times)/FB (Facebook) /HSC Recruit	0	No applicants	Recruitment Premium may be payable

Annex 3

NIMDTA scoring system. This department has been already given a RED rating before the most recent departures.

	Grading Outcome	Description
A1	**Excellent**	**Exceeds expectations for a significant number of GMC domains**
A2	**Good**	**Meets expectations under all GMC domains**
B1	**Satisfactory**	**Areas for improvement identified, but no areas of significant concern**
B2	**Satisfactory (with conditions)**	**Areas for improvement identified. Specific concern to be addressed**
C	**Borderline**	**Areas of concern to be addressed**
D	**Unsatisfactory-Not able to assess**	**Unable to assess due to lack of trainee and/or trainer engagement with visit**
E	**Unsatisfactory-Urgent action**	**Urgent action required on areas of significant concern**
F	**Unsatisfactory-Unsafe Training Environment – Immediate Action**	**Immediate action to be taken by notification to nominated Trust representative. Possible withdrawal of trainees**

Annex 4

Attendances at Emergency Care Departments (December 2015 and December 2016) Department	**New Attendances**		**Unplanned Review Attendances**		**Total Attendances**	
	Dec15	**Dec16**	**Dec15**	**Dec16**	**Dec15**	**Dec16**
Mater	3,425	3,671	102	130	3,527	3,801
Royal	7,028	7,357	233	194	7,261	7,551
Victoria						
RBHSC	2,894	3,002	269	333	3,163	3,335
Antrim	6,037	6,416	298	346	6,335	6,762
Area						
Causeway	3,212	3,198	225	259	3,437	3,457
Ulster	7,046	7,572	167	168	7,213	7,740
Craigavon	6,345	6,578	358	405	6,703	6,983
Area						
Daisy Hill	3,787	4,325	187	240	3,974	4,565
Altnagelvi	4,788	4,716	250	246	5,038	4,962
n Area						
South	2,510	2,688	160	121	2,670	2,809
West						
Acute						
Type 1	**47,072**	**49,523**	**2,249**	**2,442**	**49,321**	**51,965**
Type 2	**3,104**	**3,343**	**105**	**146**	**4,388**	**4,790**
Type 3	**4,827**	**5,119**	**198**	**220**	**5,025**	**5,339**
Northern	**55,003**	**57,985**	**2,552**	**2,808**	**58,734**	**62,094**
Ireland						
10,11						

Appendix 2
Population Needs Assessment

Southern Health and Social Care Trust

Quality Care - for you, with you

DAISY HILL HOSPITAL
Pathfinder Group

Personal and Public Involvement (PPI) Involving you, improving care

Daisy Hill Hospital Pathfinder Project

Report of the Needs Assessment Group

20th December 2017

Needs Assessment Report – 20th December 2017

An Interim Needs Assessment Report was submitted to ECRC on 23rd August 2017. A summary of updates which have been incorporated into this final report is as follows:

- Section 1 - 1.2 and 1.3 updated to include 2016/17 data and DHH alternatives to admission and inpatient flow audit findings
- Section 2 - interim report section removed and 2.2 final report section added
- Section 4.1 Summary section - 2016/17 data included where available and section on admission and inpatient audit findings added

Updates on tables and figures:

Table	**Change**
4.1	14/15 data changed to 16/17 source updated Definition of attendances added Corresponding changes to text
4.5	14/15 data changed to 16/17 data source updated Newry & Mourne data added (new) Patterns have changed and are reflected in changes to corresponding text
Figure	**Change**
4.1	14/15 data changed to 16/17 data source updated (ages now in 5 year bands)
4.2	14/15 data changed to 16/17 data source updated
4.3	14/15 data changed to 16/17 data source updated

- Section 4.10 (Alternatives to admission ED audit summary) and 4.11 (Audit of inpatient flow) added to include addition of Tables 4.10-4.12 and 4.11-4.13

- Section 5.7 summary of Acute Care at Home audit added

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1.0 Executive Summary

1.1 The place, the people

Compared to Northern Ireland as a whole, the Newry and Mourne area:

- Has a younger population;
- Population growth is projected to rise at a higher rate, particularly the older population, compared to the N Ireland population
- Has a higher birth rate;
- Slightly higher average life expectancy:
    - 78 years for men compared to the Northern Ireland average of 77.7 years,
    - 82.3 years for women compared to the Northern Ireland average of 82.1 years;
- The most common cause of death in 2015 was malignant neoplasm (28% of deaths), followed by circulatory disease (24.3%);
- Using primary care data for the Newry & Mourne Integrated Care Partnership (ICP), consisting of a practice population of 118,801 people, the Newry & Mourne ICP had:
    - 47,173 patients in 2015/16 with one or more chronic conditions;
    - Many patients, particularly those in the older age group, with multiple comorbidities;
    - 4,832 patients with 3 or more comorbidities

1.2 Service Utilisation

- DHH is ranked the sixth busiest ED in Northern Ireland with 53,481 new and unplanned review attendances in 2016/17;
- Using 2014/15 and 2016/17 data, at Northern Ireland level factors associated with ED attendance were age (infants and young adults accounted for the largest numbers of attendances), living in a deprived area and living near to a hospital;
- ED attendances were more likely to result in hospital admission with advancing age. From the age of 75 years onwards, at least half of attendances result in admission.

In 2016-17 the Southern Local Commissioning Group (LCG) area population:

- Had the third highest ED attendance rate in Northern Ireland;
- Used the second lowest number of emergency bed days per head of population;
- Had the lowest rate of emergency admissions to hospital for ambulatory-care sensitive chronic conditions and spends the smallest number of bed days in hospital with these conditions.

1.3 Daisy Hill Hospital

- There has been an increase of attendances of 15% for adults and 28% for children in the 3 year period to 2016/17;
- 85% of ED attendees come from Newry & Mourne and Banbridge Local Government Districts and 1.2% from the Republic of Ireland;
- Medical admissions have increased by 35% between the hours of 8pm and 8am, this is particularly noticeable for patients aged >75 years;
- GP Out of Hours (GP OOH) in DHH was closed on 60 occasions in 2016/17. SHSCT have put in a range of measures to encourage GPs to work in OOH services;
- The throughput per bed and average Length of Stay in DHH compares favourably with similar sized hospitals in Northern Ireland
- In August 2017 a multidisciplinary clinically led retrospective audit of all admissions via DHH ED from 10-16th Oct 16 inclusive found that:
  - Of 210 total admissions alternatives to admission were identified in 62 cases (29.5%). The majority of these (85.5%) were admissions to a medical specialty.
  - 38.1% of all medical admissions had potential alternatives identified.
- A Health and Social Care Board (HSCB) Senior Nurse Review Team audit of 50 adult inpatient journeys in DHH, (707 days of care August – September 2017), identified many areas of good practice. Areas for improvement were also highlighted including the need for:
  - Senior medical decision making- both at the time of admission and twice daily review as an inpatient

- Timely declaration of being 'medically fit' for discharge
- Increased access to diagnostics with minimisation of ward based delays in arranging investigations and actioning results
- Active discharge planning

1.4 Right Care in Right Place

The best clinical outcomes require skills and expertise in diagnostics and interventional treatments which cannot all be delivered in every hospital.

There are a number of key services and clinical interfaces that ensure that patients requiring unscheduled care receive the correct care in the appropriate place. These include:

- *Primary Percutaneous Intervention (PCI)* – patients who have had an ST Elevation Myocardial Infarction where appropriate are taken directly to the Royal Victoria Hospital (RVH) for primary PCI;
- *Major Trauma* – it is anticipated that there will be at least 370 cases of major trauma annually in N Ireland, which are taken to the regional Major Trauma centre in the RVH
- *Critical Care* – DHH does not have a critical care unit. Patients needing critical care are transferred to Craigavon Area Hospital (CAH) or the RVH. There is a surgical high dependency unit and in 2015/16 there were plans to strengthen this service with additional consultant intensivist sessions from the CAH team.
- *NIAS Treat and Leave Protocols* – following agreed protocols Ambulance personnel may either treat a patient and/or refer them on to another service such as the falls service;
- *Mental Health Services for Adults and Children* which provide in-reach to the acute hospitals as well as supporting people in the community. They include:
  - Alcohol and substance misuse liaison,
  - Over 65 year old liaison – Memory Liaison and Psychiatry of Old Age,
  - Under 65 year old liaison,
  - Child and Adolescent Mental Health Services (CAMHS);

- *Community Based Services* which can provide alternatives to hospital admissions and attendance at ED attendances and include:
    - GP Out of Hours Service,
    - Acute Care at Home,
    - Palliative Care Team,
    - Heart Failure Service,
    - Respiratory Team.
- *Hospital based paediatric ambulatory care services* – provide an alternative to hospital admissions for GPs.
- *Community services and nursing homes,* which although their main roles are not to deliver unscheduled care, need to work closely with the hospital to allow prompt discharge of patients, thus ensuring there will be capacity within DHH to accept new patients.

1.5 Accessibility

- With the current configuration of type 1 Emergency Departments, 99.6% of patients (registered with a GP) in Northern Ireland are within 1 hour drivetime of and Emergency Department.
- It should be noted that there is no definitive standard which indicates an appropriate drivetime to an ED.
- A Type 1 ED treating in excess of 50,000 patients per year would be expected to have a fully staffed 3 Tier rota of junior, middle and senior grade doctors and appropriate nursing support over each 24 hour period.
- The report identifies the challenge which would be presented in regards to access times for patients should a 24/7 type 1 ED service not be available in DHH. This would increase travel time to access services for some individuals in the population.
- The number of people in Northern Ireland living within a 1 hour drivetime to a Type 1 ED, based on GP registered population, would reduce from 99.6% to 97.5%.

1.6 An Overview of Models of Urgent and Emergency Care and their Effectiveness

A rapid review approach of examining existing reviews of models of urgent and emergency care was undertaken on behalf of the needs assessment group. In the face of continuously rising demands, urgent and emergency health care services around the globe are adopting alternative models of care in order to remain safe and sustainable.

The wide scope of this review and numerous models outlined reflects the reality of the complexity of urgent and emergency care systems.

Although the evidence base on the effectiveness of models of urgent care is improving it remains in development, with gaps in particular in relation to assessment of economic impacts and cost effectiveness. Whilst strong positive evidence has emerged for some models including 'ambulance/paramedic triage to the community, condition-specific rehabilitation, additional clinical support to people in nursing and care homes, improved end-of-life care in the community, remote monitoring of people with certain long-term conditions and support for self-care'[1], it is also recognised that absence of evidence may not necessarily equate to negative outcomes in other interventions, particularly in small scale changes. However this reinforces the need for robust evaluations, of newer models of care going forward, and should not be underestimated.

[1] Imison C et al. *Shifting the balance of care Great expectations*. Research Report. Nuffield Trust: 2017 Full report accessed at: https://www.nuffieldtrust.org.uk/files/2017-02/shifting-the-balance-of-care-report-web-final.pdf

2.0 INTRODUCTION

2.1 Background

2.1.1 The Southern Health & Social Care Trust (Southern Trust) is fully committed to delivering safe, sustainable 24/7 emergency services at Daisy Hill Hospital (DHH).

2.1.2 A recent regional summit, convened by the Department of Health (DOH) on Tuesday 2nd May 2017, secured system-wide support to enable the Southern Trust to address immediate pressures and to stabilise the provision of Emergency Department (ED) services at DHH.

2.1.3 On the 16th June 2017 the DOH issued a Project Initiation Document (PID) providing guidance to the Southern Trust on establishing a clinically-led, managerially supported Pathfinder Project "to develop an operational model for a long term ED service model for the Newry and Mourne area with identification of regional learning".

The PID outlines the scope of work required, the project objectives and the timescales for completion.

2.1.4 The DHH ED Pathfinder Project provides a valuable opportunity to draw on the collective expertise of multidisciplinary health professionals from across Northern Ireland, alongside the experience and views of the local community, to develop proposals for the delivery of safe and sustainable emergency care services that will meet the needs of people in the Newry & Mourne area.

2.1.5 The key project milestones are identified in a letter from the Permanent Secretary issued 23rd June 2017 to the Trust's Acting Chief Executive and reflected in the PID. These are listed below and are based on a 20 week programme of work, which commenced following Trust Board approval on 27th June 2017.

- Report and recommendations on population health needs assessment (end of Week 8) – 23rd August 2017

- Interim report and recommendations on all other Objectives (end of Week 16) – 18th October 2017
- Final report (end of Week 20) – 15th November 2017

2.1.6 The Daisy Hill Hospital Pathfinder Group (DHHPG) agreed to establish a Needs Assessment Group which was tasked with exploring the medium and long term acute unscheduled care needs of the Newry and Mourne Population, including the role of the ED in Daisy Hill Hospital to take account of the recognised clinical need, population size and growth.

2.1.7 Needs Assessment is a systematic approach to ensuring that the health service uses its resources to improve the health of the population in the most efficient way.[2] It describes health problems of a population, identifies inequalities in health and access to services and identifies priorities for the most effective use of resources.

2.1.8 The Group, Chaired by Dr Brid Farrell, Public Health Agency (PHA), met on 27th July 2017 and 10th August 2017 and agreed the following schedule of work:

- Agreement on the evidence required which would be necessary to inform a population health needs assessment for unscheduled care, taking account of access and travel times as appropriate;
- Review of available activity at NI level, SHSCT level and Newry & Mourne level to include population/demographics; DHH ED Activity Analysis; travel distances and times; activity for GP OOH; Acute Care at home and available audits on other services;
- Consideration of evidence base for modern timely care, including learning from other models such as e-health/IT solutions and the potential development of other services including looking at acute care at home, patient flows in ED and the hospital, minor injuries, short stay

[2] Wright J et al. Development and importance of health needs assessment *BMJ*. 1998; 316(7140): 1310–1313

observation, clinical assessment, speciality wards, acute medical units, NIAS ‘see and treat’ protocols, communication with GPs; and

- Development of a report to summarise the key findings and considerations of the needs assessment group.

The membership of the group is shown in **Appendix 1**.

2.1.9 This final report updates the interim report of 30th August 2017. It incorporates ED attendance and admission data for 2016/17 and summarises the outcomes of recent audits in DHH. This includes the findings of an audit of ED admissions, examining potential alternatives to admission, and an audit of adult inpatient activity, reviewing patient flow (sections 4.10 and 4.11). A summary of an audit of the Trust’s Acute Care at Home service conducted by the HSCB has also been added (section 5.7).

3.0 The Place, the People and Current Organisation of Services

3.1 Summary

- Compared to Northern Ireland as a whole, the Newry and Mourne area:
  - Has a younger population;
  - Population growth is projected to rise at a higher rate, particularly the older population, compared to the N Ireland population
  - Has a higher birth rate;
  - Slightly higher average life expectancy:
    - 78 years for men compared to the Northern Ireland average of 77.7 years,
    - 82.3 years for women compared to the Northern Ireland average of 82.1 years;
- The most common cause of death in 2015 was malignant neoplasm (28% of deaths), followed by circulatory disease (24.3% deaths);
- Using primary care data from the Newry & Mourne Integrated Care Partnership (ICP) consisting of a practice population of 118,801 people, the Newry and Mourne ICP had:
  - 47,173 patients in 2015/16 with one or more chronic conditions;
  - Many patients, particularly those in the older age group, with multiple comorbidities;
  - 4,832 patients with 3 or more comorbidities.

3.2 Population Profile (Northern Ireland Statistics & Research Agency)

Table 3-1 gives the Population profile for Northern Ireland, the Southern Health and Social Care Trust (SHSCT) and Newry and Mourne Local Government District (LGD)

Table 3-1: NISRA 2016 Mid-Year Population Estimates by Age Group

	Northern Ireland		SHCST		Newry and Mourne	
Age Groups (years)	Population	%	Population	%	Population	%
0-16	411,264	22.1	91,168	24.2	26,085	25.0
17-64	1,153,118	61.9	231,925	61.5	64,119	61.5
65-79	221,551	11.9	40,759	10.8	10,565	10.1
80+	76,204	4.1	13,379	3.5	3,532	3.4
Total	1,862,137	100	377,231	100	104,301	100

- Compared to the overall Northern Ireland population Newry and Mourne has a younger population – 25.0% in the 0-16 age group compared to the NI average of 22.1%[3];
- The population projections between 2017 and 2039 predict a significantly higher increase in the total population for Newry and Mourne of 17.7% compared to the NI average of 7.9%[4];
- The predicted growth is most significant for the older population. Between 2017 and 2039 the age 65 and over population for Newry and Mourne is projected to rise by 82.1% compared to the NI average of 63.8%[2];
- The area is neither the least nor most deprived;
- The birth rate is significantly higher in Newry and Mourne at 72.8 per 1,000 female population (between 15 – 44 years old) compared to NI as a whole at 66.0[5].

Further detail on the population profile is provided in **Appendix 2 -** Northern Ireland Neighbourhood Information Service (NINIS) Area Profile Report for Newry, Mourne and Down.

[3] Northern Ireland Statistics and Research Agency (NISRA) mid-year population estimates for 2016 by 'old' Local Government District (LGD) ie 1992 LGD

[4] NISRA 2014 based population projections by 'old' Local Government District (LGD) ie 1992 LGD

[5] NISRA Births for 2015 (Newry Mourne & Down)

3.3 Causes of Death

- Average life expectancy for males in Newry, Mourne and Down LGD is 78 years (NI average is 77.7 years), and for females it is 82.3 years (NI average is 82.1 years);
- Table 3-2 gives the numbers of deaths in Newry and Mourne Local Government District during 2015 by cause of death. The overall numbers for Northern Ireland are also provided. Malignant neoplasm was the most common cause of death and accounted for 29.4% of deaths;

Table 3-2: Deaths by Cause of Death in 2015 (NISRA)

	Total Deaths	Malignant Neoplasms		Circulatory Diseases		Respiratory Diseases		External Causes		Suicide and undetermined intent	
		Nos	%	Nos	%	Nos	%	Nos	%	Nos	%
Northern Ireland	15548	4361	28.0%	3773	24.3%	2236	14.4%	784	5.0%	318	2.0%
Newry and Mourne LGD	739	217	29.4%	178	24.1%	91	12.3%	36	4.9%	13	1.8%

- Table 3-3 shows the numbers of death registrations for Newry and Mourne between 2010 – 2015, by place of death. The majority of people died in hospital (42.6% in 2015), with 30.4% of people dying in their own home.

Table 3-3: Place of Death – Deaths in Newry and Mourne LGD, 2015 (NISRA)

	Year of Death Registration					
Place of Death	2010	2011	2012	2013	2014	2015
Home	227	213	245	229	223	225
Hospital	316	265	299	311	301	315
Nursing home	74	89	96	124	102	114
Other house (not home)	23	13	25	22	20	16
All other places	19	15	9	6	10	10
Total Deaths	**715**	**643**	**719**	**712**	**709**	**739**

3.4 The Health of the Population

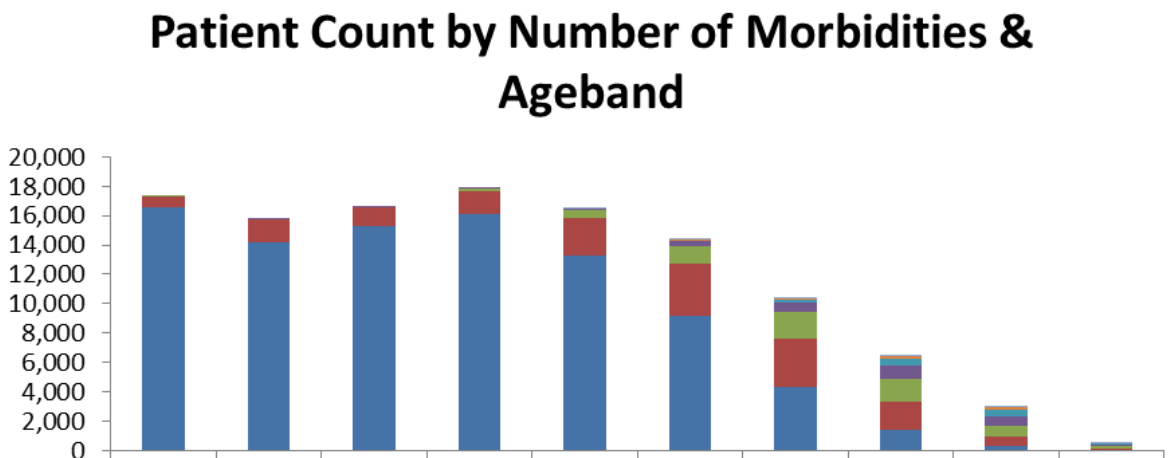
There are 26 GP practices in Newry & Mourne Integrated Care Partnership (ICP). All of these practices provided data about selected conditions for their practice population. The number of patients register with GP practices in Newry & Mourne ICP was 118,801. Using data from the Newry & Mourne ICP the numbers of patients suffering from specified long term conditions (LTCs) are given in Table 3-4.

Table 3-4: Numbers of Patients in Newry / Mourne ICP Area with Named Clinical Condition

Condition	Male	Female	Total
Asthma	3,527	3,651	7,178
Atrial Fibrillation	934	713	1,647
Chronic Kidney Disease	1,761	2,688	4,449
Chronic Obstructive Pulmonary Disease	954	850	1,804
Coronary Heart Disease	2,385	1,322	3,707
Dementia	171	421	592
Diabetes	2,553	1,930	4,483
Epilepsy	486	425	911
Heart Failure	558	419	977
Hypertension	6,811	7,477	14,288
Hypothyroidism	757	3,429	4,186
Peripheral Arterial Disease	419	197	616
Rheumatoid Arthritis	193	401	594
Stroke & TIA	932	809	1,741
Totals	22,441	24,732	47,173

Many patients, particularly those in the older age group, suffer from more than one chronic condition. Figure 3-1 shows the number of patients with co-morbidities by age band.

Figure 3-1: Count of Morbidities by Age Band for Newry/Mourne ICP Patients in 2015/16



	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90+
6+					1	1	33	101	112	27
5					4	21	80	182	219	35
4					13	66	207	480	384	81
3		1	3	19	73	320	657	929	667	116
2	10	33	47	126	515	1,163	1,750	1,570	782	114
1	774	1,488	1,271	1,626	2,577	3,583	3,348	1,867	587	84
0	16,530	14,212	15,293	16,082	13,291	9,178	4,304	1,398	307	59

Further detail on the health of the patients in Newry and Mourne area is provided in **Appendix 3** – Population Profile based on Primary Care Data for Newry / Mourne Integrated Care Partnership Area.

Daisy Hill Hospital (DHH)

In addition to ED the following services are provided in DHH.

In patient Services

Anaesthetics, General Surgery, General Medicine, Cardiology, Paediatrics, Geriatric Medicine, Obstetrics (Including A Midwifery Led Unit), Gynaecology, Respiratory Medicine, Nephrology, High Dependency Unit And Special Care Baby Unit.

Day Case/Outpatient Services

General Surgery, Ear Nose and Throat, Pain Management, Trauma And Orthopaedics, General Medicine, Endoscopy, Endocrinology, Nephrology, Cardiology, Respiratory, Gastroenterology, Dermatology, Paediatrics, Geriatric

Medicine, Haematology, Gynaecology, Obstetrics Antenatal And Post Natal, Community Dentistry.

Visiting Consultant Services

Ophthalmology, Palliative Medicine, Neurology, Oral Surgery.

Clinical Support Services

Radiology, pathology/labs, pharmacy, Allied Health Professionals.

4.0 Service Utilisation Daisy Hill Hospital

4.1 Summary

- Using data for Northern Ireland, factors associated with ED attendance were age (infants and young adults accounted for the largest numbers of attendances), living in a deprived area and living near to a hospital;
- ED attendances were more likely to result in hospital admission with advancing age. From the age of 75 onwards, at least half of attendances result in admission.

The Southern LCG area population:

- Had the third highest ED attendance rate in Northern Ireland;
- Used the second lowest number of emergency bed days per head of population;
- Had the lowest rate of emergency admissions to hospital for ambulatory-care sensitive chronic conditions and spends the smallest number of bed days in hospital with these conditions.

Daisy Hill Hospital

- There has been an increase of attendances of 15% for adults and 28% for children in the 3 year period to 2016/17;
- 85% of ED attendees come from Newry & Mourne and Banbridge Local Government Districts and 1.2% from the Republic of Ireland;
- Medical admissions have increased by 35% between the hours of 8pm and 8am, this is particularly noticeable for patients aged >75 years ;
- GP Out of Hours (GP OOH) base in DHH was closed on 60 occasions in 2016/17. SHSCT have put in a range of measures to encourage GPs to work in OOH services;
- The throughput per bed and average Length of Stay in DHH compares favourably with similar sized hospitals in Northern Ireland.

Audit of ED admissions

- In August 2017, a multidisciplinary clinically led retrospective audit of all admissions via DHH ED from 10-16th Oct 2016 inclusive found that:
    - Of 210 total admissions alternatives to admission were identified in 62 cases (29.5%). The majority of these (85.5%) were admissions to a medical specialty.
    - 38.1% of all medical admissions had potential alternatives identified and the greatest scope for development of alternative pathways appears to be within medical specialities.

Audit of inpatient flow

- In August-September 2017 the HSCB Senior Nurse Review Team audited 50 adult inpatient journeys (707 days of care) in DHH. Many areas of good practice were highlighted. Areas identified for improvement included the need for:
    - Senior medical decision making- both at the time of admission and twice daily review as an inpatient.
    - Timely declaration of being 'medically fit' for discharge.
    - Increased access to diagnostics with minimisation of ward based delays in arranging investigations and actioning results.
    - Active discharge planning.

4.2 Northern Ireland

Table 4-1 below shows the total number of new and unplanned review attendances at each Emergency Department, ranked from highest to lowest, with DHH being ranked the sixth busiest ED with 53,481 attendances in 2016/17.

Table 4-1: Emergency Department Attendances across Northern Ireland

	Emergency Department	Total Attendances* 16/17
1.	Ulster Hospital	92,931
2.	Royal Victoria Hospital	92,643

	Emergency Department	Total Attendances* 16/17
3.	Craigavon Area Hospital	83,325
4.	Antrim Area Hospital	82,445
5.	Altnagelvin Hospital	62,559
6.	Daisy Hill Hospital	53,481
7.	Mater Hospital	47,771
8.	Causeway Hospital	44,290
9.	Royal Belfast Hospital for Sick Children	38,588
10.	South West Acute Hospital	33,327

(Source: Information Analysis Directorate Hospital Statistics: Emergency Care 2016/17)

* Total new and unplanned attendances

Patterns of Emergency Department (ED) attendance are apparent across Northern Ireland. The information in this section was collated by the Health and Social Care Board (HSCB) and Public Health Agency (PHA).

In 2016/17 ED attendances were most common in those aged under 5 years with a second peak around 20- 24 years of age. Those aged 0-4 years accounted for the largest number of emergency inpatient admissions, and the second most common age was 80-84 years. The ratio of admissions to attendances increased consistently with age to more than 66% for those aged over 90 years (Figure 4-1 and Figure 4-2). The age profile of ED attendees in DHH is shown in Figure 4-3.

Figure 4-1: N.Ireland Number of ED Attendances and Emergency Admissions by Age, April 16 - March 17
Source:HSCB/PHA

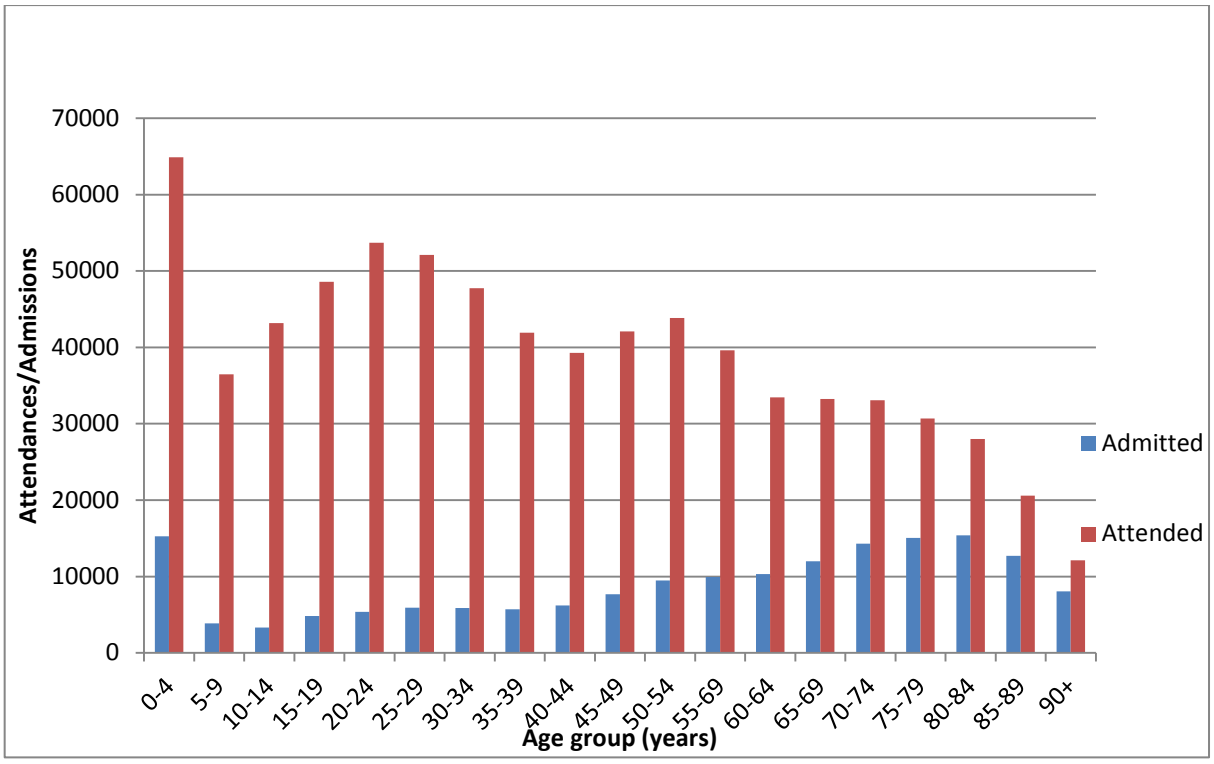


Figure 4-2: N. Ireland Ratio of Emergency Admissions to ED Attendances by Age, April 16 - March 17
Source: HSCB/PHA

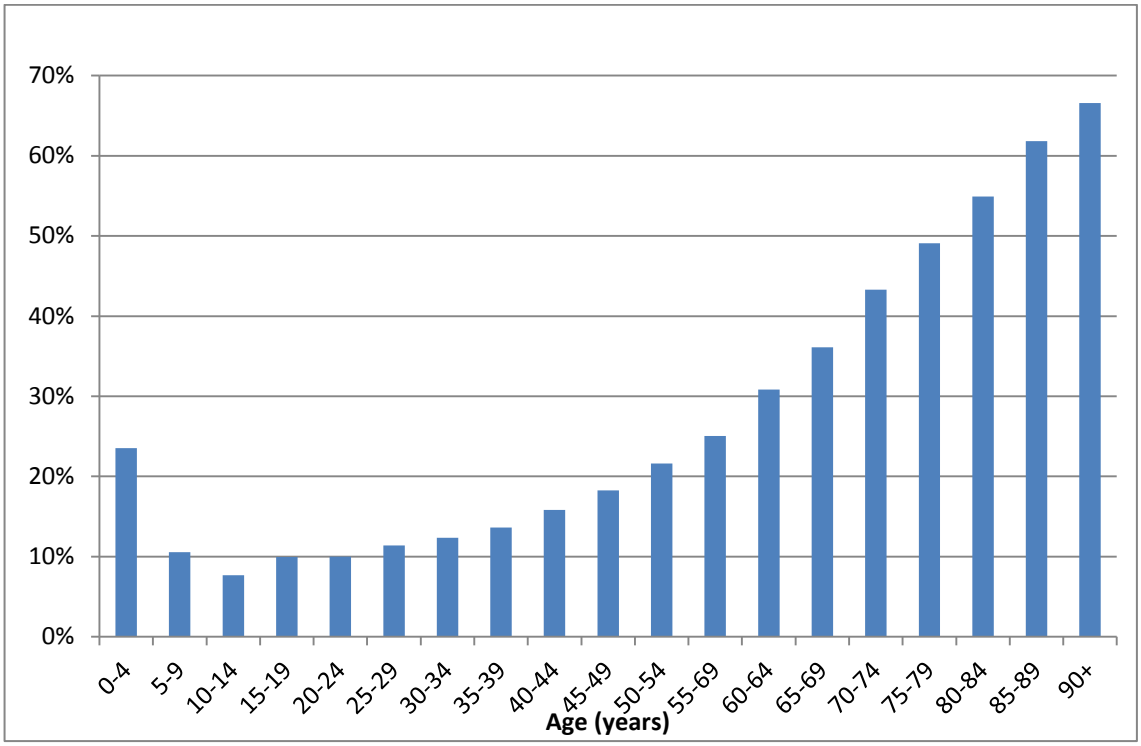
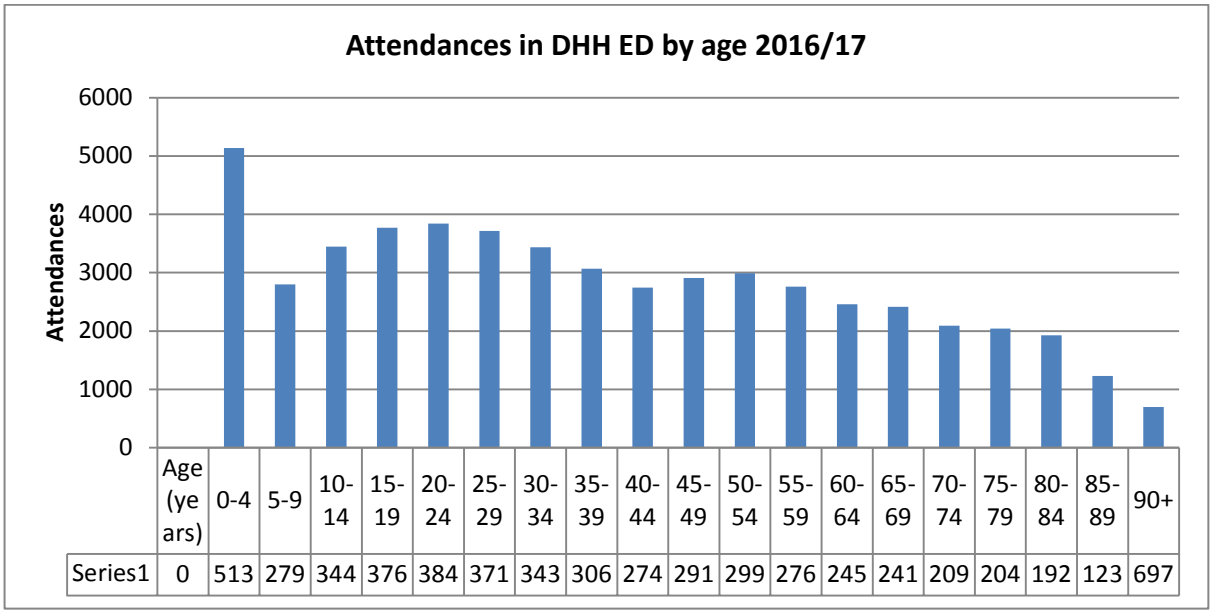


Figure 4-3 below shows the equivalent age breakdown for DHH ED attendances.

Figure 4-3: DHH ED Attendances by Age, 2016/17



Age (years)	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90+
Series1	0	513	279	344	376	384	371	343	306	274	291	299	276	245	241	209	204	192	123	697

4.3 Deprivation

In Northern Ireland in 2014/15 the greatest numbers of ED attendances were made by people who live in the most deprived decile of Super Output Areas (SOAs) (decile 1). The socioeconomic pattern was much less pronounced for admissions than attendances, suggesting that most of the excess attendances were for conditions that did not require hospital admission. For DHH, the socio-economic gradient for ED attendances was not observed.

Table 4-2: Percentage of ED attenders at DHH who live in each NIMDM deprivation decile. April 2014-March 2015

ED	1	2	3	4	5	6	7	8	9	10
	(Most Deprived)									(Least Deprived)
Daisy Hill	1.80%	14.40%	20.70%	13.00%	17.80%	12.80%	12.60%	2.40%	3.80%	0.80%

4.4 Reasons for Hospital Admission in Southern HSCT

The most common primary diagnostic groups for emergency hospital admissions were respiratory (infections and COPD), cardiac (chest pain, myocardial infarction and heart failure), abdominal pain, fractured femur and alcohol-related (Table 4-3).

The largest causes of inpatient hospital bed day use included urinary system disorders (Table 4-4).

Table 4-3: Most common diagnoses for emergency hospital admissions, by SHSCT (Diagnoses with >1000 admissions regionally shown), April 2014 - March 2015

Code	Label	Southern HSCT
J18	Pneumonia, organism unspecified	1426
R07	Pain in throat and chest	889
N39	Other disorders of urinary system	1192
R10	Abdominal and pelvic pain	1218
J44	Other chronic obstructive pulmonary disease	948
J22	Unspecified acute lower respiratory infection	874
I21	Acute myocardial infarction	721

Table 4-4: Diagnoses associated with greatest numbers bed-days for admitted patients by SHSCT of admission (with >5000 bed days regionally), April 2014 - March 2015

Code	ICD-10 group	Southern HSCT
J18	Pneumonia, organism unspecified	11,601
S72	Fracture of femur	8723
N39	Other disorders of urinary system	8186
J44	Other chronic obstructive pulmonary disease	5132
I50	Heart failure	5453
I63	Cerebral infarction	7441

Table 4-5 shows that in 2016/17 of the five LCG areas in Northern Ireland, the Southern LCG area population:

- Had the third highest ED attendance rate in Northern Ireland;
- Used the second lowest number of emergency bed days per head of population;

- Had the lowest rate of emergency admissions to hospital for ambulatory-care sensitive chronic conditions and spends the smallest number of bed days in hospital with these conditions.

Table 4-5: Standardised measures of ED attendance and Emergency Hospital Admissions in Southern LCG per 1,000 population, 1st April 2016 to 31st March 2017

(*Only patient activity that could be assigned to an LCG has been included)

	Southern LCG (with confidence intervals)	Newry & Mourne LGD (with confidence intervals)	Range across Northern Ireland LCGs
Attendances per 1,000 population, directly standardised for age and sex (95% CI)	422.8 (420.6 - 424.9)	419.7 (415.6 - 423.9)	369.7-427.1
Admissions, per 1,000 population, directly standardised for age (95% CI)	96.8 (95.7 - 97.9)	98.8 (96.7 - 101.0)	90.4-118.8
Zero-day Admissions, per 1,000 population, directly standardised for age (95% CI)	10.0 (9.7 - 10.3)	9.3 (8.7 - 10.0)	9.7-25.2
Admissions Excluding Zero-day, per 1,000 population, directly standardised for age (95% CI)	86.8 (85.7 - 87.8)	89.5 (87.4 - 91.5)	80.3-93.6
Emergency Bed Days, per 1,000 population, directly standardised for age (95% CI)	537.3 (534.6 - 540.0)	553.7 (548.5 - 559.0)	526.3-672.0
Admissions for Ambulatory-care Sensitive Chronic Conditions, per 1,000 population, directly standardised for age (95% CI)	8.0 (7.6 - 8.3)	8.5 (7.8 - 9.1)	8.0-10.7
Emergency Bed Days for Ambulatory-care Sensitive Chronic Conditions, per 1,000 population, directly standardised for age (95% CI)	46.1 (45.3 - 46.9)	48.4 (46.8 - 50.0)	46.1-77.8

Table 4.5 also highlights that compared with the Southern LCG population average the population of Newry and Mourne LGD had:

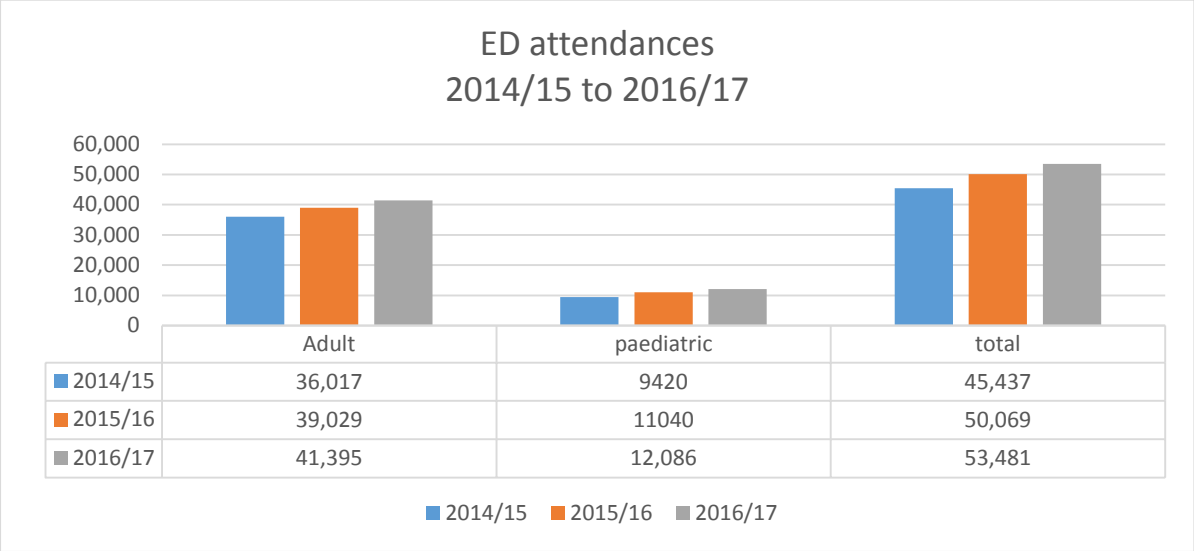
- Lower attendance rates at ED
- Higher rate of admission (excluding zero day admissions)
- Higher use of emergency bed days
- Higher rate of admissions for ambulatory sensitive conditions and spent more time in hospital with these conditions.

4.5 Daisy Hill Hospital (DHH)

In this section we will examine the trends in Emergency Department (ED) activity in DHH since 2014/15 using data held in the data warehouse. Figure 4-4 shows that

there has been an increase in attendances of 15% for adults and 28% for paediatrics in the 3 year period. Paediatrics refers to anyone up to the day before their 16th birthday.

Figure 4-4: ED Attendances DHH, 2014/15 – 2016/17

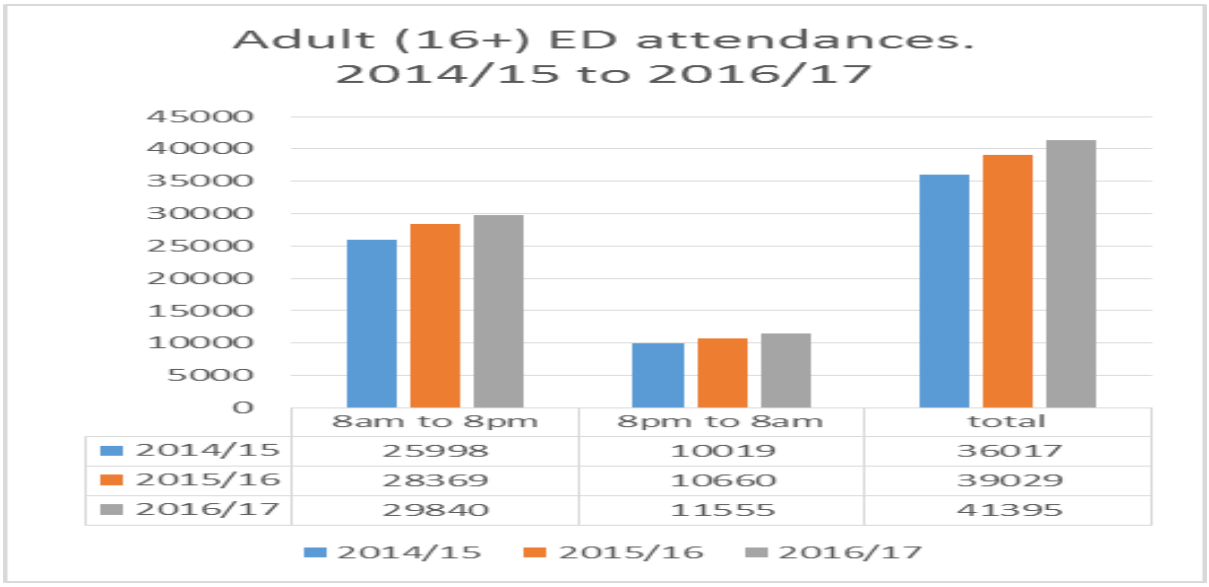


	Adult	paediatric	total
2014/15	36,017	9420	45,437
2015/16	39,029	11040	50,069
2016/17	41,395	12,086	53,481

4.5.1 Adults

In the three year time period, adult attendances at ED increased by 15% during the day and also at night. By 2016/17 the daily average attendance of adults attending ED on weekday nights was 32 and 246 adults attended at weekends.

Figure 4-5: Adult ED Attendances at DHH, 2014/15 – 2016/17

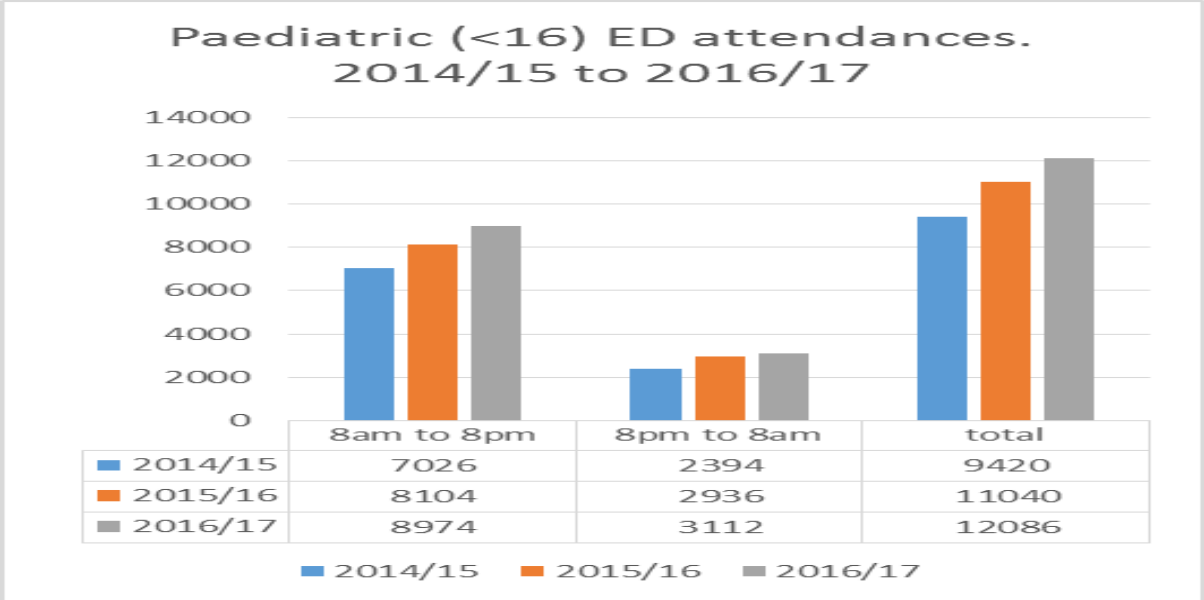


	8am to 8pm	8pm to 8am	total
2014/15	25998	10019	36017
2015/16	28369	10660	39029
2016/17	29840	11555	41395

4.5.2 Paediatrics

In the three year time period, paediatric attendances at ED increased by 27% during the day and by 30% at night. By 2016/17 the daily average attendance of children attending ED on weekday nights had risen to 9 and 74 children attended at weekends. GPs can arrange direct admission to paediatrics ward and also send children to a paediatric ambulatory ward for assessment, investigation and a short period of observation.

Figure 4-6: Paediatric ED Attendances at DHH, 2014/15 – 2016/17



	8am to 8pm	8pm to 8am	total
2014/15	7026	2394	9420
2015/16	8104	2936	11040
2016/17	8974	3112	12086

4.5.3 Medical and Surgical Admissions via ED

When GPs want to admit an adult patient to DHH, this is arranged via ED. In the three years up to 2016/17 the numbers of medical admissions between 8am and 8pm has remained unchanged, however medical admissions between 8pm and 8am have increased by 35% (Figure 4-7). For surgical admissions there has been no change in admission numbers. For paediatric patients GPs can admit directly to the paediatric ward.

Figure 4-7: Medical Admissions via ED, 2014/15 – 2016/17

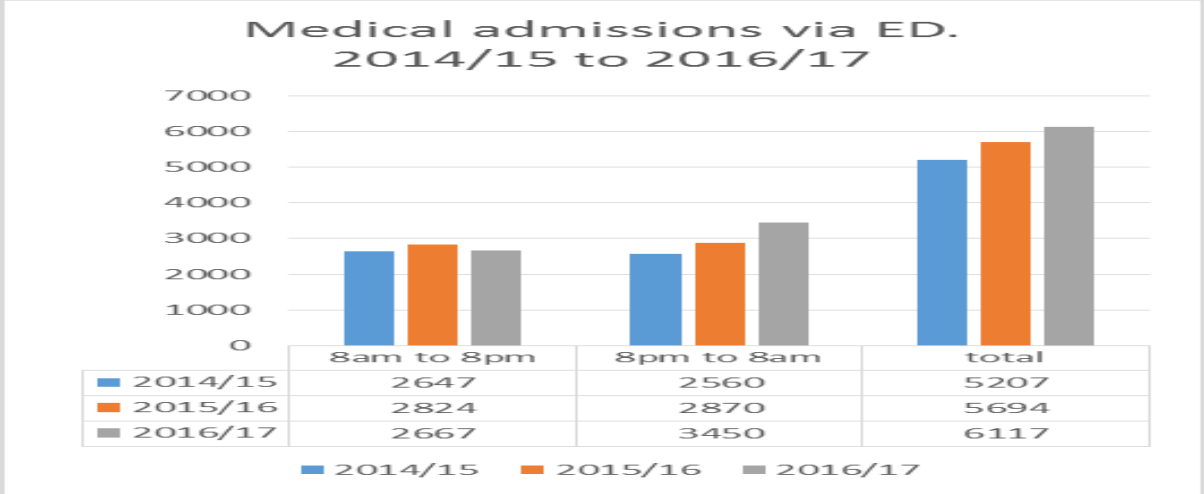
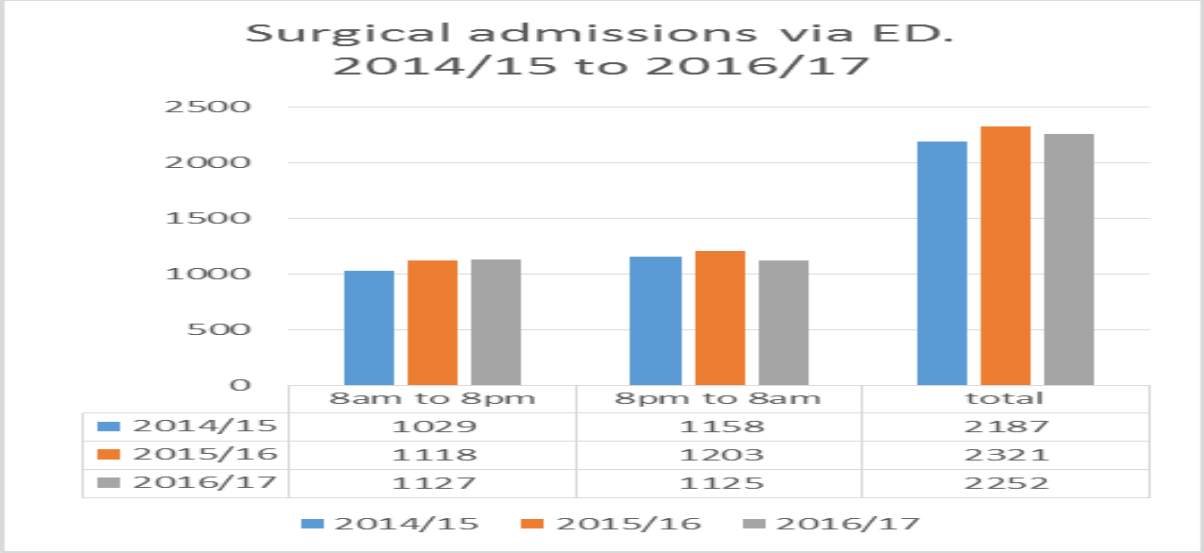


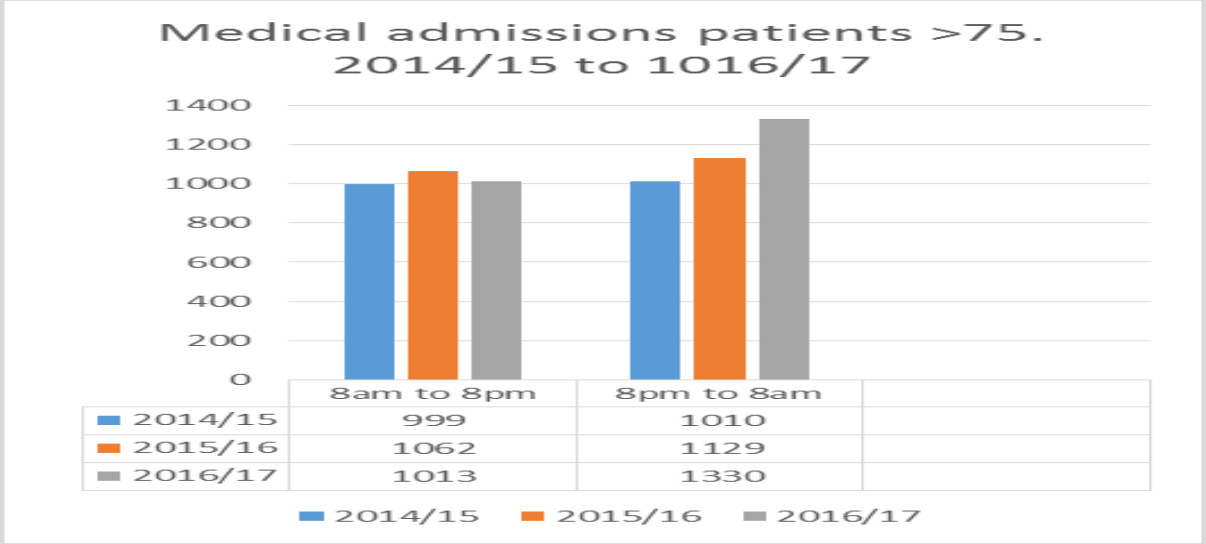
Figure 4-8: Surgical Admissions via ED, 2014/15 – 2016/17



4.5.4 Over 75s

For medical admissions of over 75s, while there has been no change in the over 75s during daytime hours, between 8pm and 8am there has been an increase of 32% in admissions in the three years up to 2016/17.

Figure 4-9: Medical Admissions (over 75 years old) via ED, 2014/15 – 2016/17



4.6 Where Do People Who Attend DHH ED Come From?

Table 4-6 shows that 85% of ED attendees come from Newry & Mourne and Banbridge. 1.2% of ED attendees came from the Republic of Ireland.

"Other" is a mixture of the LGDs not listed in the table (Belfast, Ards etc), GB addresses, non UK/Ireland and no fixed abode

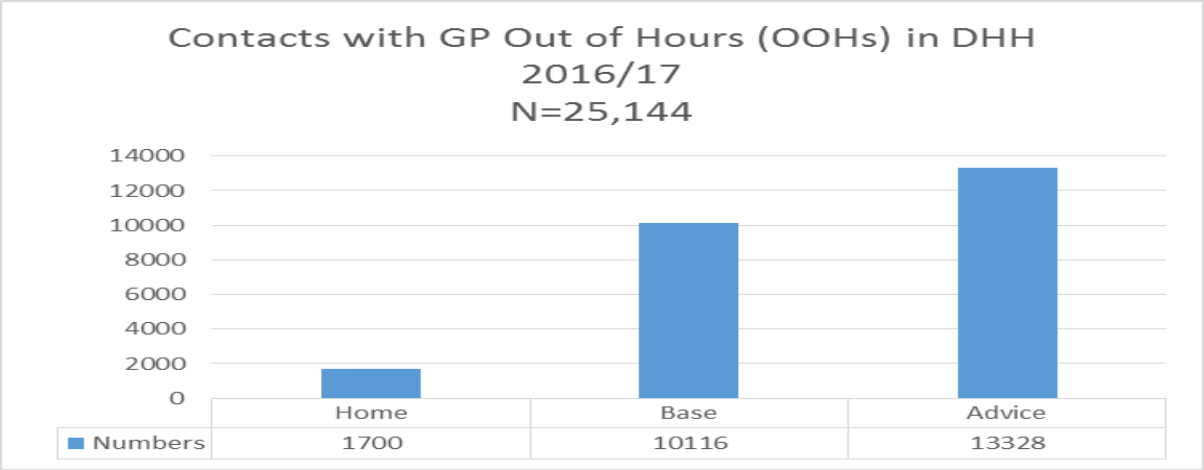
Table 4-6: Attendances by Local Government District 2016

Local Government District	0-16 years	17+ years	Total	% of total
Newry & Mourne	9523	30455	39978	74.6%
Armagh	891	2628	3519	6.6%
Banbridge	1362	4161	5523	10.3%
Craigavon	62	247	309	0.6%
Dungannon	38	145	183	0.3%
Down	421	1740	2161	4%
Republic of Ireland	190	433	623	1.2%
Other	209	1069	1273	2.4%
Total	**12,696**	**40878**	**53575**	

4.7 GP Out of Hours (GP OOH)

The breakdown of outcomes of contact with the GP OOH base in DHH is shown in Figure 4-10.

Figure 4-10: Contacts with GP Out of Hours, 2016/17 (SHSCT data)



The number of occasions the GP OOH base in DHH was closed in 2016/17:

Table 4-7: GP Out of Hours Closure (Daisy Hill Base) 2014/15 - 2016/17 (SHSCT data)

Daisy Hill Base Closures by Day of Week	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
2014-2015	0	2	2	1	0	0	0	5
2015-2016	3	5	4	8	4	6	2	32
2016-2017	12	6	4	9	14	12	3	60
Total	15	13	10	18	18	18	5	97

Whilst telephone advice is available regardless of location within the Southern Trust, base appointments to see a GP cannot always be facilitated in every location due to shortages of GPs. When a base does not have a GP available for a shift, patients are offered an alternative base appointment.

4.7.1 Incentives within SHSCT to attract GPs to work in GPOOH

A range of measures have been put in place by the SHSCT to encourage GPs to work in OOHs. These include:

1. Ongoing recruitment of GPs for salaried sessions as well as recruitment of "As and When" contracts for GPs (Trust indemnity provided).
2. Development of a Local Enhanced Service (LES) revised for 17/18 which has attracted an additional 22 GPs into the service. (Mentorship is available for GP's returning to the service).
3. Provision of an additional cost scheme where GPs who work a number of sessions per quarter receive a lump sum payment.
4. Flexible working arrangements. Start and end of shift times as well as hours to suit individual circumstances.
5. Enhanced rates SMT framework agreed and 2017/18 Trust additional costs scheme implemented.
6. Appointment of 2 part time Medical Managers in additional to Clinical Lead.

4.8 Comparison of In-Patient activity for similar sized hospitals in N Ireland

The throughput per bed and average Length of Stay in DHH compares favourably with similar sized hospitals in Northern Ireland.

Table 4-8: Inpatient Activity in Selected Hospital, 2016/17

	Hospital	Average Available Beds	Day Cases	Inpatients		Throughput	Average Length of Stay
All Programmes of care	Daisy Hill	216	20,267	16,438		76.2	3.9
	Mater Infirmorum	230	6,554	8,801		38.3	8.8*
	Causeway	241	9,013	13,679		56.6	5.0
	South West Acute	226	4,113	14,697		65.0	5.0
	Hospital	**Average Available Beds**	**Day Cases**	**Elective Inpatients**	**Non Elective Inpatients**	**Throughput**	**Average Length of Stay**
General Surgery	Daisy Hill	35	2,753	412	2,364	80.2	3.7
	Mater Infirmorum	20	1,278	641	180	41.1	7.8
	Causeway	39	3,091	638	2,000	68.1	4.4
	South West Acute	33	1,634	517	2,230	83.4	3.9
	Hospital	**Average Available Beds**	**Day Cases**	**Elective Inpatients**	**Non Elective Inpatients**	**Throughput**	**Average Length of Stay**
General Medicine	Daisy Hill	92	851	48	5,604	61.6	5.7
	Mater Infirmorum	38**	56	5	1,556	41.3	6.7
	Causeway	86	17	40	4,642	54.5	6.5
	South West Acute	84	1,250	64	4,693	56.9	6.4
	Hospital	**Average Available Beds**		**Elective Inpatients**	**Non Elective Inpatients**	**Throughput**	**Average Length of Stay**
Paediatrics	Daisy Hill	17		40	2,420	143.5	1.5
	Mater Infirmorum	*		*	*	*	*
	Causeway	12		208	1,490	137.4	0.9
	South West Acute	19		45	1,708	92.9	1.8

Source: DOH https://www.health-ni.gov.uk/publications/hospital-statistics-inpatient-and-day-case-activity-statistics-201617

***** Mater Infirmorum does not have a paediatrics unit, which influences length of stay for all programmes of care

****** Mater Infirmorum and Causeway also have high volumes of other medical inpatient activity categorised as gastroenterology, endocrinology and thoracic medicine
Source DOH: https://www.health-ni.gov.uk/publications/hospital-statistics-inpatient-and-day-case-activity-statistics-201617

4.9 Births

The SHSCT (Craigavon Area Hospital and DHH) had the largest number of births in Northern Ireland in 2016/17 with 5901 births compared to 5887 in BHSCT (Royal Jubilee Maternity hospital and Mater Hospital).

Table 4-9: Births at NI Hospitals, 2016/17.
Source N Ireland Inpatient and Day Case Activity Statistics 2016/17 KP19

Hospital	Births
Royal Jubilee Maternity	5626
Ulster	4194
Craigavon Area	4140
Antrim Area	3017
Altnagelvin	2730
Daisy Hill	1761
South West Acute	1240
Causeway	1022
Mater (stand alone midwifery unit)	261
Lagan Valley (stand alone midwifery unit)	163

4.10 Alternatives to admission- ED Audit August 2017

In August 2017 a retrospective audit of admissions via DHH ED was conducted by a team of multidisciplinary senior staff, including Consultant ED, Medical, Surgical, Paediatric and General Practice clinicians, Senior Managers and Allied Health professionals. All cases admitted via ED over a seven day period from 10th-16th October 2016 inclusive were reviewed. Patient notes were examined with regard to clinical details, reason for admission and suitability for alternative pathways of care. Trends in admissions across days of the week and time of arrival in the ED were also assessed.

Audits using this methodology have also been conducted in each of the five largest EDs in Northern Ireland; whilst there are common themes emerging, it is important that local data, reflecting local need, is used to guide local efforts to improve.

Key findings

Profile of admissions (by day and specialty, age of patient)

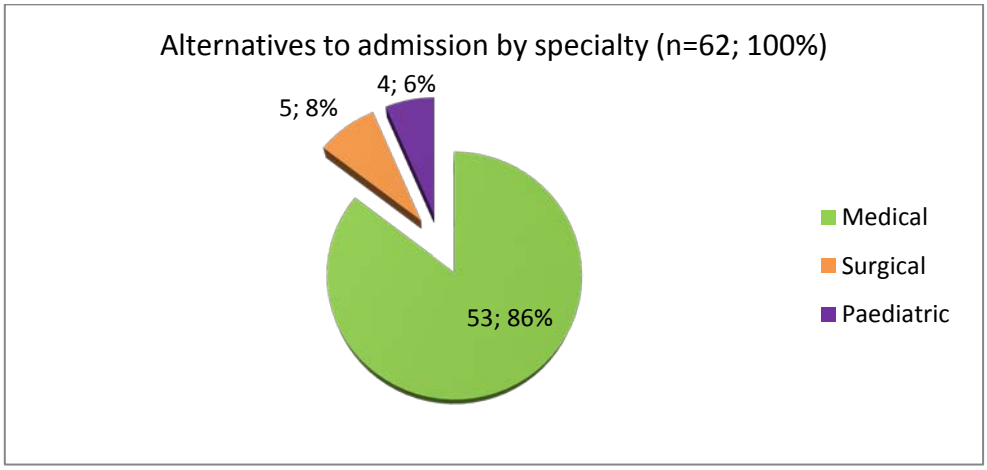
The pattern of admissions in terms of day of the week, specialty and age of patient is consistent with previous findings, indicating that the sample is fairly representative. In summary over the audit period:

- In total there were 210 admissions via ED, equating to an average of 30 admissions per day.
- Monday and Friday were the busiest days with 40 (19%) and 38 (18.1%) admissions respectively.
- The majority of admissions (66.2%, 139) were to medical specialities, 20% (42) to surgical specialities and the remaining 13.8% (29) were paediatric cases.
- Approximately one fifth (19.5%, 41) of patients admitted were aged 61-70 years, with a median age of those admitted of 65 years.
- The distribution of the age of patients admitted, in keeping with patterns observed regionally, showed peaks in those aged under 10yrs (11.9%, 25) and over 60 years old (53.8%, 113), with 28.1% (59) of those admitted aged over 75 years.

Alternatives to admission

In total across all specialities alternatives to admission were identified in 62 cases (29.5% of those admitted). Most of these cases (85.5%, 53) were admitted to a medical specialty. This reflects the fact that the majority of all admissions are to medical specialities and also that within surgery and paediatrics alternative elective and ambulatory pathways are already in place in DHH. Of 42 surgical admissions during the audit period only 5 (11.2%) had an alternative to admission. For the majority of these 60%, (3/5) a surgical ambulatory care model would have been appropriate. Similarly only a minority of paediatric admissions (13.8% 4/29) had a suitable alternative to admission.

Figure 4-11: Alternatives to Admission by Specialty



(Source: DHHPFG ED Admissions Audit Sept 2017)

The greatest scope for development of alternative pathways appears to be within medical specialities (38.1% of total medical admissions, 53/139). Table 4.10 outlines potential alternatives.

Table 4-10: Alternatives to medical admission by volume

Alternative to Admission	Number of patients suitable	Proportion of patients Suitable (%)
Ambulatory Unit (10)/ Clinic Follow Up(3)	13	24.5
Acute Care at Home	12	22.6
Frail Elderly Unit(5)/Assessment unit(2)	7	13.2
Short Stay Ward (4) /Addictions team (2)	6	11.3
Specialist Clinics - Cardiology, Mental Health etc.	4	7.5
Heart Failure Nurse	4	7.5
Neurology Rapid Access Clinic	3	5.7
More available Transport	2	3.8
Better Nursing Home Support	1	1.9
Respiratory Rapid Access Clinic	1	1.9
Total	**53**	**100**

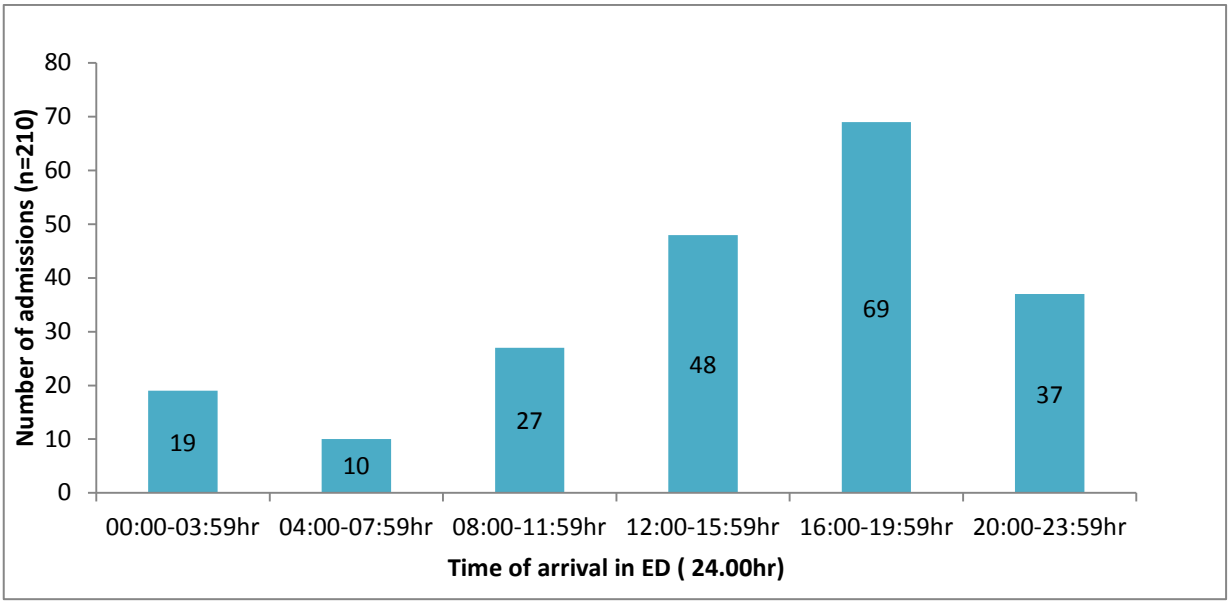
(Source: DHHPFG ED Admissions Audit Sept 2017)

The five alternatives which appear to have the most potential impact are:

- Ambulatory Unit / Clinic Follow Up
- Acute Care at Home
- Frail Elderly Unit/Assessment unit
- Short Stay Ward /Addictions team
- Specialist Clinics - Cardiology, Mental Health etc.

The times at which patients admitted via ED arrive in the department should be taken into account when considering the potential operational hours of alternative pathways. The number of patients arriving in ED and requiring admission increases during day time hours as shown in Figure 4.12. 73.3% (154) of those admitted over the audit period arrived in ED between 12.00 and 24.00hrs, with almost one third (32.8%, 69) arriving in ED between 16.00 and 20.00hrs. This pattern is consistent across the seven days observed.

Figure 4-12: Admissions by Time of Arrival in ED



(Source: DHHPFG ED Admissions Audit Sept 2017)

SHSCT Datasets examining ambulatory potential of non-elective admissions in those aged over 17 years between 1st November 2015 and 31st October 2016 in DHH have shown similar trends in relation to alternatives to admission. Most admissions with a length of stay between 1 and 5 days are to medical specialities, confirming that this

shows the greatest scope for ambulatory care development. To maximise the impact of future ambulatory pathways the clinical conditions which have the highest probability of conversion to ambulatory care and also those for which the largest numbers of patients are admitted should be considered.

4.11 In patient flow audit - September 2017

In August - September 2017 a Senior Nurse Review team from the HSCB completed an acute inpatient review in DHH. The Team audited acute medical and surgical specialty inpatients considering:

- Daily medical profile of each patient
- Acute bed utilisation
- Quality care indicators / associated hospital process
- Simple / complex discharges

This included reviewing all patient related records using the modified Appropriateness Evaluation Protocol (mAEP) audit tool. This validated tool is used nationally and takes account of acute hospital admission and subsequent days of care, considering the patient's condition against criteria in categories of intensity of service, severity of illness, medical service need and nursing / life support need.

Reviews using this methodology are routinely conducted by the HSCB Senior Nurse Review team across hospitals in NI. To inform the work of the DHHPFG, this audit was repeated in DHH in August-September 2017 using an enhanced adult inpatient sample.

The hospital information team produced a Patient Administration System (PAS) list for Thursday 10th August, for all medical, cardiology and surgical inpatients. This gave a total of 159 patients, from which the **team randomly selected 50 patients and audited their pathways from admission to discharge or the last day of the audit**. The audit was period ended on Thursday 7th September (4 weeks from the PAS extraction). This generated **707 days of care**. 1 patient remained an inpatient on the last day of the audit.

Key findings

50 patient pathways were audited, equating to 707 days of care. In summary the main findings showed that:

Patient Profile

- 56% (28) of the patients admitted were aged ≥75 years old, with 24% (12) aged ≥85 years.
- The median age group of those admitted was 75-79 years.
- 86% (43) of patients were admitted from their own home with the majority of these living with others (31) and 12 patients living alone.
- The remaining 14% of patients (7) were admitted from nursing and residential homes.
- 92% of admissions (46 patients) were via the ED with 6% (3 patients) transferred from other health care facilities and 1 patient admitted electively.
- 78% (39) of patients were admitted to medical specialities,(including 1 patient admitted to cardiology and 1 to stroke medicine), with a further 22% (11 patients) admitted to surgical specialities.

Decision to Admit

- 48% (22/46) of patients admitted through ED had evidence of ED Consultant review during the admission process, which is an increase from previous Senior Nurse Team reviews in DHH.
- By 12 noon on post admission day, (i.e. the first day after admission), when assessed for the presence of accepted criteria for acute admission using the mEAP tool 80% of patients (40) warranted continued use of an acute bed. For the remaining 20% (10) there would be scope to consider alternative pathway development (Table 4.11).

Table 4-11: Alternatives to admission (Source: HSCB Senior Nurse Review, Aug-Sept 2017)

Setting	Alternative to admission	Number of Patients suitable (%)
Acute	Ambulatory Pathway	2 (20%)
	Investigation/Diagnostic Pathway	1 (10%)
Community	Acute Care At Home	3 (30%)
	Own Home (with access to usual primary care services)	2 (20%)
	Sub Acute Bed / Intermediate Care Setting	2 (20%)
	Total	**10 (100%)**

- Overall for 45% of bed days audited (321 bed days), when assessed for the presence of accepted day of care criteria using the mEAP tool, patients did not have criteria requiring an acute hospital bed.

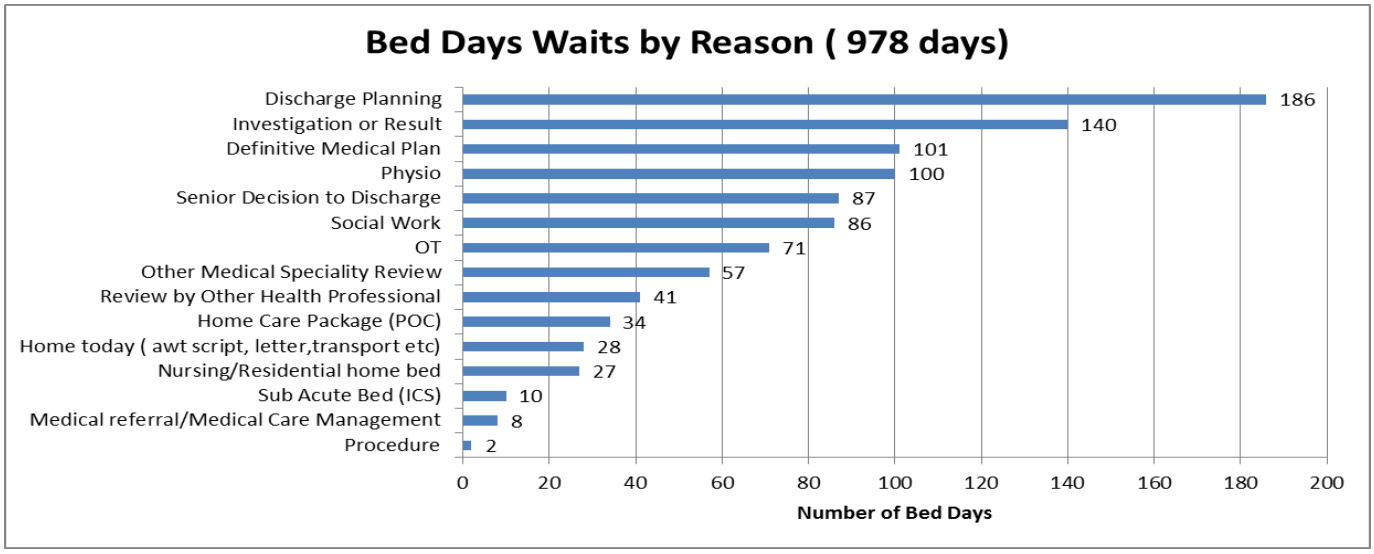
Senior medical review, outcome focused management plans and declaration of being 'Medically Fit' for discharge

- On 51% of bed days audited (361 days) patients had evidence of senior medical review once per day, with evidence of twice daily senior medical review on a further 15% of bed days (107 days). However for 34% (239 days) of bed days examined patients did not have evidence of senior medical review. 49% (118 days) of these bed days occurred at weekends, when less staff are available.
- On 60% of bed days (427 days) audited there was evidence of a senior medical outcomes focused plan
- For 30% of bed days reviewed (214 days), whilst the patient did not have evidence of criteria for continued use of an acute hospital bed, they did not have a record of being declared as 'medically fit' for discharge, which can delay the process of discharge from hospital.
- Also, however for 15% of bed days audited (108 bed days), despite the patient having a record of being declared as medically fit for discharge they remained an inpatient.

Bed Day Waits

- For the 50 patients audited 978 day waits due to hospital processes were identified (figure 4.13). The majority of these delays (65% of the hospital process day waits) can be attributed to actions related to discharge.

Figure 4-13: Bed Day Waits by Reason (Source: HSCB Senior Nurse Review, August-September 2017)



- Waiting on investigations and results was the second commonest cause of delays (figure 4.13). When the reasons for such delays are examined in further detail (table 4.12) they appear to be related to both investigation/procedure delays (45.1%, 64 days), reflecting pressure on certain diagnostic services e.g. MRI, E/MRCP, and also equally to ward based delays (46.5%, 66 days) in requesting certain investigations/procedures (e.g. ECHO, USS) from time of first being mentioned or actioning results from time they became available.

Table 4-12: Investigation and Procedure Day Waits (142 days – 19 patients)

*** A patient may have been waiting for more than one investigation or procedure) (Source: HSCB Senior Nurse Review, August-September 2017)**

Investigation / Procedure	No. of Patients	Ward Based Delay (days)	Investigation / Procedure Based Delay (days)	Other Delay (days)	Total Wait (days)
ECHO	7	43	0	-	43
MRI	4	6	22	-	28
USS Scan	6	8	9	-	17
ERCP/MRCP	3	4	12	-	16
PTC	1	-	-	12	12
CT Angiogram	3	3	5	-	8
CT Scan	4	2	4	-	6
Angiogram	2	-	6	-	6
Bloods	1	-	4	-	4
OGD	1	-	1	-	1
VQ Scan	1	-	1	-	1
Total	**33***	**66**	**64**	**12**	**142**

Areas for Improvement

Whilst this audit has identified many areas of good practice, with sustained improvements on previous findings in some criteria, it also highlights several areas for improvement. These include the need for:

- Senior medical decision making- both at the time of admission and twice daily review as an inpatient.
- Timely declaration of being 'medically fit' for discharge
- Increased access to diagnostics with minimisation of ward based delays in arranging investigations and actioning results
- Active discharge planning

5.0 Right Care in Right Place

5.1 Summary

The best clinical outcomes require skills and expertise in diagnostics and interventional treatments which cannot all be delivered in every hospital. There are a number of key services and clinical interfaces that ensure that patients requiring unscheduled care receive the correct care in the appropriate place. These include:

- *Primary Percutaneous Intervention (PCI)* – patients who have had an ST Elevation Myocardial Infarction where appropriate are taken directly to the Royal Victoria Hospital for primary PCI;
- *Major Trauma* – it is anticipated that there will be 370 cases of major trauma annually in N Ireland;
- *Critical Care* – DHH does not have a critical care unit. Patients needing critical care are transferred to Craigavon Area Hospital (CAH) or the RVH. There is a surgical high dependency unit and in 2015/16 there were plans to strengthen this service with additional consultant intensivist sessions from the CAH team. Financial issues postponed that development;
- *NIAS Treat and Leave Protocols* – following agreed protocols Ambulance personnel may either treat a patient and/or refer them on to another service such as the falls service;
- *Mental Health Services for Adults and Children* which provide in-reach to the acute hospitals as well as supporting people in the community. They include:
- Alcohol and substance misuse liaison,
- Over 65 year old liaison – Memory Liaison and Psychiatry of Old Age,
- Under 65 year old liaison,
- Child and Adolescent Mental Health Services (CAMHS);
- *Community Based Services* which can provide alternatives to hospital admissions and attendance at ED attendances.
    - GP Out of Hours Service
    - Acute Care at Home
    - Palliative Care Team
    - Heart Failure Service
    - Respiratory Team
    - Diabetes
    - Community stroke teams
    - Intermediate care

- Dementia teams

- *Hospital based paediatric ambulatory care services* – provide an alternative to hospital admissions for GPs and assess, investigate and observe an acutely ill child for a number of hours.
- *Community services and nursing homes,* which although their main roles are not to deliver unscheduled care, need to work closely with the hospital to allow prompt discharge of patients, thus ensuring there will be capacity within DHH to accept new patients.

5.2 Primary PCI

Patients from SHSCT area diagnosed with having a STEMI are taken directly to the Royal Victoria Hospital (RVH) for primary percutaneous intervention (PCI) to re-open the blocked artery. The service operates 24/7 hours a week and 365 days a year. NIAS personnel provide a pre-alert to the Royal along with transmission of a 12-lead ECG and clinical details.

5.3 Major Trauma

The term 'major trauma' describes those injuries which may cause death or severe disability. NI data has only recently been started to be collected so accurate incidence is not yet available, however previous estimates suggest at least 370 cases of major trauma per year. Currently, other than in Greater Belfast, all cases are taken to the nearest level 1 Emergency Department (including DHH). There is evidence from Great Britain and across the world to suggest that the implementation of regional trauma systems result in improvements in the standard of care, with a reduction in mortality of 25%. The aim is to get the right patient to the right hospital, which can provide definitive care, as quickly as possible.

The National Institute for Health and Care Excellence (NICE) has issued guidance recommending that major trauma patients located within a 60 minute drivetime of a

Major Trauma Centre (MTC) should be taken there directly, bypassing other EDs other than in certain specific clinical circumstances. This system also requires that following treatment, if patients no longer need MTC skills, they should be discharged promptly to their local hospital.

The Royal Victoria Hospital (RVH) and the Royal Belfast Hospital for Sick Children (RBHSC) are designated as Northern Ireland's Major Trauma Centre given their unique combination of specialties in a NI setting. A Regional Trauma Network has recently been established to develop the clinical protocols to be used by NIAS to determine which patients should be taken directly from the scene of injury to the MTC. The timeframe for implementation of these bypass protocols is yet to be agreed, but it is likely to take place during 2018. It follows that DHH, as with other level 1 EDs in NI, should in due course receive fewer major trauma cases given that some of its catchment area is within 60 minutes of the RVH. Although the number of such cases is small, this will help to reduce the intensity of workload for DHH ED staff as well as providing the optimum outcome for those patients.

In tandem, a Helicopter Emergency Ambulance Service (HEMS) has been established in NI. This service commenced in July 2017 and operates from 7am to 7pm 365 days a year. This will work as part of the integrated trauma system, sharing a joint trauma network and HEMS clinical advisory group with representation from all Trusts. This will provide a skilled doctor and paramedic team on site and improve access to definitive care for patients from rural areas.

5.4 NIAS Appropriate Care Pathways

As part of the Transforming Your Care strategy, NIAS was tasked with introducing a range of Appropriate Care Pathways (ACPs) which would reduce the number of patients conveyed to the Emergency Department. This work began in April 2014 and to date there are 12 ACPs available in the Southern Health and Social Care Trust (SHSCT) catchment area. Using ACPs can result in patients being treated at home and referred to another Health Care Professional (HCP) or being transported to a destination other than the ED e.g. Minor Injury Unit (MIU).

There are 12 pathways currently available in the SHSCT area. These are:

- Acute Care at Home (frail / elderly)
- Cardiac
- Community Nursing
- Epilepsy
- Respiratory
- Diabetes
- Minor Injuries
- Falls
- Neck of Femur
- Palliative Care
- Safeguarding
- Heart Failure

The activity levels, where available are shown in Table 5-1. Across the region NIAS has a non-conveyance rate of 25% as a result of new pathways, also referring patients to their own GP and resolving emergency calls on the scene.

Table 5-1: NIAS Appropriate Care Pathways SHSCT. April 2017 to July 2017

Pathway	SHSCT	Regional
Acute Care at Home (frail / elderly)	16	260
Cardiac	Not available	142
Community Nursing	Not available	40
Epilepsy	Not available	68
Respiratory	Not available	28
Diabetes	47	263
Minor Injuries	11	77
Falls	113	535
Neck of Femur	Not available	Not available
Palliative Care	Not available	14
Safeguarding	Not available	96
Heart Failure	Not available	0

It is estimated NIAS clinicians across NI have also referred 695 patients to their own GP and resolved 2242 emergency calls on scene without the need for a referral during the same time period.

5.5 Delayed Discharges

Community services to facilitate hospital discharges of older people are critical to the efficient running of a hospital especially ED. Delays in discharges will result in delays in patients being admitted to a hospital bed and result in patients waiting in ED. A snapshot of patients delayed in hospital was obtained from PMSI for the time period 11th July to the 7th August 2017 are shown in Figure 5-1 and reasons for the delays in Table 5-2. These patients were all residents of the Southern LCG.

Figure 5-1: Delayed Discharges in DHH 11/07/17 to 07/08/17

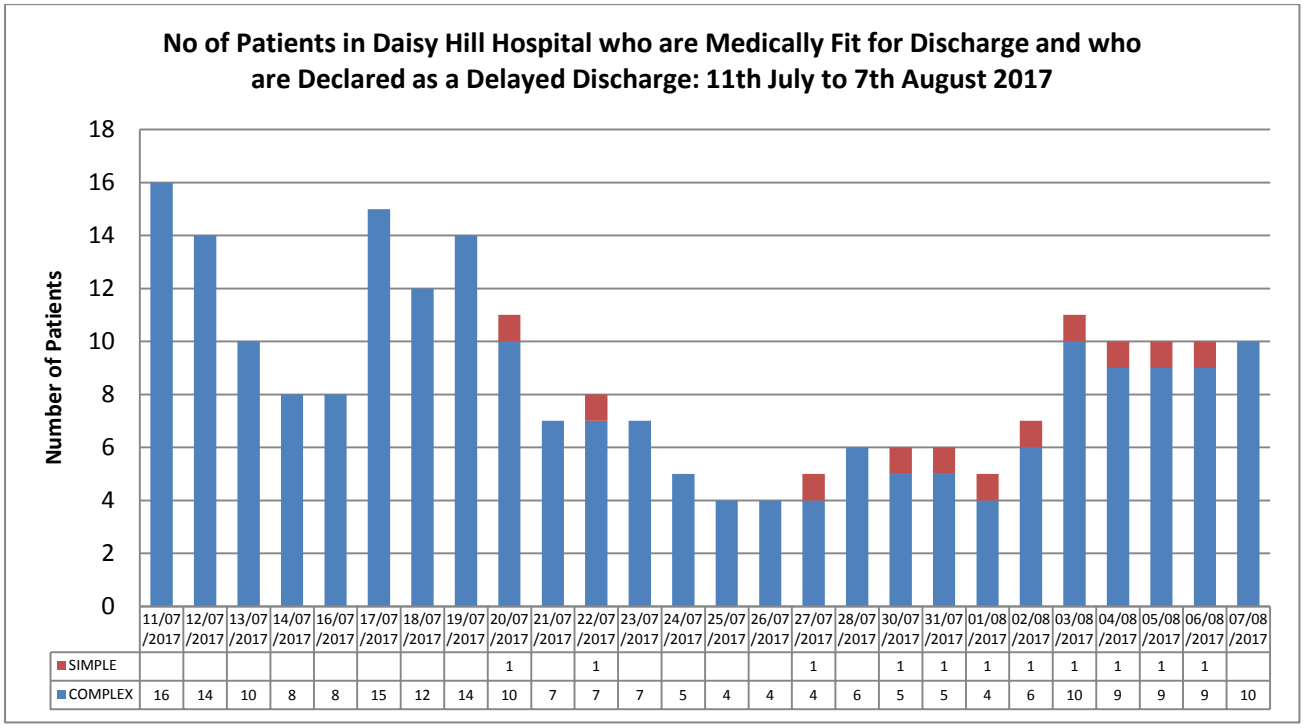


Table 5-2: Reasons for Delayed Discharges in DHH on 7th August 2017

- For the **10** complex delays at midnight on the 7th August the reasons for the delays were recorded as:

Reason	Complex delays > 48 hrs	Complex delays < 48 hrs
Care Manager & Client/Relative working on Care Plan	5	2
No Capacity in any appropriate Domiciliary provider	1	1
No Capacity in any appropriate Nursing Home provider	0	1

5.6 Mental Health

Adult Services

Alcohol and Substance Misuse Liaison

This team works in the acute general hospital setting, including ED, with strong links to the Community Addiction Services. They are responsible for the assessment of patients with harmful and hazardous substance abuse issues. They provide key clinical advice and guidance to the patients including screening, short-term interventions such as addictions advice and education and referral to follow up services including community addictions services.

Table 5-3 shows the contribution of Drug and Alcohol problems to multiple ED attendances. Almost a quarter of patients who attended more than 6 times in a 12 month period had drug +/or alcohol problems

Table 5-3: Drug and Alcohol attendances Daisy Hill Hospital Emergency Department 2016/17

Drug and Alcohol attendances in ED

1-2 ED attendances	478/31,320	(1.5%)
3-6 ED attendances	189 / 3346 patients	(6%)
>6 ED attendances	55/232 patients	(24%)

Over 65 Liaison

Patients aged over 65 within the acute wards are served by two teams.

Memory Liaison

Patients with memory problems are seen by the memory liaison nurses. Through comprehensive mental health and needs assessments they aim to identify patients with dementia and delirium and assist the multidisciplinary team in their management and discharge.

Psychiatry of Old Age (POA)

Patients with mental health issues over the age of 65 years are seen by the Psychiatry of Old Age team. The group of patients referred to this service may include self-harm, medically unexplained symptoms, psychiatric symptoms caused by physical illness, mental capacity.

Under 65 year old Liaison

All ED and acute medical ward referrals presenting with self-harm and mental health problems in the 18 to 65 age group are seen by the Core Liaison team.

In addition this team provides input for working age adults to all wards in the hospitals for a range of presentations. This includes referrals of patients with known mental health diagnoses and patients with new onset symptoms. They also see patients with more complex needs – i.e. ICU referrals, medically unexplained symptoms and women in the perinatal period.

Out of Hours Provision

After 5pm cover is provided by the SHO grade doctor who is scheduled for Liaison cover 5pm-9pm weekdays and assists the Liaison Practitioner 9am-9pm weekends and bank holidays. Overnight cover is provided by the Bluestone Night Coordinator and Home Treatment/ Crisis response team.

Children's Mental Health Services

The mental health needs of children and adolescents are managed by the Child and Adolescent Mental Health Service (CAMHS). Normally children and young people attending Emergency Departments following deliberate self-harm or mental health presentations are admitted for a short period to an appropriate ward suitable to the needs of children and young people. Where there is no medical or surgical reason for the child or young person to be admitted and there is a responsible adult (parent/relative/carer) involved a hospital Senior Doctor (Staff Grade or above) may consider discharge to the care of the responsible adult (parent/relative/carer). A referral to CAMHS will be agreed prior to discharge and CAMHS will follow up on referral next day. Any child or young person presenting after 5pm and referred to

CAMHS will be assessed the next day. A CAMHS practitioner is also on duty Saturday, Sunday and Bank Holidays.

5.7 Community Based Services

There are a range of Community based services focused on maintaining and supporting people to live independently in the community. A brief summary of each service is provided below with further detail in **Appendix 4.**

GP Out of Hours

The service provides a comprehensive, safe and efficient Urgent Primary Care Out of Hours Service to the Northern Ireland population, the non-resident transient population who are entitled to General Medical Services (GMS) for primary care urgent conditions that cannot wait, until the patient's own GP surgery is next open and also to visiting patients exercising rights in cross-border healthcare under Directive 2011/24/EU.

Acute Care at Home

Acute Care at Home is a dedicated Consultant Geriatrician led multidisciplinary team with a primary focus on maintaining older people at home in the event of an acute illness or unexpected deterioration in health. The service provides triage, assessment, diagnosis and treatment as an alternative to in-patient care specifically to those at risk of or potentially requiring admission to hospital, i.e. in the absence of such care, they would require inpatient treatment. The service was introduced into Newry City in March 2017, starting with nursing home residents with planned expansion over the next 6 to 12 months. Table 5-4 shows the interventions offered by the Acute Care at Home service operating in the SHSCT in 2016/17.

Table 5-4: Interventions offered by the Acute Care at Home service in SHSCT in 2016/17

Intervention	# of Referrals
Analgesia	19
Antibiotics	70
Blood Trans	1
Daily Weights	24
Diag CT	12
Diag MRI	1
Diag Ultrasound	9
Diag Xray	22
Mobile ECG	93
IV Antibiotics	314
IV Diuretics	40
IV Fluids	17
Lab Test	476
Nebulisers	41
Oxygen Pres	23
PoC Abg	3
Subcuts Fluids	152
Syringe Driver	8
Therapy Intervention	175

HSCB Audit of Acute Care at Home

In June 2016 the HSCB Senior Nurse Review team completed an audit of the Acute Care at Home Service in SHSCT. 23 patient journeys from admission to discharge, equating to 133 days of care, were reviewed. The audit sample was generated by the trust. The Senior Nurse Review team examined all patient specific written notation and computer records.

Key findings

Patient profile

- Average age of patients using the service was 82 years old
- Average length of stay was 5.7 days (ranging from 1 to 12 days)

Responsiveness

- 41% of patients were triaged within 15mins of referral to the service with all patients being triaged within 45mins

- 71% (15patients) had a medical review within 1hour of acceptance, of these 43% (9 patients) were reviewed within 30 mins.

Appropriateness

- 65% of patients on post admission day were found to meet the modified Appropriateness Evaluation Protocol (mAEP) audit tool criteria for an acute hospital bed, 74% met mAEP for Acute Care at Home
- Audit of all 133 days of care showed that for 61% of days there was clear evidence for the on-going need for an acute hospital bed, for 70% of days there was clear evidence of the ongoing need for Acute Care at Home (based on mAEP criteria)

Senior medical review and management plan

- There was a face to face senior medical review on 60% (80) of the days reviewed, this includes weekends.
- At the time of the audit weekend medical cover was not commissioned, therefore if Saturdays and Sundays are excluded this would equate to senior medical review on 80% of days.
- An Outcome Focused Management Plan was clearly outlined on 63% of days, with no evidence of management plan on 35 days (29 of which were over a weekend).

Outcomes

- Only 2 (9%) patients required a new or increased package of care post discharge from Acute care at home

Overall conclusions of the audit team:

- The Acute care at Home service is managing patients with acute complex needs in the community comparable to patients in the acute setting.
- Rapid response time, including interventions and delivery of equipment
- It was evident care was patient and family centred
- No patient required Out of Hours interventions during the audit period
- Antibiotics were administered for shorter durations than in acute hospitals

- The vast majority of patients did not require additional social care support on discharge
- Improved shared care/confidence with nursing homes

Service developments

At the time of the HSCB audit the service did not have medical cover in place over weekends. Medical cover is now in place for 5 hours on a Saturday, Sunday and Bank Holidays which ensures that those patients most at need receive a review of their management plan over the weekend. Also, the service has introduced nurse led discharge for patients following the recommendations of the audit team.

Palliative Care Team

The specialist palliative care team advise on and support the management of complex symptom for patients and care for patients at end of life with a progressive or non-curative condition. The team may see patients in their own homes, clinic settings, non-acute settings and other community settings such as care homes.

Heart Failure Service

The Heart Failure Service is a dedicated community based Specialist Nurse Led service for adults who have been diagnosed by echocardiogram with left ventricular dysfunction, with an estimated ejection fraction of <40%. The Specialist Heart Failure Nurses collaborate closely with primary, community and secondary healthcare professionals providing a multidisciplinary approach to the management of these patients to reduce mortality, unnecessary hospital admissions and ED attendances and improve quality of life.

Respiratory Team

The respiratory team is a multidisciplinary community based team which provides an enhanced service for the early assessment of patients with a diagnosis of COPD, prevention of hospital admission by offering home based treatment of exacerbation, enhanced self-management and long term disease management through the

provision of individualised self-management programmes and pulmonary rehabilitation (home and class based), early facilitated discharge for patients presenting to SHSCT Hospitals and ongoing care at home. The team are also responsible for the delivery of the Home Oxygen Assessment and Review service.

Paediatric Ambulatory Care Service

A paediatric ambulatory service has been in place in DHH since 1997. Initially medically led and now nurse led it allows for children to be assessed, investigated and observed during the opening hours of the service avoiding hospital admissions. Activity information for this service is included in ED activity in DHH.

In 2016/17 there were 1090 non elective and 21 planned attendances in this service and between April and July 2017 (4 months) there were 323 non elective attendances and 53 planned attendances. Over two thirds (67%) of non elective referrals come from general practice and 29% from ED.

6.0 Accessibility of Services

6.1 Summary

- The timing of the start of appropriate treatment rather than arrival at hospital affects outcomes. To this end, there has to be a balance between access to ED services and overall quality of care. Direct access to the right staff and services can offset or overcome any increased risk associated with additional travel time.
- The report identifies the challenge which would be presented in regards to access times for patients should a 24/7 type 1 ED service not be available in DHH. This would increase travel time to access services for some individuals in the population.
- The number of people in Northern Ireland living within a 1 hour drivetime to a Type 1 ED, based on GP registered population, would reduce from 99.6% to 97.5%.
- It should be noted that there is no definitive standard which indicates an appropriate drivetime to an ED.

Modes of transport

The Newry and Mourne area is primarily rural in nature and there is a heavy dependence on road transport. In 2015 there were 506.1 licensed cars per 1,000 population in Newry, Mourne and Down LGD compared to 497.1 for NI as a whole.

The Department of Infrastructure has not indicated nor approved any plans for major road infrastructure schemes that are likely to impact on travel times.

6.2 Journey Times to Emergency Departments

Tables 6-1 and 6-2 and Figures 6-1 and 6-2 provide drivetime analysis for the population of Northern Ireland as a whole in relation to Emergency Department access in both tabular and map format. The analysis has been carried out using

MapInfo, a geographical information system (GIS) software package used for mapping and location analysis. Patient postcode data (as at January 2016) was obtained from the HSC Business Services Organisation (BSO) which manages registration of all patients registered with a GP in NI. The travel time is an average over 24 hours, using a range of vehicles. An actual journey during peak time could take longer, while one during the night could take less time. A blue light ambulance should achieve a faster travel time than a private vehicle.

Two scenarios are demonstrated:

1. Travel time based on the current configuration of type 1 Emergency Departments (EDs), which are those providing 24/7 consultant-led care. These are the Mater, Royal Victoria (including Children's), Antrim, Causeway, Ulster, Craigavon, Daisy Hill, Altnagelvin and South West Acute hospitals
2. Travel time in the event that there was not a 24/7 type 1 ED service at DHH.

Table 6-1: Drivetime Analysis for NI Population – Current Type 1 ED Configuration

		Drivetime population coverage (minutes)				
		<30	**30-45**	**45-60**	**60-75**	**75-90**
Type 1 EDs *Mater, Royal Victoria (inc. Children's), Antrim, Causeway, Ulster, Craigavon,* ***Daisy Hill****, Altnagelvin and South West Acute*	No.	1,499,957	1,783,282	1,915,897	1,922,974	1,922,974
	%	78.0%	92.7%	99.6%	100.0%	100.0%

Table 6-2: Drivetime Analysis for NI Population – Daisy Hill Hospital Excluded

		Drivetime population coverage (minutes)				
		<30	**30-45**	**45-60**	**60-75**	**75-90**
EDs *Mater, Royal Victoria (inc. Children's), Antrim, Causeway, Ulster, Craigavon, Altnagelvin and South West Acute*	No.	1,390,843	1,691,578	1,875,839	1,907,181	1,922,974
	%	72.3%	88.0%	97.5%	99.2%	100.0%

Figure 6-1: Drivetime Analysis for Northern Ireland – Current Level 1 Emergency Department Configuration

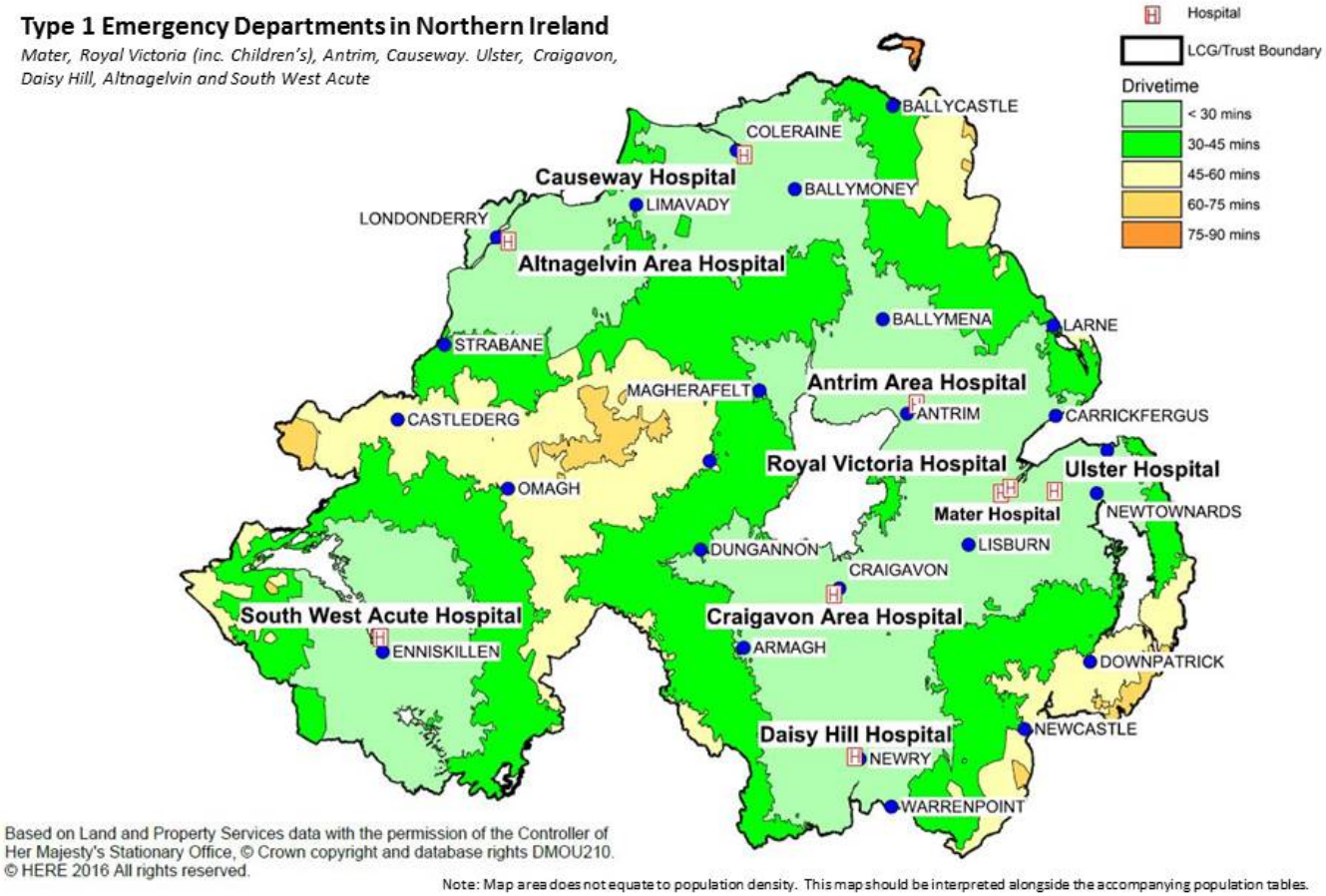
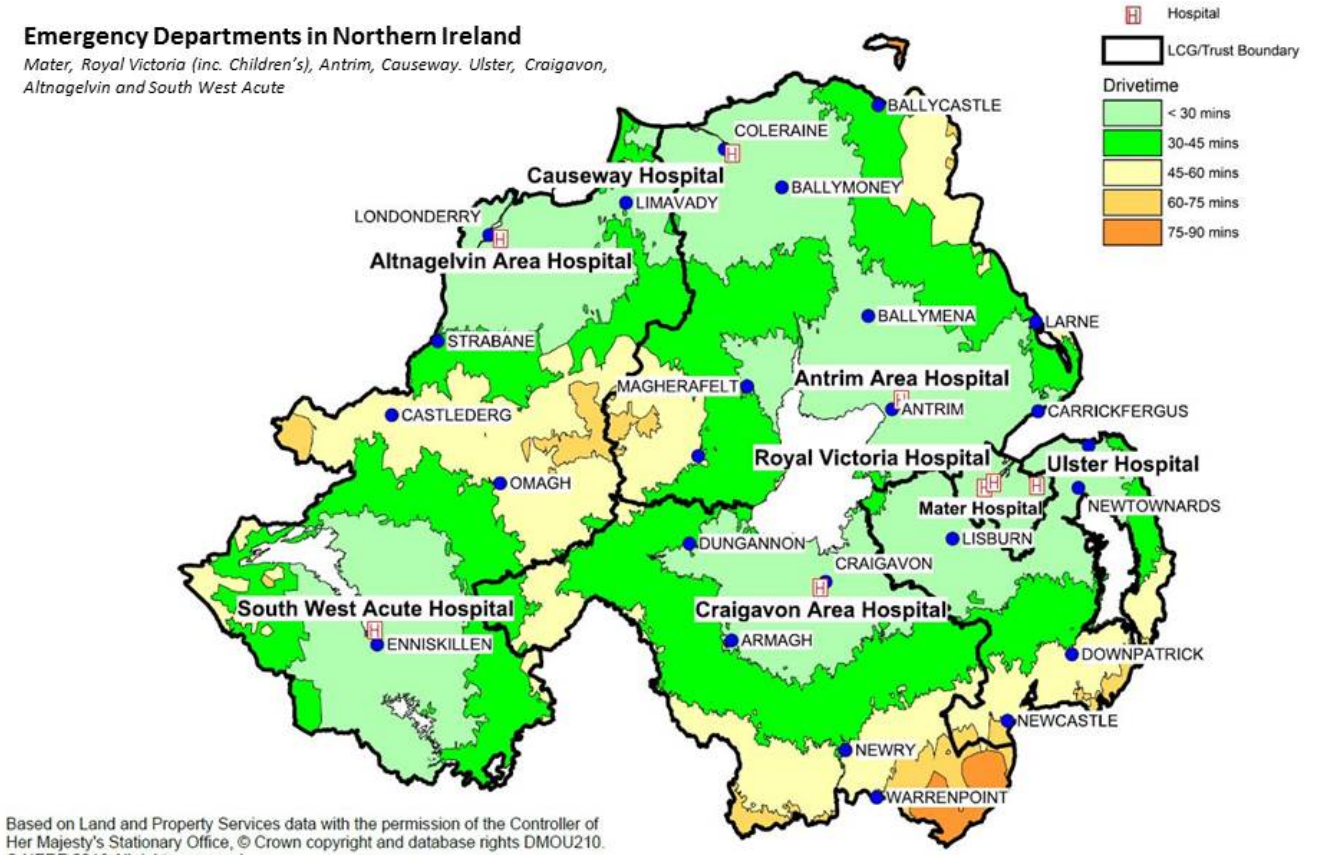


Figure 6-2: Drivetime Analysis for Northern Ireland – Daisy Hill Hospital Emergency Department Excluded



Note: Map area does not equate to population density. This map should be interpreted alongside the accompanying population tables.

The standardised approach which has been used allows an objective comparison between scenarios. The map at 6-1 above shows that 99.6% of the population live within a 60 minute travel time of an ED.

The map at 6-2 shows the position in the event that DHH ED was not operational 24/7. In this case, the number of people in Northern Ireland living within a 1 hour drivetime to a Type 1 ED, based on GP registered population, would reduce from 99.6% to 97.5%. It should be noted that there is no definitive standard which indicates an appropriate drivetime to an ED.

A Type 1 ED treating in excess of 50,000 patients per year would be expected to have a fully staffed 3 Tier rota of junior, middle and senior grade doctors and appropriate nursing support over each 24 hour period.

It is important to recognise that there are many conflicting factors when considering the potential impact of travel distance to hospital on clinical outcomes. The best clinical outcomes require skills and expertise in diagnostics and interventional treatments which cannot all be delivered in every hospital. The timing of the start of appropriate treatment rather than arrival at hospital affects outcomes. To this end, there has to be a balance between access to ED services and overall quality of care. The increasing skills of NIAS staff in assessing patients at the scene, linked with regional protocols for specific conditions, and direct access to the right staff and services at hospital can offset or overcome any increased risk associated with additional travel time. For these conditions NIAS already bypasses hospitals with EDs in order to get the patient to the service which can give them specialist care. For example, regardless of where in NI a patient has a STEMI (ST Elevation Myocardial Infarction) heart attack, ambulances will bypass all other hospitals to get to Altnagelvin or the RVH, whichever is closest, where the patient is taken not to ED but straight to the cardiac cath lab where the blocked artery can be reopened. Travel times can be well in excess of one hour, but NI outcomes for STEMI heart attack are among the best in the UK.

7.0 An Overview of Models of Urgent and Emergency Care and their Effectiveness

7.1 Summary

A rapid review approach of examining existing reviews of models of urgent and emergency care was undertaken on behalf of the needs assessment group. In the face of continuously rising demands, urgent and emergency health care services around the globe are adopting alternative models of care in order to remain safe and sustainable.

The wide scope of this review and numerous models outlined reflects the reality of the complexity of urgent and emergency care systems.

Although the evidence base on the effectiveness of models of urgent care is improving it remains in development, with gaps in particular in relation to assessment of economic impacts and cost effectiveness. Whilst strong positive evidence has emerged for some models including 'ambulance/paramedic triage to the community, condition-specific rehabilitation, additional clinical support to people in nursing and care homes, improved end-of-life care in the community, remote monitoring of people with certain long-term conditions and support for self-care' [1], it is also recognised that absence of evidence may not necessarily equate to negative outcomes in other interventions, particularly in small scale changes. However this reinforces the need for robust evaluations, of newer models of care going forward, and should not be underestimated.

7.2 An Overview of Models of Urgent and Emergency Care and their Effectiveness

As part of the needs assessment, a rapid review approach of examining existing reviews of models of urgent and emergency care was undertaken. This incorporated a comprehensive electronic search of the HONNI databases (Cochrane, Medline, Cinahl, Health Management Information Consortium, King's Fund, Trip) NHS Evidence and Google Scholar search engines for review articles on models of urgent and emergency care and their effectiveness. Publications were limited to those published in English between 2007 – August 2017 and include academic literature, grey literature, guidance and policy documents. A rapid review methodology has been used to provide a narrative summary which is included as **Appendix 5**.

In the face of continuously rising demands, urgent and emergency health care services around the globe are adopting alternative models of care in order to remain safe and sustainable. Northern Ireland, England, Scotland and Wales have all produced guidance on improving patient flow in hospital and the community in recent years.

The 2014 guidance issued by the Department of Health in Northern Ireland produced guidance on improving patient flow in health and social care services[6]. The term flow *'describes the progressive movement of people, equipment and information through a sequence of processes. In healthcare, the term denotes the flow of patients between staff, departments and organisations along a pathway of care*'[7].

[6] DHSSPSNI Improving patient flow in HSC Services DHSSPSNI Belfast; 2014 accessed at: https://www.health-ni.gov.uk/sites/default/files/publications/health/uctg-improving-patient-flow.pdf

[7] NHS England *Transforming urgent and emergency care services in England. Safer, faster, better: good practice in delivering urgent and emergency care. A guide for local health and social care communities* London 2015 - accessed at http://www.england.nhs.uk/wp-content/uploads/2015/06/trans-uec.pdf

The evidence base on the importance of patient flow is well established and the consequences of poor flow radiate across the entire healthcare system including urgent and emergency care[8.] These negative impacts can include '*EDs become crowded, stressful and unsafe, patients are admitted as 'outliers' to wards that are not best suited to manage their care , clinical outcomes are measurably worse, particularly for frail older people, staff are overstretched and patients and carers time is wasted*.'[9] Therefore the Department of Health guidance[10] provided a '*summation of what's worked elsewhere what's currently delaying patients…..based on direct feedback from ward staff and what's therefore likely to have the highest impact in terms of improving patient flow'.* It includes a flow chart summary of the suggested overview of ways to improve patient flow across the system in primary care, ED and secondary care, (see **Appendix 5**). It also outlines '*the immediate and highest impact actions for Trusts to improve inpatient flow and reduce ED overcrowding'* as:

1. **Radiology-** provide full radiology services including CT, MRI & ultrasound scans 7-days a week at a capacity that enables same day/next morning radiological Investigation and reporting for all radiological work
2. Support **consultant twice daily decision-making** for all inpatients– enable a consultant to review all inpatients twice a day.
3. **Ward rounds–see potential discharges first** to allow the discharge process to start as early in the day as possible
4. **Streamline the process from decision to discharge** (or anticipate discharge) to the time when the patient goes home.
5. Establish a **dedicated minors stream in ED–**establish a dedicated minors stream (category 4&5) 7-days a week, at least 9am-9pm ,or longer if demand exists

[8] NHS Improvement Focus on improving patient flow- priorities for acute hospitals NHS Improvement: London: 2017 accessed at https://improvement.nhs.uk/uploads/documents/Patient_Flow_Guidance_2017___13_July_2017.pdf

[9] NHS Improvement Focus on improving patient flow- priorities for acute hospitals NHS Improvement: London: 2017 accessed at https://improvement.nhs.uk/uploads/documents/Patient_Flow_Guidance_2017___13_July_2017.pdf

[10] DHSSPSNI Improving patient flow in HSC Services DHSSPSNI Belfast; 2014 accessed at: https://www.health-ni.gov.uk/sites/default/files/publications/health/uctg-improving-patient-flow.pdf

Many of the themes and practical suggestions from this paper are mirrored in a 2017 NHS Improvement *Good Practice Guide: Focus on improving patient flow*

Relevant regional and UK policy and guidance, which highlight strategic directions and core principles for unscheduled care and improving patient flow, are outlined. The results and conclusions of six recent comprehensive evidence reviews examining models of urgent and/or emergency care, published by academic sources within the UK from 2014-17, are summarised. Three of these reviews have focused specifically on initiatives in older people.

Specific models of care of local interest including paramedic protocols, minor injury units, acute care at home, acute medical units and telemedicine are also examined.

The wide scope of this review and numerous models outlined reflects the reality of the complexity of urgent and emergency care systems. Many of the reviews included have categorised the searches and initiatives examined into multiple themed areas of work. Inconsistency in terminology, with a variety of names used for similar models, adds further complication.

Although the evidence base on the effectiveness of models of urgent care is improving it remains in development, with gaps in particular in relation to assessment of economic impacts and cost effectiveness. Whilst strong positive evidence has emerged for some models including ‘ambulance/paramedic triage to the community, condition-specific rehabilitation, additional clinical support to people in nursing and care homes, improved end-of-life care in the community, remote monitoring of people with certain long-term conditions and support for self-care’, it is also recognised that absence of evidence may not necessarily equate to negative outcomes in other interventions, particularly in small scale changes. However this reinforces the need for robust evaluations, of newer models of care going forward, and should not be underestimated.

The importance of the impact of organisational, individual and behavioural factors on local implementation, use of care, and success are also highlighted. The Nuffield Trust in 2017 [1] examined moving care out of hospital reported that ‘*where schemes*

have been most successful they have: targeted particular patient populations (such as those in nursing homes or the end of life); improved access to specialist expertise in the community; provided active support to patients including continuity of care; appropriately supported and trained staff; and addressed a gap in services rather than duplicating existing work'. However they also urge caution regarding the real need for investment when '*shifting the balance of care* ' reiterating that many of the models examined ' *place additional responsibilities upon primary and community care, at a time when they are struggling with rising vacancies in both medical and nursing staff, and an increasing number of GP practices are closing. Addressing these issues is a necessary precursor to success*.'[1]They also advised that '*successfully changing patterns of service use requires access to appropriate and timely primary care, as well as high levels of trust in these alternative services. Trends in use of A&E, and the significant increase in attendances in 2003 following the introduction of minor injury and specialist services, highlight an important consequence of the initiatives described in this section (*section 2 redesigning urgent and emergency care pathways*): **supply-induced demand**. Many of the initiatives we looked at increased contacts with the NHS without equivalent reductions in the use of A&E. **In some cases, this has increased overall costs**'.* [1]

Southern Health and Social Care Trust

Quality Care - for you, with you

DAISY HILL HOSPITAL
Pathfinder Group

Personal and Public Involvement (PPI) Involving you, improving care

Report of the Needs Assessment Group

APPENDICES

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APPENDIX 1

Membership of the Needs Assessment Group

Daisy Hill Hospital Pathfinder Project
Needs Assessment Group

Dr Brid Farrell, Assistant Director of Service Development, Safety and Quality, Public Health Agency (Chair), Public Health Agency
Dr Arnie McDowell, GP Federation and LMC
Dr Laurence Dorman GP Federation
Dr Richard Wright, Medical Director, SHSCT
Mr David Gilpin, Consultant Surgeon, SHSCT
Ms Charlene Stoops, AD of Corporate Planning, SHSCT, (Project Manager for DHH Pathfinder Project)
Dr Alan Evans, GP Out of Hours/AMD Primary Care, SHSCT
Ms Cathrine Reid, Head of Service, GP Out of Hours, SHSCT
Dr Bronagh McGleenon, Consultant Geriatrician, SHSCT
Mrs Anne McVey, AD Medicine & Unscheduled Care, SHSCT
Dr Gareth Hampton, Clinical Director ED, SHSCT
Ms Catherine Farrell, Unison, Staffside Rep, SHSCT
Mrs Rosin Toner, Assistant Director of Enhanced Divison, SHSCT
Ms Cathie McIlroy, Head of AHPs, SHSCT
Dr Diane Corrigan, Consultant in Public Health Medicine, Public Health Agency
Dr Rachel Doherty, ADEPT Clinical Leadership Fellow, Public Health Agency
Mrs Alison Patterson, Southern Local Commissioning Group
Mr Brian McNeill, Northern Ireland Ambulance Service
Mr Brian O'Hagan, PPI Panel
Mr Peter Donnelly, Chair of PPI Panel
Mr Stephen McDowell, PMSI, Health & Social Care Board
Mr Martin Doyle, Acute Information, Health & Social Care Board
Ms Fiona Dunbar, Community Information, Health & Social Care Board

APPENDIX 2

Northern Ireland Neighbourhood Information Service (NINIS)

Population Profile

Newry, Mourne & Down Local Governement District

Please note this is a composite report, with data being taken from various reports/pages. Figure, table and page numbers therefore do not follow a sequential pattern.

Area Profile Report

Created Thursday, July 13, 2017 10:21 AM

Population Estimates for Newry, Mourne And Down Local Government District

The estimated population of **Newry, Mourne And Down** Local Government District at 30 June 2015 was **176,369**, of which **87,365 (49.5%)** were male and **89,004 (50.5%)** were female.

This was made up of:

- **39,734** children aged 0-15 years;
- **54,841** people aged 16-39 years;
- **55,933** people aged 40-64 years; and
- **25,861** people 65 years and older.

Between 2005 and 2015 the population of **Newry, Mourne And Down** Local Government District increased by **15,916** people or **9.9%**.

Table 1: Population Estimates by broad age bands, 2015

	Newry, Mourne And Down LGD	Northern Ireland
Total Population (2015)	176,369	1,851,621
Children (0-15 years)	39,734	385,200
Young Working Age (16-39 years)	54,841	583,116
Older Working Age (40-64 years)	55,933	591,481
Older (65+ years)	25,861	291,824
Population Change % (2005-2015)	**9.9%**	**7.2%**

Figure 1: Population Estimates by broad age bands, 2015

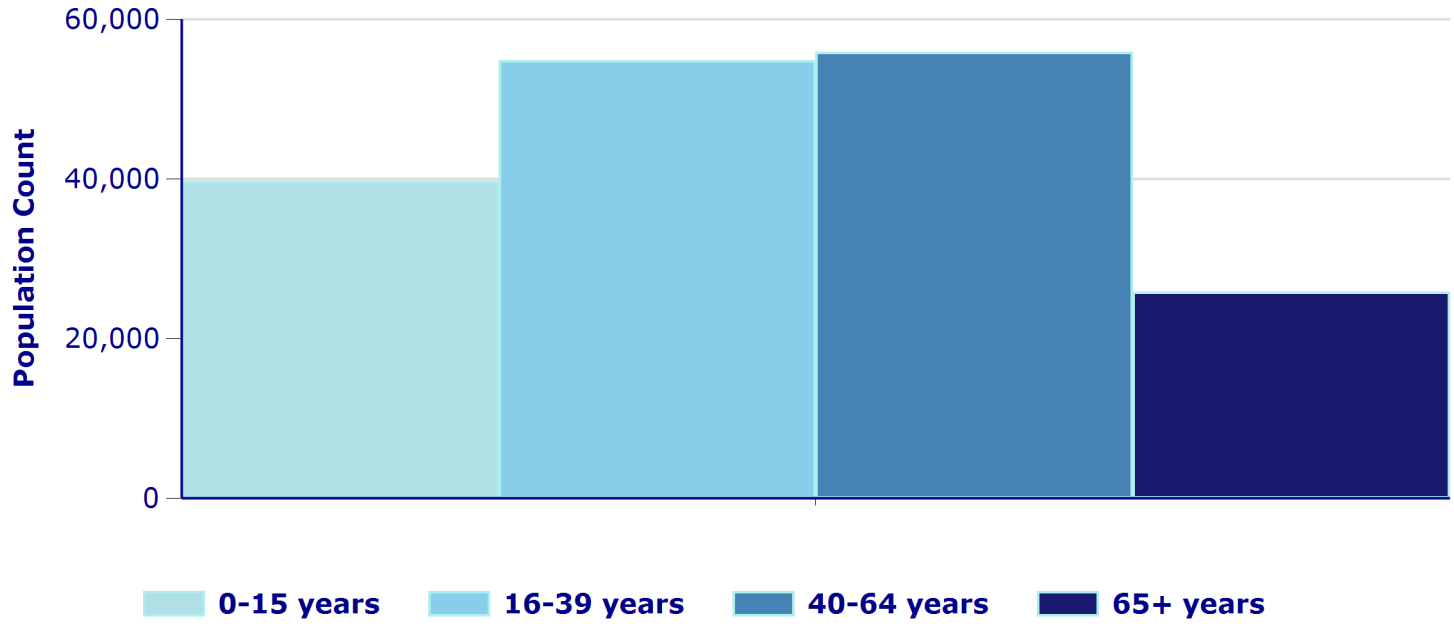
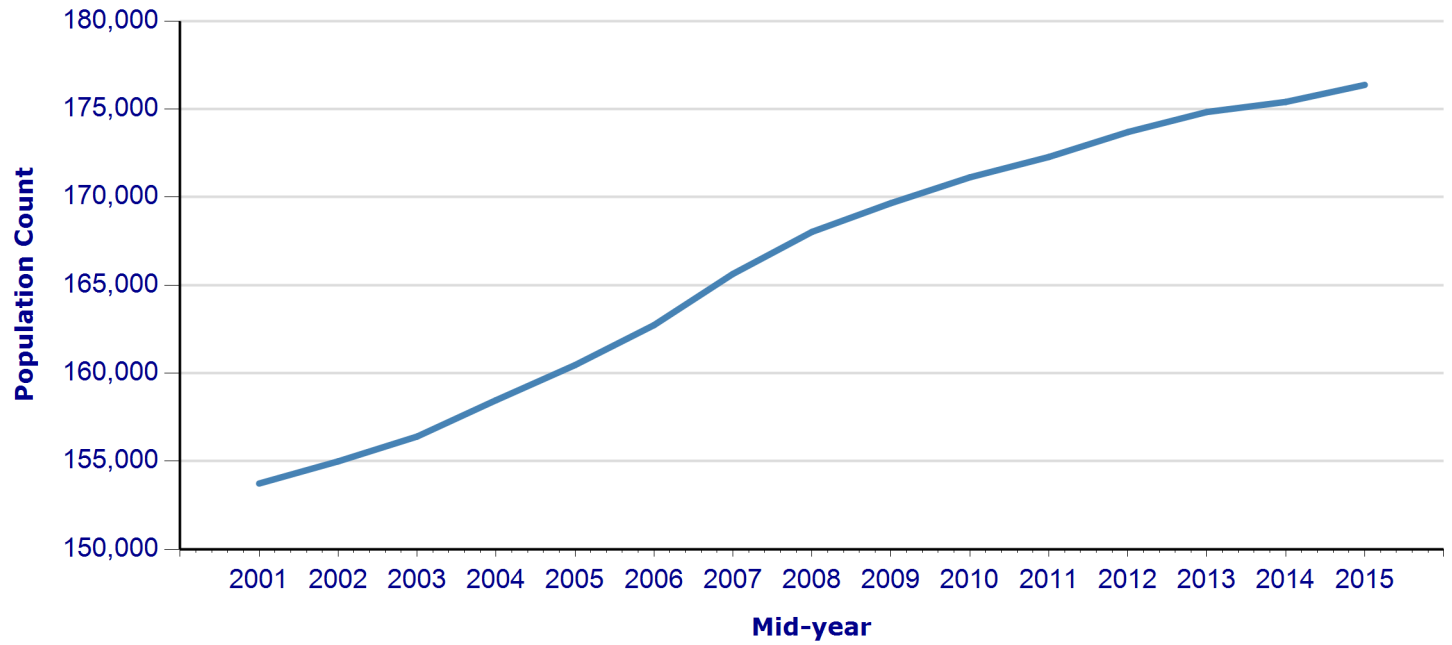


Figure 2: Population Trend, 2001 - 2015 (non-zero axis)



Datasets used: Population Estimates: Broad Age Bands (administrative geographies), NISRA Demography Branch

Further Information:

Further information on Population Estimates including reports, methodolgy etc. can be found on the NISRA website.

Information on Components of Population Change and Migration are available on NINIS.

Interactive content is also available to view under the Population theme.

Profile last updated August 2016

Census 2011 Population Statistics for Newry, Mourne And Down Local Government District (2014)

The reform of Local Government will see the reduction of 26 current Districts (LGD) to 11 new Districts (LGD2014). The 11 new Districts become operational in April 2015; the new Districts will, however, operate in shadow mode after the elections in 2014. See NIDirect for further information.

For the 2011 Census, statistics for the new Districts (LGD2014) are exact aggregates of information available at the Small Area level. For the 2001 Census, the statistics for the new Districts (LGD2014) have been calculated by aggregating 2001 Census Output Area information. Given the exact mapping of 2001 Outputs Areas to 2011 Small Areas, the resulting Local Government District (2014) statistics from the 2001 and 2011 censuses both relate to the same areas.
For further information see A Guidance Note on Census Outputs for the New 11 Districts.

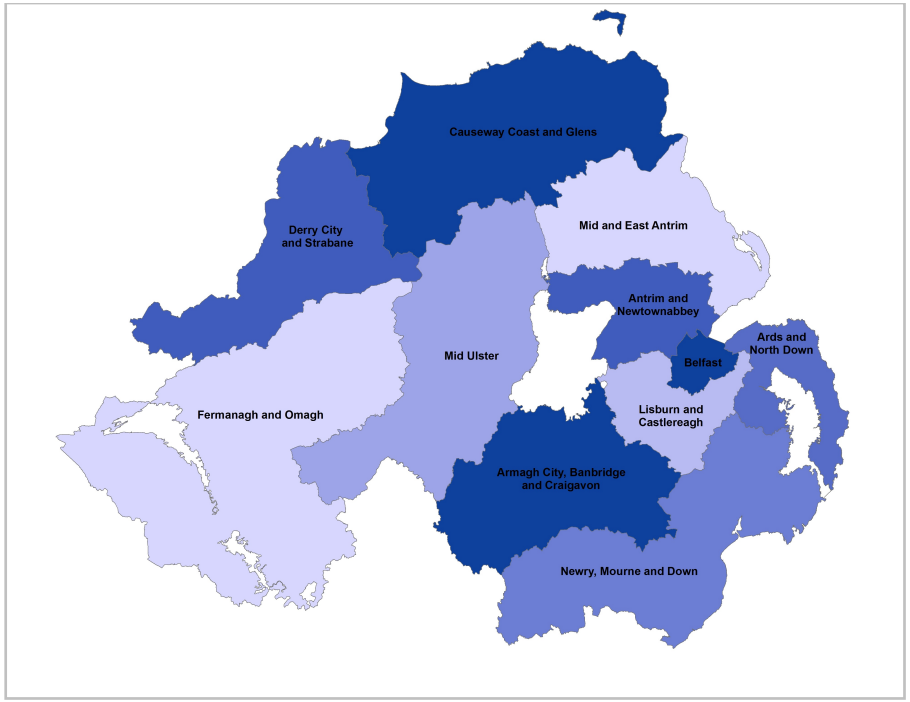
Note that for 2001 Census data, rather than aggregating existing published information available for 2001 Census Output areas (which have all been individually subjected to the disclosure control methodology of "Small Cell Adjustment"), the statistics for the new LGDs (LGD2014) have been calculated by Census Office by aggregating unadjusted 2001 Census Output Area information and then applying the small cell adjustment methodology to the aggregated statistics at LGD level.

This page provides information on the 2011 Census for **Newry, Mourne And Down** Local Government District (2014). Click on the blue tabs at the top to see results for other geographical levels. Information has been grouped according to the Census themes. You can also view Census 2011 Interactive Content on NINIS.

Figure 1: Map of 11 New Districts (LGD 2014)

Click on theme titles below to obtain an area profile for that subject. The datasets used are shown below each section.

- **Usually Resident Population**
- **Population Change**
- **Households**
- **Demography**
- **Ethnicity, Identity, Language and Religion**
- **Health**
- **Housing and Accommodation**
- **Qualifications**
- **Labour Market**



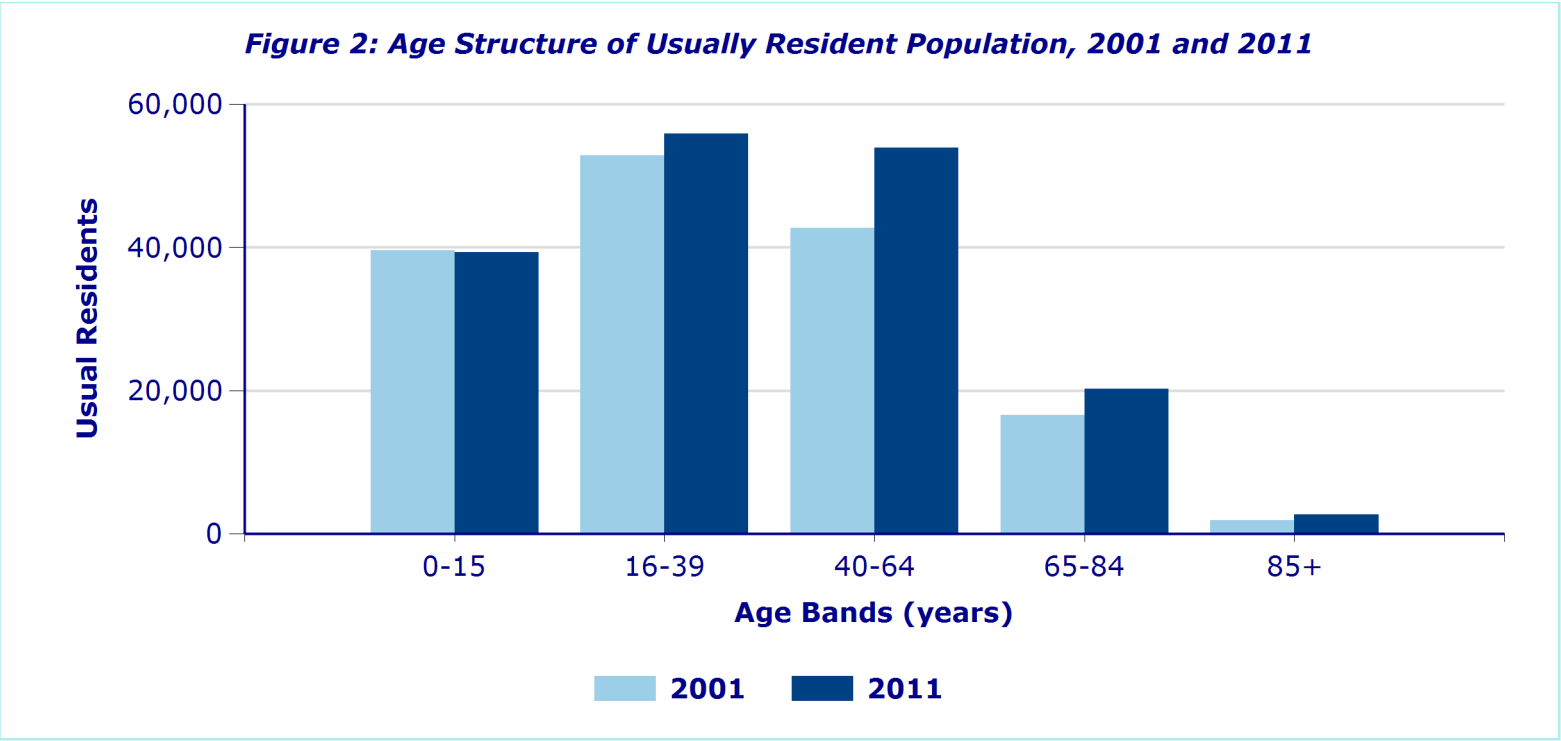
Usually Resident Population

On Census Day (27 March 2011) the usually resident population of **Newry, Mourne And Down** Local Government District (2014) was **171,533** accounting for **9.47%** of the NI total.

This represents a **12.20%** increase since the 2001 Census. The table and chart below show how the age structure of the usually resident population in **Newry, Mourne And Down** Local Government District (2014) on Census Day has changed between 2001 and 2011.

Table 1: Age Structure of Usually Resident Population, 2001 and 2011 Census

	2001		2011	
Age Bands (years)	**Usual Residents**	**%**	**Usual Residents**	**%**
0-15	39,477	25.82	39,078	22.78
16-39	52,410	34.28	55,789	32.52
40-64	42,488	27.79	53,718	31.32
65-84	16,607	10.86	20,270	11.82
85+	1,899	1.24	2,678	1.56
Overall	**152,881**	**100**	**171,533**	**100**



Datasets used: Usually Resident Population by broad age bands and sex (administrative geographies), Usual Resident Population: KS101NI (administrative geographies), Age Structure - KS102NI (administrative geographies), Usually Resident Population by broad age bands (administrative geographies) (2001), NISRA Census Office

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Population Change

The Mid-Year Estimates (MYE) of Population time series is the recommended source to examine population change over time. Population estimates for the 11 new Districts (mid-2001 to mid-2012) have now been released as part of the Small Area Population Estimates and are available on NINIS. See NISRA website for further information. However, since both the 2001 and 2011 Censuses reflect the full population adjusted for census under-enumeration, a comparison of the 2001 and 2011 Censuses provide a robust measure of population change over the decade.

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Households

On Census Day 2011 there were **169,958** people **(99.08%** of the usually resident population**)** living in **61,998** households, giving an average household size of **2.74**. The remaining **1,575** people **(0.92%)** were living in communal establishments.

The table below shows how the household structure of the usually resident population on Census Day has changed between 2001 and 2011.

Table 2: Usual Residents and Households by Household Size, 2001 and 2011 Census

	Usual Residents				Households			
	2001		2011		2001		2011	
Household Size	Number	%	Number	%	Number	%	Number	%
1	12,815	8.50	15,553	9.15	12,815	24.51	15,553	25.09
2	26,096	17.30	34,456	20.27	13,048	24.96	17,228	27.79
3	25,992	17.24	31,503	18.54	8,664	16.57	10,501	16.94
4	33,952	22.51	38,780	22.82	8,488	16.24	9,695	15.64
5+	51,949	34.45	49,666	29.22	9,265	17.72	9,021	14.55
Overall	**150,804**	**100**	**169,958**	**100**	**52,280**	**100**	**61,998**	**100**

Datasets used: Usual Resident Population: KS101NI (administrative geographies), Household Size: KS403NI (administrative geographies), Usually Resident Population and Households (administrative geographies) (2001), NISRA Census Office

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Demography

On Census Day 27th March 2011, in **Newry, Mourne And Down** Local Government District (2014):

- **22.78%** were aged under 16 years and **13.38%** were aged 65 and over;
- **49.60%** of the usually resident population were male and **50.40%** were female; and
- **36** years was the average (median) age of the population.

Datasets used: Age Structure - KS102NI (administrative geographies), Usual Resident Population - KS101NI (administrative geographies), NISRA Census Office

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Ethnicity, Identity, Language and Religion

On Census Day 27th March 2011, in **Newry, Mourne And Down** Local Government District (2014), considering the resident population:

- **0.94%** were from an ethnic minority population and the remaining **99.06%** were white (including Irish Traveller);
- **72.32%** belong to or were brought up in the Catholic religion and **23.91%** belong to or were brought up in a 'Protestant and Other Christian (including Christian related)' religion; and
- **28.53%** indicated that they had a British national identity, **44.31%** had an Irish national identity and **30.39%** had a Northern Irish national identity*.

**Respondents could indicate more than one national identity*

On Census Day 27th March 2011, in **Newry, Mourne And Down** Local Government District (2014), considering the population aged 3 years old and over:

- **16.05%** had some knowledge of Irish;
- **4.45%** had some knowledge of Ulster-Scots; and
- **3.03%** did not have English as their first language.

Datasets used: Ethnic Group - KS201NI (administrative geographies), Religion or Religion Brought Up In - KS212NI (administrative geographies), National Identity (Classification 2) - KS203NI (administrative geographies), Knowledge of Irish - KS209NI (administrative geographies), Knowledge of Ulster-Scots - KS210NI (administrative geographies), Main Language - KS207NI (administrative geographies), NISRA Census Office

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Health

On Census Day 27th March 2011, in **Newry, Mourne And Down** Local Government District (2014):

- **19.85%** of people had a long-term health problem or disability that limited their day-to-day activities;
- **80.98%** of people stated their general health was either good or very good; and
- **11.79%** of people stated that they provided unpaid care to family, friends, neighbours or others.

Datasets used: Health and Provision of Unpaid Care - KS301NI (administrative geographies), NISRA Census Office

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Housing and Accommodation

On Census Day 27th March 2011, in **Newry, Mourne And Down** Local Government District (2014):

- **70.42%** of households were owner occupied and **26.55%** were rented;
- **35.08%** of households were owned outright;
- **10.72%** of households were comprised of a single person aged 65+ years;
- **8.88%** were lone parent households with dependent children; and
- **17.55%** of households did not have access to a car or van.

Datasets used: Tenure and Landlord - KS402NI (administrative geographies), Household Composition - KS105NI (administrative geographies), Car or Van Availability - KS405NI (administrative geographies), NISRA Census Office

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Qualifications

On Census Day 27th March 2011, considering the population aged 16 years old and over:

- **23.12%** had a degree or higher qualification; while
- **39.31%** had no or low (Level 1*) qualifications.

**Level 1 is 1-4 O Levels/CSE/GCSE (any grades) or equivalent*

Datasets used: Qualifications and Students - KS501NI (administrative geographies), NISRA Census Office

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Labour Market

On Census Day 27th March 2011, considering the population aged 16 to 74 years old:

- **66.23%** were economically active, **33.77%** were economically inactive;
- **57.34%** were in paid employment; and
- **5.59%** were unemployed, of these **46.29%** were long-term unemployed*.

**Long-term unemployed are those who stated that they have not worked since 2009 or earlier*

Datasets used: Economic Activity - KS601NI (administrative geographies), NISRA Census Office

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Further Information:

Further information on the terms used in this profile can be found in the Census 2011 Definitions and Output Classifications document.

A NISRA Geography Fact Sheet which includes details on the new district councils is available on the NINIS website, and a Geography Guidance Paper is available on the NISRA website. Static maps of all 11 district councils are also available on NINIS.

Profile last updated January 2014

Deprivation Statistics for Newry, Mourne And Down Local Government District (2014)

Area profiles have now been produced for the 11 new Local Government Districts (LGD 2014) and are based on the Northern Ireland Multiple Deprivation Measure (NIMDM) 2010 results. The base data has not been updated and still relates to the indicators and data as noted in the original report. NISRA has recently been commissioned to initiate work to update this Measure with a view to publish results in mid-2017. See the NISRA website for further information on Deprivation.

For information on how SOAs have been mapped to the 11 new LGDs (LGD 2014), see NI Multiple Deprivation Measure 2010: New Local Government District Profiles.

NIMDM 2010 Summary Measures have been produced for the new LGDs (LGD 2014). The Extent Score, Income Deprived Scale and Employment Deprived Scale for the **Newry, Mourne And Down** LGD 2014 are presented below.

Local Government Districts (2014) are ordered from most deprived to least deprived on each indicator of deprivation and then assigned a rank. The most deprived Local Government District (2014) is ranked 1, and as there are 11 new districts, the least deprived Local Government District (2014) has a rank of 11. The deprivation values and rankings for **Newry, Mourne And Down** Local Government District (2014) are given in the table below.

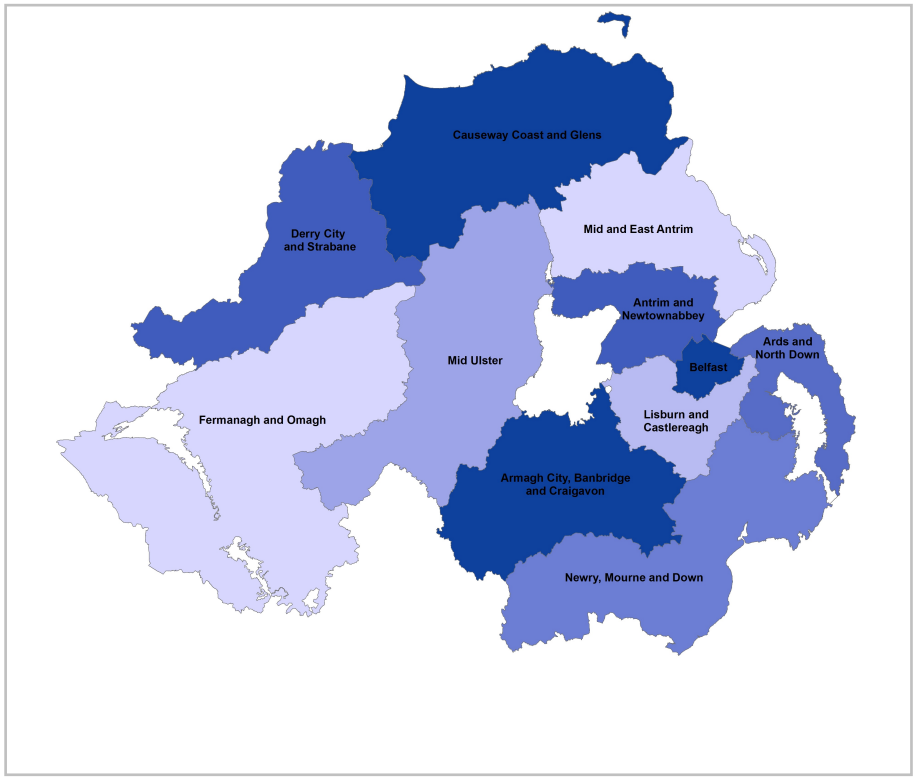


Figure 1: Map of 11 New Districts (LGD 2014)

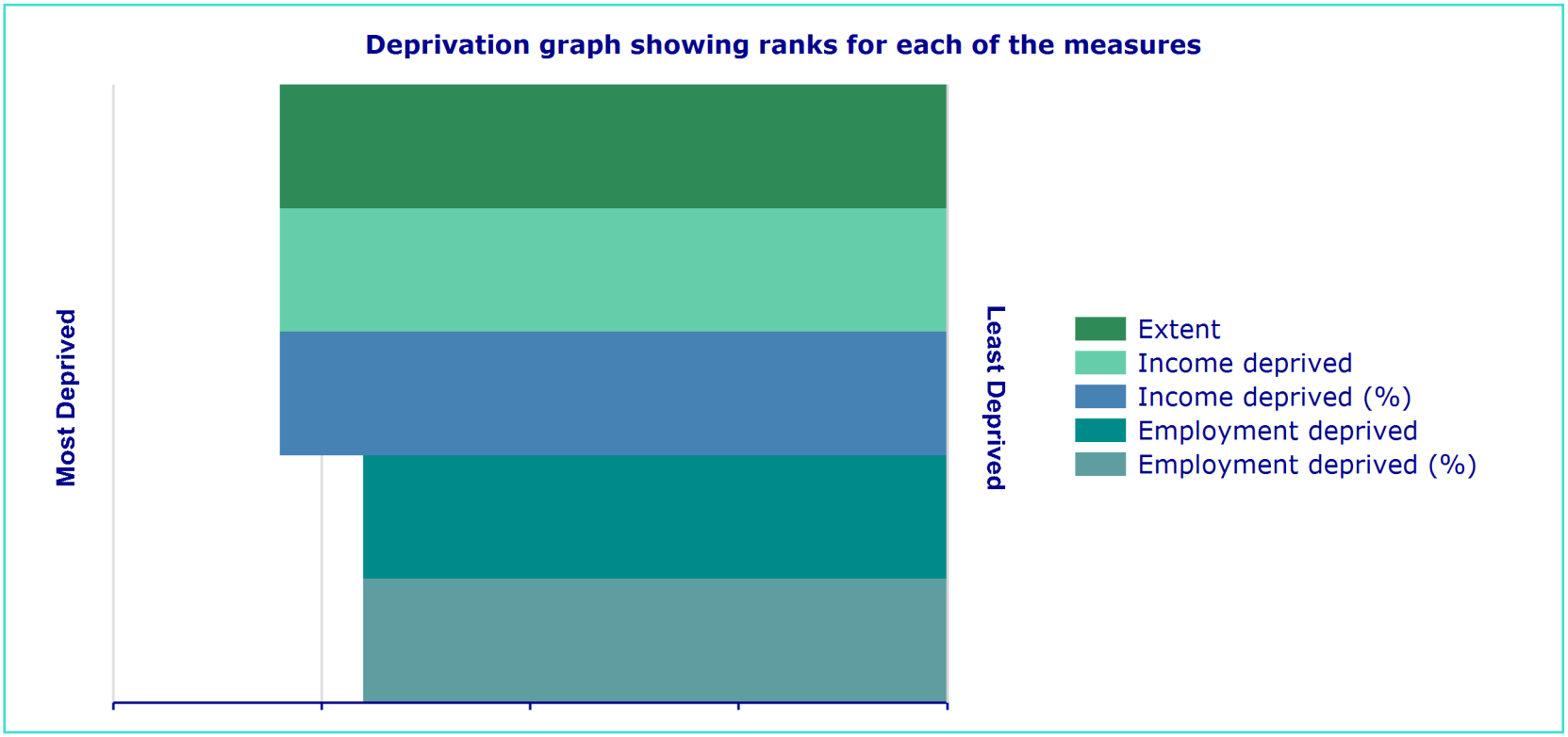
	Newry, Mourne And Down value	**Newry, Mourne And Down** rank	**NI** value
Population (2008)	170,000	-	-
Extent	14%	3	18%
Number of people income deprived	43,900	3	-
Percentage of population income deprived	26%	3	25%

Number of people employment deprived	13,000	4	-
Percentage of working age population employment deprived	13%	4	13%

Datasets used: Northern Ireland Multiple Deprivation Measure 2010 Summary Measures (administrative geographies), NISRA Demography

The Extent Score shows the percentage of an area's population living in the most deprived Super Output Areas (SOAs) in the country. It includes 100% of the people living in the top 10% most deprived SOAs plus a proportion of the population of those SOAs in the next two deciles. See Technical Annex of NIMDM 2010 Report for further details.

The Income and Employment Deprived Scales present the number of people who are identified as income or employment deprived in the Income and Employment Deprivation Domains at the LGD geographies. These values are also expressed as a rate of the total population and working age population resepectively for the Income and Employment Scale. For further information, see the Technical Annex of NIMDM 2010 Report: Creating Summary Measures.



Further information:

You can view a NIMDM 2010 - Local Government District (2014) interactive map on NINIS.

Northern Ireland Multiple Deprivation Measure (NIMDM) 2010 area profiles are currently available on the NISRA website for the 26 existing Local Government Districts (LGDs).

See the NISRA website for further information on Deprivation.

Profile last updated February 2014

Economic and Labour Market Profile for Newry, Mourne And Down Local Government District

This page provides information on the economy and labour market for **Newry, Mourne And Down** Local Government District.

Click on the themes below to obtain statistics for that subject. The datasets used are shown below each section.

Demographic Profile

176,369

Population (2015)

62.8%
of the population

Working Age Population aged 16-64 (2015)

64,594

Households (2015)

Population

The estimated population of **Newry, Mourne And Down** Local Government District at 30 June 2015 was 176,369.

This was made up of:

- 39,734 children aged 0-15 years;
- 54,841 people aged 16-39 years;
- 55,933 people aged 40-64 years; and
- 25,861 people aged 65 years and older.

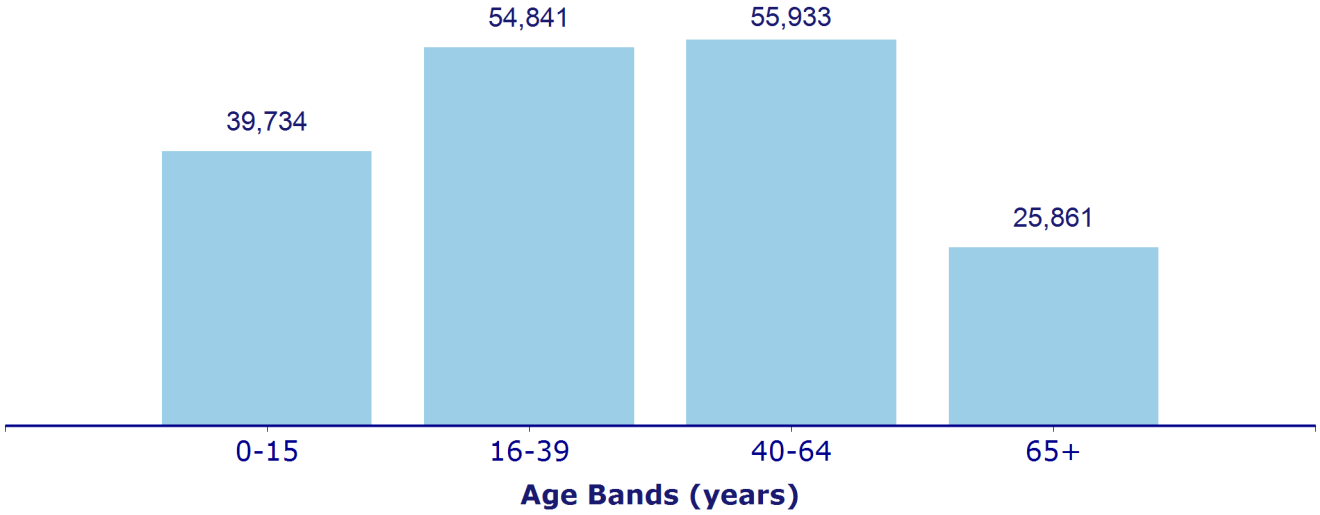
The working age* population in 2015 was:

- 110,774, 62.8% of the population; this compared with 63.4% for **Northern Ireland**.

The working age population of **Newry, Mourne And Down** Local Government District is projected to increase to 113,625 by 2025.

**The term 'working age' refers to the population aged 16-64 years for both males and females.*

Figure 1: Population Estimates, 2015



Households

The projected number of households in **Newry, Mourne And Down** Local Government District in 2015 was 64,594 while for 2025 the number of households is projected to be 70,923.

Datasets used: Population Estimates: Broad Age Bands (administrative geographies), Population Projections (administrative geographies), Household Projections: 2012-based (administrative geographies), NISRA Demographic Statistics

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Labour Market

70.4%

Economic Activity Rate aged 16-64 (2015)

3.4%

Claimant Count Rate aged 16-64 (2015)

£435.90

Gross Median Full-time Weekly Wage (2015)

Employment Rate

In 2015, the 16-64 employment rate in **Newry, Mourne And Down** Local Government District was 66.2%. The overall 16-64 employment rate for Northern Ireland was 68.4%.

Economic Activity

In 2015, 70.4% of those aged 16-64 living in **Newry, Mourne And Down** Local Government District were economically active* and 29.6% were economically inactive**.

This compares with 72.9% economically active and 27.1% economically inactive for **Northern Ireland**.

** Economically Active - People aged 16 and over who are either in employment or unemployed. ** Economically Inactive - People who are neither in employment nor unemployed. This group includes, for example, all those who were looking after a home or retired.*

Claimant Count

The average number of people aged 16-64 in **Newry, Mourne And Down** Local Government District claiming Job Seekers Allowance (JSA) in 2015 was 3,769, representing a claimant count annual average rate of 3.4%. This compares with a claimant count rate for **Northern Ireland** of 3.7% in 2015**.**

In 2015, the proportion of total claimants who were long-term* unemployed was 36.9% (**NI**: 37.0%).

In 2015, youth claimant count rate** (aged 18-24) in **Newry, Mourne And Down** Local Government District was 6.0% (**NI**: 6.5%).

** long-term unemployment includes those aged 16-64 who have been claiming Job Seekers Allowance for 12 months or more.*
*** rate is youth percentage of total claimants.*

An interactive map showing claimant count by Local Government District is available to view on NINIS.

Qualification Level

In 2015, in terms of educational attainment for those persons aged 16-64 in **Newry, Mourne And Down** Local Government District, 34.1% were qualified to NVQ Level 4 or above (**NI** Average: 29.9%), whilst 14.2% had 'no qualifications' (**NI** Average: 16.5%).

Weekly Wage

At April 2015, the gross full-time median weekly wage in **Newry, Mourne And Down** Local Government District was £435.90 compared with £484.90 for NI.

Job Vacancies

In 2015/16, there were 2,576 vacancies notified in **Newry, Mourne And Down** Local Government District to Jobs and Benefits Offices.

Training and Employment measure statistics are also available on NINIS. These have not yet been published on NINIS for the new Local Government Districts. For further information see Department for Communities website.

Datasets used: Labour Force Survey 2015 Local Area Database, Claimant Count Annual Averages (administrative geographies), Claimant Count Annual Averages: 18-24 years (administrative geographies), Claimant Count Long Term Unemployed Annual Averages (administrative geographies), Gross Weekly Pay - Annual Survey of Hours and Earnings (administrative geographies), NISRA Economic and Labour Market Statistics Branch; Vacancies notified to Job Centres/Jobs and Benefits Offices (administrative geographies), Department for Communities

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Business

Business

At March 2014, the number of businesses registered for VAT and/or PAYE in **Newry, Mourne And Down** Local Government District was 7,500**.** Of these 7,410 were classified as small, 80 as medium and 5 as large.

Small business: less than 50 employees
Medium business: 50-249 employees
Large business: 250+ employees

GVA, Turnover and Purchases

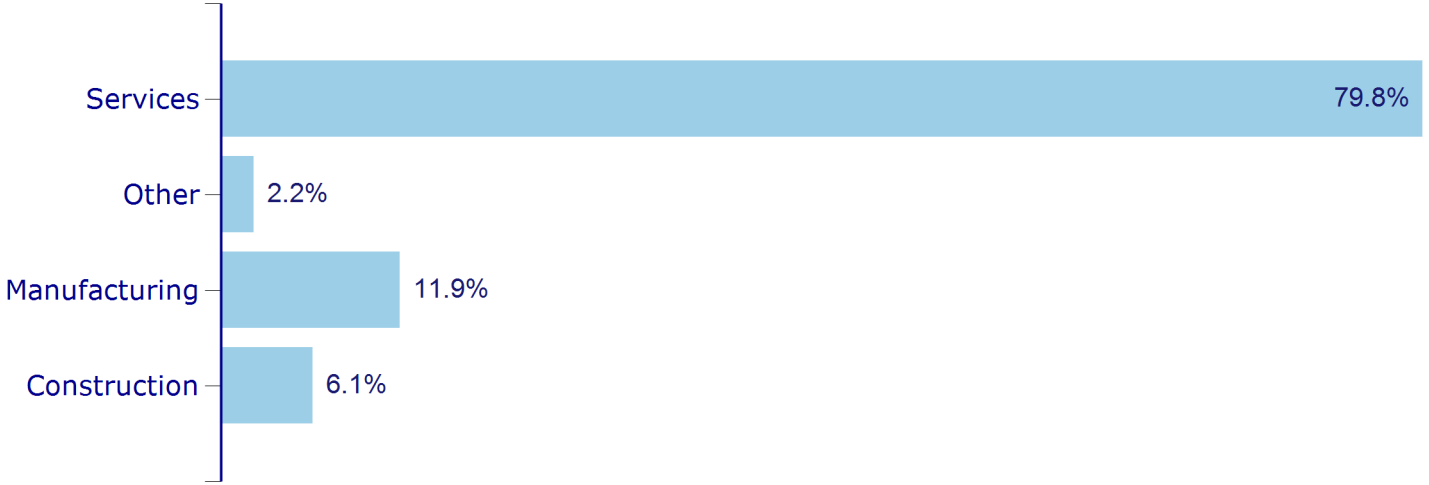
In 2014, the income generated in **Newry, Mourne And Down** Local Government District, less the cost of goods and services used to create this income was estimated to be £1,434.37 million. This amount represents the approximate Gross Value Added (aGVA).

Turnover in the same period in **Newry, Mourne And Down** Local Government District was £4,370.07 million and Purchases was £3,008.69 million.

Employee Jobs

In September 2013, the number of employee jobs in **Newry, Mourne And Down** Local Government District was 51,178, with 6.1% in Construction, 79.8% in Services, 11.9% in Manufacturing and 2.2% in other industries.

Figure 3: Employee Jobs by Sector, 2013



Redundancies

There were 133 confirmed redundancies in **Newry, Mourne And Down** Local Government District during 2015.

Investment

In 2015/16, InvestNI made 278 offers of support totalling £3.67 million in assistance, which contributed towards investment of £26.83 million in **Newry, Mourne And Down** Local Government District.

Datasets used: VAT and/or PAYE Registered Businesses Operating in NI (administrative geographies), Annual Business Inquiry Estimates (administrative geographies), Employee Jobs (administrative geographies), Redundancies Confirmed (administrative geographies), NISRA Economic and Labour Market Statistics Branch; Invest NI Support (administrative geographies), Invest NI

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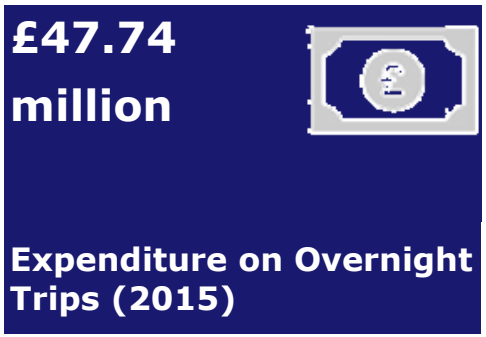
Tourism



Tourism

In 2015, the estimated number of overnight trips in **Newry, Mourne And Down** Local Government District was 404,442 with an associated number of 1,056,896 nights stayed and expenditure of £47.74 million during these overnight trips.

Datasets used: Tourism - Estimated Overnight Trips, Nights and Expenditure (administrative geographies), Tourism Statistics Branch

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Personal Finances

Bankruptcy

In 2015, there were 157 participants in **Newry, Mourne And Down** Local Government District disposed of in bankruptcy cases in the High Court.

Property Repossessions

In 2015, there were 63 property repossessions completed in **Newry, Mourne And Down** Local Government District.

Datasets used: Bankruptcy Cases Disposed (administrative geographies), Property Repossessions Completed (administrative geographies), NI Courts Service

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Further Information:

Further information on Economic and Labour Market Statistics including reports, methodology etc. can be found on the Department for the Economy website.

Further Statistics and Interactive Content are available to view under the Business, Economy and Labour Market themes on NINIS.

Profile last updated September 2016

Age Friendly Profile for Newry, Mourne and Down Local Government District (LGD2014)

'An Age-friendly world is a place that enables people of all ages to actively participate in community activities. It is a place that treats everyone with respect, regardless of their age. It is a place that makes it easy to stay connected to those around you and those you love. It is a place that helps people stay healthy and active even at the oldest ages. And it is a place that helps those who can no longer look after themselves to live with dignity and enjoyment. Many cities and communities are already taking active steps towards becoming more age-friendly'. (World Health Organization WHO).

The World Health Organisation (WHO) has established a global network of Age Friendly Cities and Communities that encourage active ageing by optimising opportunities for health, participation and security in order to enhance quality of life as people grow older. The WHO has proposed eight areas that can help to identify and address barriers to the well-being and participation of older people. Key statistics on each of these themes are included below. By way of background, demographic and deprivation profiles have also been included for the local council areas.

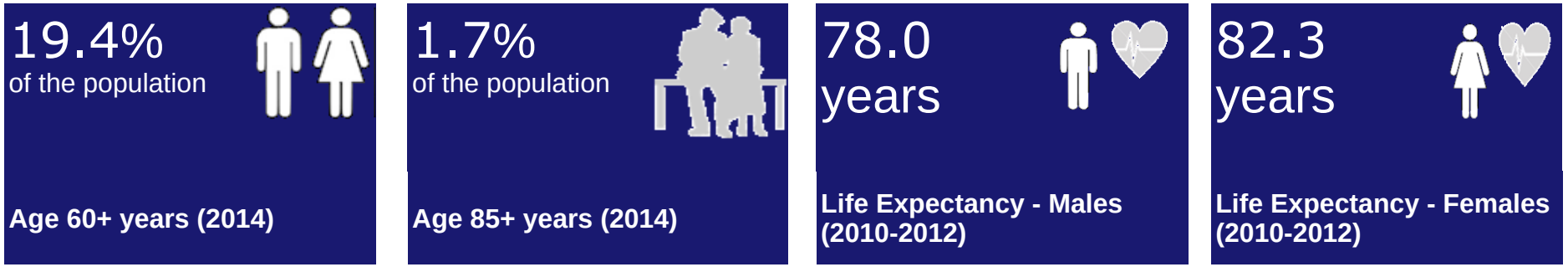
'Northern Ireland is an age friendly region in which people, as they get older, are valued and supported to live actively to their fullest potential; with their rights and dignity protected' (OFMDFM Vision).

Further information on an Age-friendly world is available on the WHO website.

This page provides useful statistics on the age-friendliness of **Newry, Mourne and Down** Local Government District (LGD2014). An infographic showing some of the key statistics for **Newry, Mourne and Down** LGD2014 is also available.

Click on theme titles below to obtain an area profile for that subject. The datasets used are shown below each section.

Demography

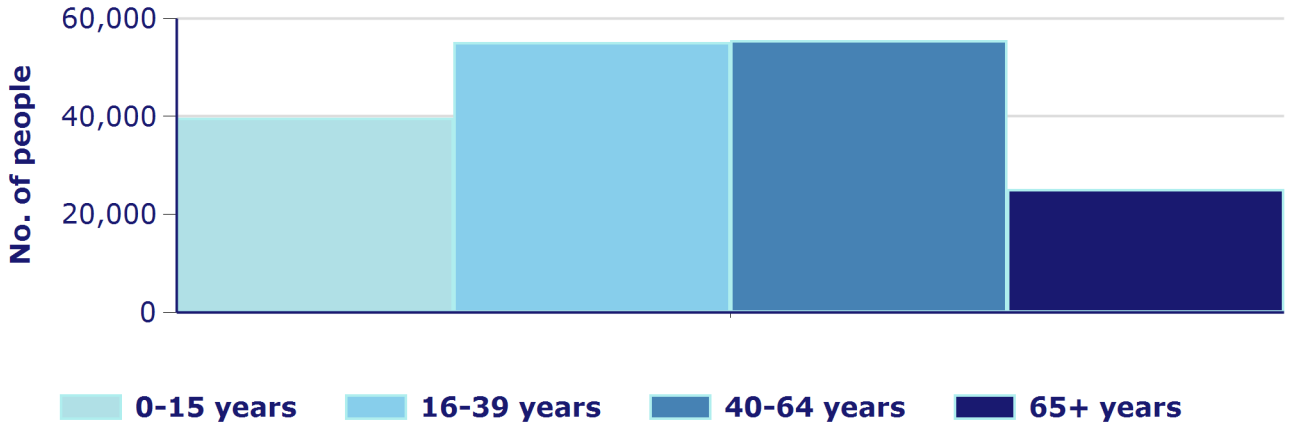


On 30 June 2014, the estimated population of **Newry, Mourne and Down** LGD2014 was 175,403, accounting for 9.5% of the **Northern Ireland** total.

19.4% (34,053 people) of the population of **Newry, Mourne and Down** LGD2014 were aged 60+ years. Of those aged 60+ in **Newry, Mourne and Down** LGD2014, 46.6% (15,882 people) were male and 53.4% (18,171 people) were female.

1.7% (2,954 people) of the population of **Newry, Mourne and Down** LGD2014 were aged 85+ years. Of those aged 85+ in **Newry, Mourne and Down** LGD2014, 33.2% (982 people) were male and 66.8% (1,972 people) were female.

Figure 1: Population Estimates by broad age bands, 2014



Projected Population

The population of **Newry, Mourne and Down** LGD2014 aged 60+ is expected to rise to 58,141 by 2037 (28.4% of the projected population for **Newry, Mourne and Down** LGD2014). An interactive population pyramid showing population projections by Local Government District (LGD2014) is available to view on NINIS.

Deaths

There were 11,926 deaths registered for persons aged 65+ years in **Northern Ireland** in 2014. Of these deaths 28% were to malignant neoplasms, 16% were to respiratory disease and 27% were to circulatory disease.

There were 1,050 deaths registered for persons aged 65+ years in **Newry, Mourne and Down** LGD2014 in 2014. Of these deaths 29% were to malignant neoplasms, 14% were to respiratory disease and 26% were to circulatory disease.

In 2014, the median age at death was 79 in **Newry, Mourne and Down** LGD2014; the corresponding figure for **Northern Ireland was** 80 .

Life Expectancy

Average life expectancy measures the expected years at birth based on the mortality rates of the period in question. In **Northern Ireland**, life expectancy at birth for males is 77.7 years and 82.1 years for females. In **Newry, Mourne and Down** LGD2014, life expectancy at birth for males is 78.0 years and 82.3 years for females (Calculated using information aggregated from 2010 to 2012).

	Newry, Mourne and Down LGD2014				
	2006-2008	2007-2009	2008-2010	2009-2011	2010-2012
Life Expectancy - Males (years)	76.7	77.5	77.5	78.0	78.0
Life Expectancy - Females (years)	80.6	81.2	81.5	82.1	82.3

Healthy Life Expectancy

Healthy Life Expectancy is the average number of additional years a person would live in a given health state if he or she experienced the specified population's particular age-specific mortality and health status for that time period throughout the rest of his or her life.

Healthy life expectancy for males in **Northern Ireland** for 2010-2012 is 58.6 years, and for females is 61.6 years. Data are not available at LGD2014 level.

Disability-free Life Expectancy

Disability-free Life Expectancy is the average number of years that a person can expect to live free of disability if current patterns of mortality and disability continue to apply.

Disability-free life expectancy for males in **Northern Ireland** for 2010-2012 is 60.2 years, and for females is 60.8 years. Data are not available at LGD2014 level.

Excess Winter Deaths

In the winter period (December to March) of 2013/14 there were an extra 593 deaths in **Northern Ireland**, compared to the average for the non-winter periods (previous August to November and the following April to July). The majority (83%) of these deaths were among older people aged aged 75 years and over. Of the 593 deaths, 53 were registered in **Newry, Mourne and Down** LGD2014.

The Excess Winter Mortality Index for **Newry, Mourne and Down** LGD2014 was 13.1 compared with 13.0 for **Northern Ireland** (the number of excess winter deaths divided by the average non-winter deaths expressed as a percentage).

	Newry, Mourne and Down LGD2014				
	2009/10	2010/11	2011/12	2012/13	2013/14
Excess Winter Deaths	108	36	36	28	53
Excess Winter Mortality Index	29.5	9.0	8.7	6.7	13.1

Sources/Datasets used: Population Estimates: Broad Age Bands (administrative geographies), Population Estimates - 5 year age bands (administrative geographies), Population Projections (administrative geographies) (administrative geographies), Deaths by Cause and Age: 65+ years (administrative geographies), Excess Winter Mortality (administrative geographies), NISRA Demographic Statistics; European Age Standardised Death Rate (administrative geographies), Healthy Life Expectancy (administrative geographies), Disability Free Life Expectancy (administrative geographies), DHSSPS

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Deprivation

Deprivation - NIMDM 2010

The Northern Ireland Multiple Deprivation Measure 2010 (NIMDM 2010) report was published in May 2010. The report identifies small area concentrations of multiple deprivation across Northern Ireland.

Ten measures are presented at the Super Output Area (SOA) level: The Multiple Deprivation Measure, seven domains of deprivation and two supplementary income measures for older people and children.

Income Deprivation affecting Older People

The Income Deprivation Affecting Older People (IDAOP) counts those aged 60+ living in income deprived households. Within **Newry, Mourne and Down** LGD2014 the most deprived Super Output Area based on the IDAOP measure is Crossmaglen, where 82% of older people were income deprived (ranked 26 out of 890 in NI). The least deprived Super Output Area based on the IDAOP measure is Saintfield 2, where 10% of older people are income deprived (ranked 864 out of 890 in NI).

**1 is the most deprived SOA in Nothern Ireland and 890 the least deprived.*

Sources/Datasets used: Northern Ireland Multiple Deprivation Measure 2010 Summary Measures (administrative geographies), Northern Ireland Multiple Deprivation Measure 2010 (statistical geographies), NISRA Demographic Statistics

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Outdoor Spaces and Buildings

The outside environment and public buildings have a major impact on the mobility, independence and quality of life of older people.

Living Environment Deprivation - Outdoor Physical Environment

The Northern Ireland Deprivation Measure 2010 Living Environment Domain - the purpose of this domain is to identify small areas experiencing deprivation in terms of the quality of housing, access to suitable housing and the outdoor physical environment. It comprises three separate sub-domains measuring each of these.

Within **Newry, Mourne and Down** LGD2014 the most deprived Super Output Area based on the outdoor physical environment sub-domain measure is Ballybot (ranked 143 out of 890 in NI) and the least deprived Super Output Area is Mayobridge 2 (ranked 888 out of 890 in NI).

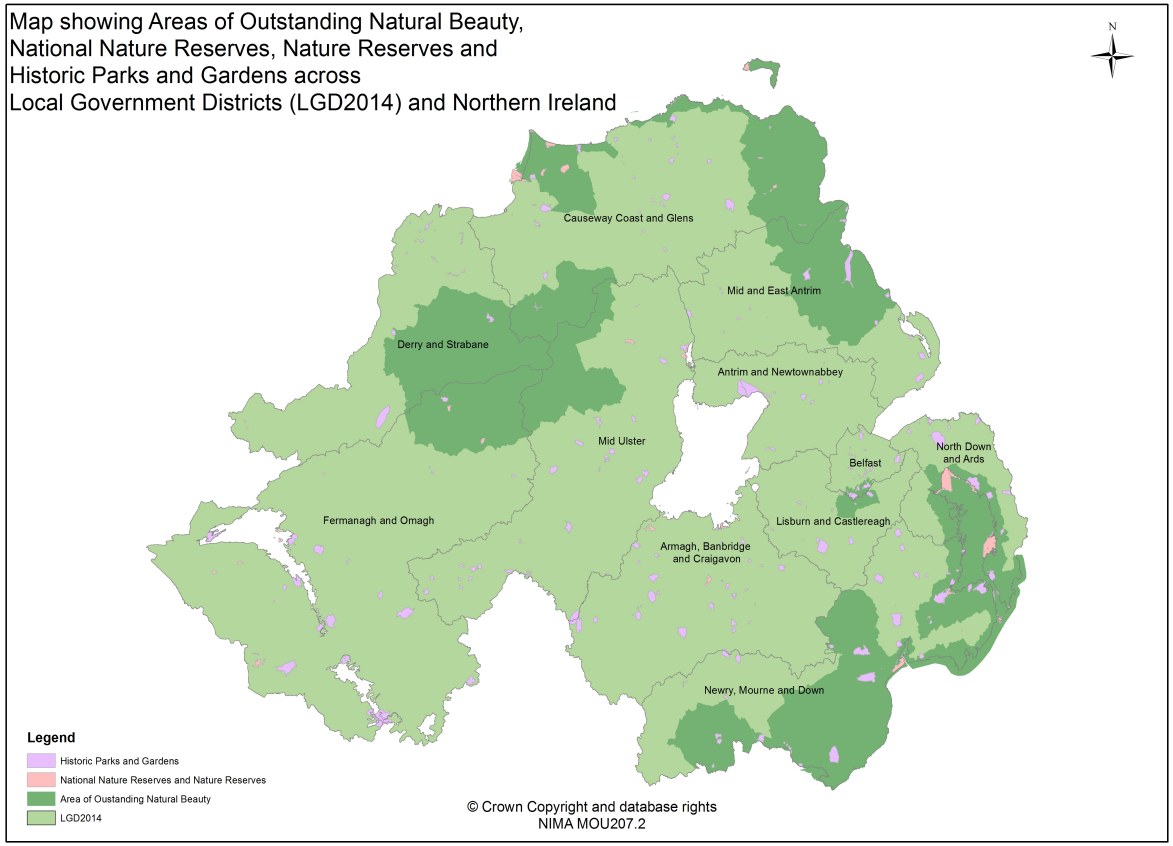
**1 is the most deprived SOA in Nothern Ireland and 890 the least deprived.*

Outdoor Spaces

Having green spaces is one of the most commonly mentioned age-friendly features. For its small area, Northern Ireland has a great variety of scenic countryside and although there are no National Parks, large areas of landscape of distinctive character and special scenic value have been designated Areas of Outstanding Natural Beauty (AONBs). This designation is designed to protect and enhance the qualities of each area and to promote their enjoyment by the public.

There are 8 Areas of Outstanding Natural Beauty in Northern Ireland as well as Northern Ireland Environment Agency Country Parks and nature reserves. The boundaries of each AONB within local government district areas can be viewed here.

The WHO Outdoor Space and Buildings guide highlights that Services are clustered, located in close proximity to where older people live and can be easily accessed. Locational data including credit unions, dental surgeries, indoor bowling, pharmacies, shopping centres and visitor attractions are available to view on NINIS.



Outdoor Safety

Policing and Community Safety Partnerships (PCSPs) aim to make our community safer by focusing on the policing and community safety issues that matter most in each local council area. Recorded Crime statistics are available on NINIS and show there were 8,836 recorded crime offences in **Newry, Mourne and Down** LGD2014 during 2013/14, which accounted for 8.6% of recorded crime offences in Northern Ireland. An interactive map showing Recorded Crime is available to view on NINIS.

'Violence Against the Person' offences, where victims are 60+ years old, have risen in the five year period shown, such crimes against older people are still relatively rare. In **Northern Ireland**, three in 1000 people aged 60+ years were victims of offences of violence against the person in 2013/14, accounting for 3.9% of such victims although they constitute 20.4% of the total population.

Recorded Crime – Victim aged 60+, Northern Ireland

	Northern Ireland				
Financial Year	2009/10	2010/11	2011/12	2012/13	2013/14
Violence against the Person	715	727	874	923	1,134
Burglary	1,928	1,755	1,786	1,608	1,633
Non Vehicle Theft	1,302	1,387	1,586	1,688	1,676
Criminal Damage	2,544	2,317	2,227	2,112	1,961
Other Offences	934	832	817	857	971
Total	7,423	7,018	7,290	7,188	7,375

In 2013/14, 7% of respondents to the Northern Ireland Crime Survey aged 60 and over stated that they were very worried about crime with 70% stating that 'fear of crime' has a minimal affect on their life. 11% of respondents in this age group felt unsafe walking alone in their area at night.

Financial Year	Northern Ireland			
Percentage of older people (aged 60+) who:	2010/11	2011/12	2012/13	2013/14
are **very worried** about crime ($%)	8	8	7	7
state ***'fear of crime'*** has a **minimal affect** on their quality of life (%)	68	64	70	71
Feel **very unsafe walking alone** in their area after dark (%)	13	12	11	11

Sources/Datasets used: Northern Ireland Multiple Deprivation Measure 2010 (statistical geographies), NISRA Demographic Statistics; Recorded Crime (administrative geographies), Recorded Crime Interactive Map, Recorded Crime by Age and Gender, PSNI; NI Crime Survey, DOJ

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Transportation

Transportation, including accessible and affordable public transport, is a key factor influencing active ageing. It is a theme running through many other age-friendly topics. In particular, being able to move about the community determines social and civic participation and access to community and health services.

Persons aged 65+ years living in households with access to Car or Van (2011)

Persons aged 60+ years killed or seriously injured in Road Traffic Collisions (2014)

Public Transport

Concessionary fare scheme 'SmartPass' - Free travel is available to all senior citizens who are 60 years of age or over and who are resident in **Northern Ireland**. You can travel anywhere in Northern Ireland on any Translink bus or rail service completely free of charge. You can also enjoy free cross border rail travel. Locational data for bus and rail stations can be accessed via the *People and Places* theme on NINIS.

In **Northern Ireland,** Dept for Regional Development (DRD) report that there were 1,402 buses used in 2013/14 as public service vehicles of which 1,362 have an accessibility certificate or low floor access.

DRD published a report on 'Attitudes of disabled and older people to public transport' (Nov 2014 to Jan 2015). Of those aged 70 and over, 39% answered 'car' either as a 'driver' and 12% as a 'passenger' as the type of transport they used most often with a further 28% of respondents stating 'Bus – Translink (Ulsterbus, Metro)'. The main factor making it difficult to or preventing the use of public transport in the past 12 months for those in this age group was bus / train times don't always meet my needs (31%), 24% stated difficulty getting on or off vehicles and 20% stated attitudes of bus drivers or other Translink (Ulsterbus / Metro / Northern Ireland Railways) staff.

Private Transport'

On Census day 2011, there were 21,964 people aged 65+ years in **Newry, Mourne and Down** LGD2014 living in households. 79% of these lived in households with access to a car or van.

Road Safety

The total number of reported road traffic collision casualties for persons aged 60+ in **Northern Ireland** in 2014 was 1,043. Of these 136 were killed/seriously injured and a further 907 were slightly injured.

The total number of reported road traffic collision casualties for persons aged 60+ in **Newry, Mourne and Down** LGD2014 in 2014 was 113. Of these 19 were killed/seriously injured and 94 were slightly injured.

Sources/Datasets used: Road Traffic Collision Casualties by Severity of Injury aged 60 and over (administrative geographies), PSNI; Number of Cars or Vans CT0098NI, NISRA Census

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Housing

Housing is essential to safety and well-being. There is a link between appropriate housing and access to community and social services

in influencing the independence and quality of life of older people.

Households

In **Northern Ireland** on Census day 2011, there were 263,720 people aged 65+ years. Of these, 96% lived in a household and 4% lived in communal establishments. On Census day 2011, there were 22,948 people aged 65+ years living in **Newry, Mourne and Down** LGD2014; 96% lived in a household and 4% lived in communal establishments.

Of those 21,964 people aged 65+ years living in households in **Newry, Mourne and Down** LGD2014, 80% lived in households that were owner occupied, 9% in households that were social rented, 6% in households that were private rented and 5% were living rent free. Comparative figures for **Northern Ireland** (people aged 65+ years) are 77% lived in households that were owner occupied, 14% in households that were social rented, 5% in households that were private rented and 4% were living rent free.

On Census day 2011, 6,644 households in **Newry, Mourne and Down** LGD2014 were one person households where the resident was aged 65+ years. 3,724 households were one family houses where all people were aged 65+ years and 325 households were other household types where all residents were aged 65+ years.

Sufficient/Adequate Housing

Data from the Nothern Ireland Housing Executive (NIHE) show that in March 2014, 5,909 applicants aged 60+ years were on the waiting list for housing in **Northern Ireland** and of these 3,499 (59.2%) were in housing stress.

A key objective of the NIHE House Condition Survey (HCS) 2011 was to provide a comprehensive picture of the dwelling stock and its condition in 2011 for NI and each of the 26 District Councils. This survey estimated that 42.0% of households in NI were in fuel poverty. For households where the Household Reference Person (HRP) was aged 60-74 years, 52.0% of households were in fuel poverty rising to 66.3% where the Household Reference Person was aged 75+ years.

Note - The definition of a fuel poor household is one needing to spend in excess of 10 per cent of its household income on all fuel use to achieve a satisfactory standard of warmth (21oC in the main living area and 18oC in other occupied rooms; World Health Organisation). Fuel Poverty assesses the ability to meet all domestic energy costs including space and water heating, cooking, lights and appliances.

Living Environment Deprivation - Housing Access and Housing Quality

The Northern Ireland Deprivation Measure 2010 Living Environment Domain - the purpose of this domain is to identify small areas experiencing deprivation in terms of the quality of housing, access to suitable housing and the outdoor physical environment. It comprises three separate sub-domains measuring these.

Within **Newry, Mourne and Down** LGD2014 the most deprived Super Output Area based on the housing quality sub-domain measure is Tollymore 1 (ranked 17 out of 890 in NI) and the least deprived Super Output Area is Saintfield 1 (ranked 730 out of 890 in NI).

Within **Newry, Mourne and Down** LGD2014 the most deprived Super Output Area based on the housing access sub-domain measure is

Ballymote (ranked 54 out of 890 in NI) and the least deprived Super Output Area is Donaghmore 2 (ranked 865 out of 890 in NI).

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Affordable Housing

The Standardised Price of Residential Properties sold between April and June 2015 (Q2 2015) for **Newry, Mourne And Down** LGD2014 was £113,724. The standardised price across Northern Ireland in Q2 2015 ranged from £93,806 in Derry and Strabane district to £135,988 in North Down and Ards district. Standardised prices and a price index for each LGD2014 can be found in the Northern Ireland Residential Property Price Index detailed statistics.

In 2013/14, the Disabled Facilities Grant, to improve the home of a person with a disability, was approved for 658 applicants aged 60 or over in **Northern Ireland**.
Note: This grant is to help to improve the home of a person with a disability, and may be based on the recommendation of an occupational therapist.

At June 2014, there were 3,150 Housing Benefit claimants aged 50-64 years and 2,450 Housing Benefit claimants aged 65+ years in **Newry, Mourne And Down** LGD2014 in 2014. An interactive map of Housing Benefit is available to view on NINIS.

Adaptation of Accomodation

On Census day 2011, there were 21,964 people aged 65+ years in **Newry, Mourne and Down** LGD2014 living in households:

- 7.8% lived in households that had been adapted or designed for wheelchair use (NI: 7.1%)
- 0.5% lived in households that had been adapted or designed for visual difficulties (NI: 0.5%)
- 1.4% lived in households that had been adapted or designed for hearing difficulties (NI: 1.2%)
- 10.6% lived in households that had been adapted or designed for other physical or mobility issues (NI: 12.4%)
- 0.3% lived in households that had been adapted or designed for other circumstances (NI: 0.4%); and
- 82.4% lived in households that had no adaptation (NI: 81.5%)

Note - Household accommodation that has been adapted or designed for one or more of the following; wheelchair, visual, hearing, other physical or mobility difficulties - Percentages may not sum to 100% as there may be more than one type of adaptation per household.

Sources/Datasets used: Usual Resident Population CT0106NI, Tenure CT0107NI, Household Composition: KS105NI (administrative geographies), NISRA Census Office; Housing Waiting List for aged 60 and over (administrative geographies), House Conditions Survey 2011, NI Housing Executive; Northern Ireland Multiple Deprivation Measure 2010 (statistical geographies), NISRA Demographic Statistics; House Price Index, DFP Land and Property Services; Disabled Facilities Grants Approved for applicants aged 60 and over (administrative geographies) NI Housing Executive; Housing Benefit Claimants (administrative geographies), Housing Benefits Interactive Map, Department for Social Development; Adaptation of Accommodation CT0108NI, NISRA Census Office

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Social Participation

Social participation and social support are strongly connected to good health and well-being throughout life. Participating in leisure, social, cultural and spiritual activities in the community, as well as with the family, allows older people to continue to exercise their competence, to enjoy respect and esteem, and to maintain or establish supportive and caring relationships.

Events and Activities

Research was carried out by DCAL to obtain a deeper understanding of the relationship between older people and culture, arts and leisure. A literature review (DCAL, 2015) explored engagement in sport, arts, museums and libraries for older adults and identified a number of barriers to engagement. Further research used logistic regression to explore these barriers further and to identify the factors associated with engagement in culture, arts and leisure by older people.

The report found that, of those aged over 50, there were:

- 29% who participated in sport or physical activity;
- 28% who participated in arts activities;
- 57% who attended arts events;
- 25% who used a library; and
- 22% who visited a museum

all during the year prior to being asked.

The factors which appear consistently as having the most influence on an older persons engagement across the culture, arts and leisure areas are their level of educational attainment, i.e. having a degree or higher qualification; their socio-economic classification, i.e. classified as being in managerial and professional occupations; and their use of the internet.

Marriages

There were 998 marriages registered in **Newry, Mourne and Down** LGD2014 in 2014. Analysis by age shows that 14 males and 9 females aged 60+ years were married in **Newry, Mourne and Down** LGD2014 in 2014. An interactive map of Marriages by age and sex is available to view on NINIS.

Marital Status

On Census day 2011, there were 22,948 people aged 65+ years living in **Newry, Mourne and Down** LGD2014. 10.9% of these were single, 53.5% were married or in a same sex civil partnership and 35.6% were widowed or surviving partner of a same sex civil partnership/separated/divorced or formerly in a same-sex civil partnership which is now legally dissolved.

Sources/Datasets used: Older people and engagement in culture, arts and leisure 2015, DCAL; Marriages by age and sex (administrative geographies), Marriages by age and sex Interactive Map, NISRA Demographic Statistics; Marital and Civil Partnership Status by Age CT0105NI, NISRA Census Office

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Respect and Social Inclusion

The respect and social inclusion of older people depend on more than societal change: factors such as culture, gender, health status and economic status play a large role. The extent to which older people participate in the social, civic and economic life of the community is also closely linked to their experience of inclusion.

Respect

When respondents of the 2014 Northern Ireland Life and Times (NILT) Survey were asked if they think that older people are, on the whole, treated better or worse than people in the general population because of their age, NILT respondents had mixed views. One fifth of people (22%) thought that older people are treated better than others. Similar proportions thought that older people are treated the same as (36%), or worse than (37%), the general population. People aged 75 years or over were the group most likely to think that older people are treated better (28%) than others. Nearly four out of ten respondents (37%) thought that, as they get older, they find that people treat them with more respect. A similar proportion (39%) said that people treated them about the same, whilst around one in five (22%) thought that people treated them with less respect.

Social Inclusion

On Census day 2011, 6,644 households in **Newry, Mourne and Down** LGD2014 were one person households where the resident was aged 65+ years.

AgeNI is the leading charity for older people in Northern Ireland. Age NI has helped build an infrastructure of 11 Networks bringing together older people's groups across NI to strengthen the regional voice of older people and support them to influence important decisions on local policy and services. More information on the 11 sub-regional networks can be found on the AgeNI Website

OFMDFM involved older people and their representative groups in the development and implementation of the Active Ageing Strategy and Action Plan.

The Northern Ireland Pensioners Parliament was launched in 2011 and allows older people from across Northern Ireland to have their say on the issues that matter to them. The parliament reaches out to give older people a chance to make their voice heard on issues that affect them and also provides a vehicle to make older people more aware of key information and practical advice on support services in their own areas, including information on health, benefits, transport and community safety. Over 1,100 NI Pensioners Parliament surveys were completed between January and April 2014. The results of the survey in each county set the agenda for the discussion and expert panels at each local parliament. Almost 500 pensioners attended the seven local parliaments which were held across Northern Ireland between February and April 2014. There was a parliament held in each county and an additional one in Belfast. The host towns and cities for 2014 were Belfast, Enniskillen, Newry, Larne, Craigavon, Magherafelt and Omagh.

The 2014 NI Pensioner Parliament Survey asked respondents to list their top 5 areas of concern. The top concern was keeping warm in winter/energy prices (74.7%), followed by fear of crime (56.3%), food prices (55.7%) access to health & social care (47.6%) and not enough money (35.7%).

Sources/Datasets used: 2014 Northern Ireland Pensioners Parliament Report, Age Sector Platform; AgeNI Sub-Regional Networks, AgeNI

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Civic Participation and Employment

Older people do not stop contributing to their communities on retirement. Many continue to provide unpaid and voluntary work for their families and communities. In some areas, economic circumstances force older people to take paid work long after they should have retired. An age-friendly community provides options for older people to continue to contribute to their communities, through paid employment or voluntary work if they so choose, and to be engaged in the political process.

Civic Participation

Carer's Allowance is a benefit for people who care for someone with a severe disability. 840 males and 1,110 females aged 65+ years living in **Newry, Mourne and Down** LGD2014 claimed Carers Allowance in 2014.

In 2011, 11.5% of those aged 65+ years in **Newry, Mourne and Down** LGD2014 undertook voluntary work without pay. The corresponding figure for those aged 65+ years in **Northern Ireland** was 10.7%.

In 2011, 46.7% of those aged 65+ years in **Newry, Mourne and Down** LGD2014 provided unpaid care. The corresponding figure for those aged 65+ years in **Northern Ireland** was 45.9%.

Training and Employment

In the 2013/14 academic year, there were 75 enrolments aged 60+ years from **Newry, Mourne and Down** LGD2014 at UK Higher Education Institutions. In the same year, there were 340 enrolments for those aged 60+ years from **Newry, Mourne and Down** LGD2014 on a regulated course in Northern Ireland Further Education Institutions.

There were a total of starts on the Steps to Work employment programme in 2014 for participants aged 60+ years in **Newry, Mourne and Down** LGD2014 and there were 21 starts on the Steps to Success employment programme between October and December 2014 for participants aged 60+ years in **Newry, Mourne and Down** LGD2014 on the programme.

Note the Steps 2 Success programme was introduced across Northern Ireland on 20 October 2014. It replaced the Steps to Work programme which stopped taking referrals on 30th May 2014. For further information see the DEL website.

On Census Day 2011, 10.5% (2,400) of those aged 65 + years in **Newry, Mourne and Down** LGD2014 were economically active and 89.5% (20,548) economically inactive. Of those who were economically active , 629 work full-time, 586 work part-time, 1,136 were self-employed and 49 were unemployed.

Of the 1,329 NICS staff who were aged 60+, 115 had a home address of **Newry, Mourne and Down** LGD2014 and 65 worked in a **Newry, Mourne and Down** LGD2014 location.

Qualifications

In **Newry, Mourne and Down** LGD2014 on Census day 2011, there were 22,948 people aged 65+ years. Of these, 15.1% had achieved Level 4 or higher qualifications, while 63.6% had no qualifications. In Northern Ireland, 63.7% of people aged 65+ years had no qualifications.

Benefits

In February 2014, 26,620 people iving in **Newry, Mourne and Down** LGD2014 were claiming retirement pension, 10,950 males aged 65+ and 15,660 females aged 60+. An interactive map showing Retirement Pension data is available to view on NINIS. In the same year 8,860 living in **Newry, Mourne and Down** LGD2014 received pension credit.

Sources/Datasets used: Higher Education Enrolments (administrative geographies), Further Education Regulated Enrolments (administrative geographies), Department for Employment and Learning; Civil Servants aged 60 and over by home and work location (administrative geographies), NISRA HRCS; Carers Allowance Claimants (administrative geographies), Retirement Pension Claimants (administrative geographies), Department for Social Development; Economic Activity by Age by Sex CT0092NI, Highest Level of Qualification by Age CT0104NI; Voluntary Work CT0103NI, Provision of Unpaid Care CT0102NI, NISRA Census Office

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Communication and Information

Staying connected with events and people and getting timely, practical information to manage life and meet personal needs is vital for active ageing.

59.9%

Persons aged 65+ who had never accessed the Internet (2013)

Access to the Internet

Libraries have access to computers and the Internet for free or at very cheap rates. Locational information on libraries is available to view on NINIS. LibrariesNI, in partnership with Business in the Community, NI Direct Digital Inclusion Unit of the Department of Finance and Personnel, hold free annual IT taster sessions for the over 50s in a number of selected libraries across Northern Ireland on Silver Surfers' Day. This covers creating an e-mail account, using e-mail and browsing the internet.

There are 98 libraries in Northern Ireland - 11 of these are located in **Newry, Mourne and Down** LGD2014.

Figures from the Labour Force Survey in 2013, reveal that 59.9% of people aged 65 years and over living in **Newry, Mourne and Down** LGD2014 have never accessed the Interent. This compares to a **Northern Ireland** figure of 65.1%.

Sources/Datasets used: Library Locations, LibrariesNI; Internet Use by age and council area (administrative geographies), NISRA Economic & Labour Market Statistics

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Community and Health Services

Health and support services are vital to maintaining health and independence in the community.

20.1%

Long-term deafness or partial hearing loss: 65+ years (2011)

38.4%

Long-term mobility or dexterity difficulty: 65+ years) (2011)

26.7%

Long-term pain or discomfort: 65+ years (2011)

17.8%

Long-term shortness of breath or difficulty breathing: 65+ years (2011)

Community Care

In **Northern Ireland**, 3,101 people aged 65+ received meals on wheels service in 2014.

In 2014, there were 205 residential homes in **Northern Ireland** and on average there were 1,108 statutory and 3,038 independent places available (does not include residential places in nursing homes).
In 2014, there were 266 nursing homes in **Northern Ireland** and on average there were 19 statutory places, 6,244 independent places and 4,583 dual registered places available (includes dual registered homes but refers to nursing places only).

The number of clients receiving intensive domiciliary care in the **Northern Ireland** in 2014 was 8,177 with 83% of these aged 65 years and over.
Note: Intensive domiciliary is defined as 6 or more visits and more than 10 contact hours, as recorded during the survey week.

Health Services

In 2014/15 there were 181,808 people registered with a GP Practice (QOF Framework) in **Newry, Mourne and Down** LGD2014. The list size for those aged 50+ years in **Newry, Mourne and Down** LGD2014 was 57,295.

Some of the Quality and Outcomes Framework (QOF) registers are for diseases that tend to affect an older population. There were 1,114 people on the Dementia Register (all ages) and 366 people on the Osteoporosis Register (aged 50+ years) living in **Newry, Mourne and Down** LGD2014.

Locational data on GP surgeries, Dentists, Opticians and fitness centres is available to view on NINIS.

General Health

On Census Day 2011, there were 22,948 people aged 65+ years living in **Newry, Mourne and Down** LGD2014. 46.7% stated they had very good or good health, 39.8% had fair health and the remaining 13.5% had bad or very bad health.

16,173 (70.5%) of those aged 65+ years were living with a long-term health condition:

- 4,624 (20.1%) had deafness or partial hearing loss
- 1,641 (7.2%) had blindness or partial sight loss
- 843 (3.7%) had a communication difficulty
- 8,816 (38.4%) had a mobility or dexterity difficulty
- 290 (1.3%) had a learning, intellectual, social or behavioural difficulty
- 1,343 (5.9%) had an emotional, pychological or mental health condition
- 6,127 (26.7%) had long-term pain or discomfort
- 4,078 (17.8%) had shortness of breath or difficulty breathing
- 1,695 (7.4%) had frequent periods of confusion or memory loss
- 4,842 (21.1%) had a chronic illness
- 2,344 (10.2%) had other conditions

Note - Percentages may not sum to 100% as a person may have more than one condition.

Of the 21,964 people aged 65+ years living in households in **Newry, Mourne and Down** LGD2014, 33.9% said that their day-to-day activites were limited a lot, 24.0% a little and 42.1% were not limited.

Health Survey

- The 2013/14 Health Survey for Northern Ireland revealed that 43% of those aged 65-74 in **Northern Ireland** were overweight, a further 28% were obese and 3% were morbidly obese. For those aged 75+ years, 39% were overweight, a further 22% were obese, and 1% were morbidly obese.
- Over half (53%) of respondents aged 65-74 years in **Northern Ireland** undertook less than 30 mins of exercise per day. This rose to almost three quarters (74%) of those aged 75+ years.
- 16% of males and 8% of females aged 65-74 years in **Northern Ireland** drank above recommended weekly limits. For those aged 75 and over 11% of males and 3% of females drank above recommended weekly limits.
- 17% of males and 12% of females aged 60+ years in **Northern Ireland** were smokers.

Proximity to Services

The Northern Ireland Deprivation Measure 2010 Proximity to Services Domain - the purpose of this domain is to measure the extent to which people have poor geographical access to key services, including statutory and general services. The average time in minutes to travel to a service from a given Output Area was calculated and results are available on NINIS. The summary table below shows that the maximum time to travel to a service from an Output Area was between three and 10 minutes for key health services.

Within **Newry, Mourne and Down** LGD2014 the most deprived Output Area (OA) based on the proximity to services domain measure is

95NN130005 within Dunmore SOA (ranked 42 out of 5,022 in NI) and the least deprived Output Area is 95VV100008 within Daisy Hill 2 SOA (ranked 5018 out of 5,022 in NI).

**1 is the most deprived OA in Nothern Ireland and 5,022 the least deprived.*

Travel Time to:	Max travel time for Output Areas within Newry, Mourne and Down LGD2014 (minutes)	Min travel time for Output Areas Newry, Mourne and Down LGD2014 (minutes)
GP premises	10.76	0.18
Accident and Emergency hospital	45.67	0.29
Dentist	13.72	0.19
Pharmacist	10.78	0.13
Optician	16.16	0.21

Health Related Benefits

There were 4,850 Attendance Allowance recipients aged 65+ years in **Newry, Mourne and Down** LGD2014 in 2014. Attendance Allowance is a tax-free benefit paid to people, aged 65+ years, who need help with their personal care because of an illness or disability. An interactive map showing Attendance Allowance data is available to view on NINIS.

Of the 19,450 Disability Living Allowance recipients in **Newry, Mourne and Down** LGD2014, 2780 were male and 3190 were female. An interactive map showing Disability Living Allowance data is available to view on NINIS.

Sources/Datasets used: Meals Service (administrative geographies), Intensive Domicilliary Care Clients (administrative geographies), Residential Accomodation (administrative geographies), Nursing Accomodation (administrative geographies), Disease Prevalance (Quality Outcomes Framework) (administrative geographies), Health Survey 2013/14, DHSSPS; Northern Ireland Multiple Deprivation Measure 2010 Output Areas, NISRA Demographic Statistics; Attendance Allowance Recipients (administrative geographies), Attendance Allowance Interactive Map, Disability Living Allowance Recipients (administrative geographies), Disability Living Allowance Interactive Map, Department for Social Development; Type of Long-Term Condition by Age CT0111NI, Type of Long-Term Condition CT0100NI, General Health by Age: CT0101NI, NISRA Census

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Profile last updated September 2015

Making Life Better Profile for the Newry, Mourne And Down Local Government District

"Making Life Better" is the strategic framework for public health. It is designed to provide direction for policies and actions to improve the health and wellbeing of people in Northern Ireland and to reduce inequalities in health.

It builds on the former public health strategy "Investing for Health" and takes account of consultation feedback on the draft framework "Fit and Well – Changing Lives" and a number of other key reports and evidence.

This page provides information on the health and wellbeing of residents in the **Newry, Mourne And Down** Local Government District. Click on the blue tabs at the top to see area profiles for other geographical levels. Health and wellbeing indicators have been grouped according to the Making Life Better Framework's Themes, with **Headline Indicators in Green** and **other relevant data in Blue**.

Further information can be found within the Making Life Better Strategic Framework Document and the First Progress Report 2014/15, published by the Department of Health (DoH). Further information and statistics on health inequalities in Northern Ireland can be found on the DoH website.

Further information is available on the defintions of the data used in this area profile.

Click on theme titles below to obtain an area profile for that subject. The datasets used are shown below each section.

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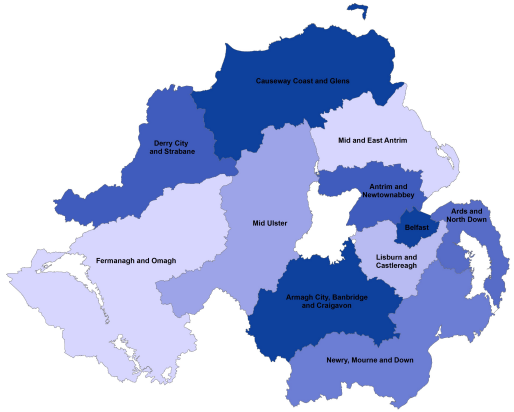

Demographic Profile

The estimated population of **Newry, Mourne And Down** LGD at 30 June 2015 was **176,369**, which accounts for **9.5%** of the Northern Ireland Population. Within **Newry, Mourne And Down** LGD, **22.5%** were aged under 16 years and **14.7%** were aged 65 and over.

Between 2005 and 2015 the population of **Newry, Mourne And Down** LGD increased by **15,916** people or **9.9%**.

Newry, Mourne And Down (LGD), 2015

	Age									
	0-4	5-10	11-15	16-25	26-39	40-64	65-74	75-84	85+	All
Population	12,883	15,270	11,581	22,639	32,202	55,933	14,547	8,268	3,046	176,369
% of Population	7.3	8.7	6.6	12.8	18.3	31.7	8.2	4.7	1.7	100

Northern Ireland, 2015

	Age									
	0-4	5-10	11-15	16-25	26-39	40-64	65-74	75-84	85+	All
Population	125,316	147,599	112,285	242,541	340,575	591,481	162,619	93,745	35,460	1,851,621
% of Population	6.8	8.0	6.1	13.1	18.4	31.9	8.8	5.1	1.9	100

Newry, Mourne And Down (LGD) - Age Breakdown, 2005-2015

	Age									
	0-4	5-10	11-15	16-25	26-39	40-64	65-74	75-84	85+	All
2005	11,352	14,663	12,847	22,806	31,388	47,506	11,055	6,795	2,041	160,453
2006	11,472	14,480	12,788	23,234	31,630	48,870	11,238	6,863	2,148	162,723
2007	11,783	14,415	12,701	23,901	32,068	50,151	11,434	6,928	2,253	165,634
2008	12,170	14,258	12,685	24,224	32,198	51,287	11,783	6,998	2,416	168,019
2009	12,439	14,088	12,749	24,155	32,224	52,203	12,147	7,119	2,528	169,652
2010	12,754	13,944	12,696	23,993	32,191	53,090	12,555	7,298	2,598	171,119
2011	13,005	13,832	12,475	23,775	32,094	53,950	12,895	7,514	2,736	172,276
2012	13,097	14,045	12,295	23,689	32,116	54,620	13,240	7,753	2,836	173,691
2013	13,050	14,459	12,008	23,565	32,080	55,146	13,738	7,913	2,870	174,829
2014	12,983	14,818	11,801	23,020	32,033	55,557	14,178	8,059	2,954	175,403
2015	12,883	15,270	11,581	22,639	32,202	55,933	14,547	8,268	3,046	176,369
2014-2015 Population Change %	-0.8	3.1	-1.9	-1.7	0.5	0.7	2.6	2.6	3.1	0.6
2005-2015 Population Change %	13.5	4.1	-9.9	-0.7	2.6	17.7	31.6	21.7	49.2	9.9

Population Projections

The population of **Newry, Mourne And Down** LGD is projected to increase to **191,833** by mid 2025.

Newry, Mourne And Down (LGD) - Age Breakdown, 2025

	Age									
	0-4	5-10	11-15	16-25	26-39	40-64	65-74	75-84	85+	All
Population	12,844	15,798	13,282	22,318	33,689	59,287	17,984	11,619	5,012	191,833
% of Population	6.7	8.2	6.9	11.6	17.6	30.9	9.4	6.1	2.6	100

Datasets used: Population Estimates - Making Life Better Age Groups (administrative geographies), Population Projections - Making Life Better Age Groups (administrative geographies), NISRA Demographic Statistics

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Key Overarching Indicators

Average life expectancy measures the expected years of life at birth based on the mortality rates of the period in question.

- Life expectancy for males in Northern Ireland for 2010-2012 was **77.7** years, and for females is **82.1** years. Life expectancy for males in **Newry, Mourne And Down** LGD for 2010-2012 was **78.0** years, and for females is **82.3** years.
- Healthy life expectancy for males in Northern Ireland for 2010-2012 was **58.6** years, and for females was **61.6** years. Healthy life expectancy is not currently available at LGD.
- Disability-free life expectancy for males in Northern Ireland for 2010-2012 was **60.2** years, and for females was **60.8** years. Disability-free life expectancy is not currently available at LGD.

	Newry, Mourne And Down LGD					NI
	2006-2008	2007-2009	2008-2010	2009-2011	2010-2012	2010-2012
Life Expectancy - Males	76.7	77.5	77.5	78.0	78.0	77.7
Life Expectancy - Females	80.6	81.2	81.5	82.1	82.3	82.1

	Newry, Mourne And Down LGD					NI
	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012	2008-2012
Standardised Death Rate - All causes	1,191.0	1,151.9	1,128.0	1,078.2	1,065.1	1,089.6
Standardised Death Rate - Amenable	157.8	149.0	140.5	132.0	121.7	126.8
Standardised Death Rate - Preventable	250.1	241.6	236.0	224.0	212.1	222.3
Standardised Death Rate - Avoidable	301.0	291.0	283.3	270.2	256.1	267.8

	Newry, Mourne And Down LGD					NI
	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012	2008-2012
Standardised Cancer Death Rate	308.3	301.6	296.4	293.3	289.8	291.6
Standardised Circulatory Death Rate	416.3	388.2	380.9	350.0	334.2	334.0
Standardised Respiratory Death Rate	161.3	153.9	148.1	143.1	141.7	156.4

	Newry, Mourne And Down LGD					NI
	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012	2008-2012
Potential Years of Life Lost - Males	10.7	10.1	10.4	10.2	10.3	10.7
Potential Years of Life Lost - Females	8.5	8.1	7.9	7.5	7.1	7.3

	Newry, Mourne And Down LGD								NI
	2008	2009	2010	2011	2012	2013	2014	2015	2015
No. of Deaths	1,292	1,169	1,267	1,190	1,276	1,313	1,318	1,332	15,548

	Newry, Mourne And Down LGD								NI
	2008	2009	2010	2011	2012	2013	2014	2015	2015
No. of Deaths	1,292	1,169	1,267	1,190	1,276	1,313	1,318	1,332	15,548
Deaths due to Malignant Neoplasms (%)	26.2	27.5	27.5	30.8	28.8	28.6	30.7	28.8	28.0
Deaths due to Circulatory Diseases (%)	32.1	29.0	32.8	27.8	28.4	25.3	24.0	23.3	24.3
Deaths due to Respiratory Diseases (%)	12.3	12.8	11.5	12.2	13.3	13.9	11.5	12.5	14.4
Deaths due to External Causes (%)	7.1	5.8	6.2	5.4	5.8	5.5	5.7	5.2	5.0
Deaths due to Suicide (%)	2.2	1.4	2.4	1.7	1.7	2.3	2.4	2.1	2.0

Datasets used: Life Expectancy (administrative geographies), European Age Standardised Death Rate (administrative geographies), Standardised Death Rate Amenable (administrative geographies), Standardised Death Rate Avoidable (administrative geographies), Standardised Death Rate Preventable (administrative geographies), Standardised Cancer Death Rate (administrative geographies), Standardised Circulatory Death Rate (administrative geographies), Standardised Respiratory Death Rate (administrative geographies), Potential Years Life Lost (administrative geographies), DoH; Deaths (administrative geographies), Deaths by Cause (administrative geographies) NISRA Demographic Statistics

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Theme 1: Giving Every Child the Best Start

Key long term outcomes:
- Good quality parenting and family support
- Health and confident children and young people
- Children and young people skilled for life

- The infant mortality rate is the number of children dying before their first birthday per 1,000 live births. Over the period 2009-2013, the infant mortality rate in **Newry, Mourne And Down** LGD was **4.8** compared with **4.7** in Northern Ireland.
- In 2014, **12.4%** of expectant mothers in **Newry, Mourne And Down** LGD smoked during pregnancy compared to **15.0**% in Northern Ireland.
- In 2014, **46.5%** of mothers in **Newry, Mourne And Down** LGD discharged from hospital were breastfeeding, including those partially breastfeeding and those breastfeeding only. This compared with **46.4%** overall in Northern Ireland.
- In 2012/13 Academic Year, **80.9%** of primary pupils in **Newry, Mourne And Down** LGD achieved level 4 or above in Communication in English, while **81.1%** achieved level 4 or above in Mathematics. The comparative figures for Northern Ireland are **77.1%** achieved level 4 or above in Communication in English and **78.5%** achieving level 4 or above in Mathematics.
- In 2014/15 Academic Year, **69.2%** of school leavers in **Newry, Mourne And Down** LGD achieved at least 5 GCSEs at A*-C or equivalent, including GCSE English and Maths. This compared with **66.0%** overall in Northern Ireland.

	Newry, Mourne And Down LGD						NI
	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012	2009-2013	2009-2013
Infant Mortality Rate	5.9	5.2	5.8	5.5	5.3	4.8	4.7

	Newry, Mourne And Down LGD						NI
	2009	2010	2011	2012	2013	2014	2014
Smoking During Pregnancy (%)	16.9	15.2	14.7	14.2	13.1	12.4	15.0
Breast feeding on discharge (%)	44.5	46.9	45.0	44.1	45.2	46.5	46.4

	Newry, Mourne And Down LGD			NI
Academic Year	2012/13	2013/14	2014/15	2014/15
School Leavers achieving at least 5 GCSE at A*-C inc. English and Maths (%)	65.3	65.1	69.2	66.0

	Newry, Mourne And Down LGD								NI
	2008	2009	2010	2011	2012	2013	2014	2015	2015
No. of Births	2,613	2,579	2,588	2,514	2,594	2,476	2,547	2,509	24,215
Birth Rate (per 1,000 females aged 15-44)	73.6	72.5	72.9	71.1	73.6	70.6	73.2	72.8	66.0
Childhood Deaths (age 1-15)	6	8	6	4	3	3	7	3	39

	Newry, Mourne And Down LGD							NI
	2008	2009	2010	2011	2012	2013	2014	2014
No. of Births	2,613	2,579	2,588	2,514	2,594	2,476	2,547	24,394
Teenage birth rate (under 17 per 1,000 females aged 13-16)	2.8	2.0	1.6	0.6	1.0	-	-	-
Still Birth Rate (per 1,000 live and still births)	3.8	4.6	5.4	4.4	3.5	3.6	2.0	3.3
Infant Death Rate (per 1,000 live births)	4.7	3.8	7.5	4.7	3.3	2.8	3.8	4.8

- In 2016, **30.7%** of children aged 0-2 years in **Newry, Mourne And Down** LGD were registered with a dentist. The comparative figure for Northern Ireland was **29.0%**.

- In 2016, **74.5%** of children aged 3-5 years in **Newry, Mourne And Down** LGD were registered with a dentist. The comparative figure for Northern Ireland was **73.9%**.

	Newry, Mourne And Down LGD				NI
Financial Year	2010/11	2011/12	2012/13	2013/14	2013/14
Hospital Admissions due to Accidents (0-4 years)	116	118	109	141	1,270

Hospital Admissions due to Accidents (5-15 years)	173	185	131	133	1,479

Datasets used: Infant Mortality Rate (administrative geographies), Smoking During Pregnancy (administrative geographies), Breastfeeding on Discharge (administrative geographies), Teenage Birth Rate for Mothers under the age of 17 (administrative geographies), Dental and GP Registrations (administrative geographies), Hospital Admissions due to Accidents (administrative geographies), DoH; Key Stage 2 Assessment Results (administrative geographies), School Leavers (administrative geographies), DE; Births (administrative geographies), Infant Deaths and Still Births (administrative geographies), Deaths by Cause and Age: 1-15 years (administrative geographies), NISRA Demographic Statistics

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Theme 2: Equipped Throughout Life

Key long term outcomes:
Ready for adult life
Employment, life-long learning and participation
Healthy active ageing

- The Labour Force Survey shows that in 2015, the long-term unemployment rate for Northern Ireland was **57.6%***.
- In quarter ending September 2016, **13.8%** of 16 to 24 year olds in Northern Ireland were not in employment, full-time education or training (NEETs)*.

**A geographical breakdown is not available for these indicators.*

	Newry, Mourne And Down LGD							NI
	2009	2010	2011	2012	2013	2014	2015	2015
Claimant Count Annual Average (%)	4.3	5.3	5.6	5.6	5.4	4.6	3.4	3.7
Claimant Count Annual Average 18-24 years (%)	8.9	10.6	11.0	10.4	9.3	7.5	6.0	6.5
Claimant Count Long Term Unemployed Annual Average (%)	14.4	27.5	30.2	30.1	32.8	36.8	36.9	37.0

	Newry, Mourne And Down LGD			NI
Academic Year	2012/13	2013/14	2014/15	2014/15
Achieved at least 5 GCSEs A*-C (%)	79.5	77.2	80.2	81.1
Achieved at least 5 GCSE A*-C inc. Maths and English (%)	65.3	65.1	69.2	66.0

Destination School Leavers - Higher Education (%)	46.4	42.8	45.7	42.3
Destination School Leavers - Further Education (%)	30.4	34.7	34.7	35.0
Destination School Leavers - Employment (%)	7.3	7.8	6.7	8.4
Destination School Leavers - Training (%)	13.4	11.5	10.0	9.8
Destination School Leavers - Unemployment/ Unknown (%)	2.4	3.3	2.9	4.5

- In 2016, **58.3%** of adults aged 18+ years in **Newry, Mourne And Down** LGD were registered with a dentist. The comparative figure for Northern Ireland was **56.7%**.

	Newry, Mourne And Down LGD			NI
Academic Year	2012/13	2013/14	2014/15	2014/15
HE Enrolments	6,310	6,405	6,375	63,965
FE Enrolments	18,525	16,197	15,755	140,137

- In the 2014/15 academic year, there were **90** higher education and **277** further education enrolments for people aged 60+ years living in **Newry, Mourne And Down** LGD.

	Newry, Mourne And Down LGD			NI
	2014	2015	2016	2016
Patients on the Dementia Register	1,134	1,114	1,180	13,617
Dementia Register: per 1,000 patients	6.3	6.1	6.4	7.0

Datasets used: School Leavers (administrative geographies), DE; Labour Force Survey, Claimant Count Annual Averages (administrative geographies), Claimant Count Long term Unemployed Annual Averages (administrative geographies), Claimant Count Annual Averages 18-24 years (administrative geographies), NISRA Economic & Labour Market Statistics ; Dental and GP Registrations (administrative geographies), Disease Prevalence (Quality Outcomes Framework) (administrative geographies), DoH; Further Education Regulated Enrolments (administrative geographies), Higher Education Enrolments (administrative geographies), DfE

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Theme 3: Empowering Healthy Living

Key long term outcomes:
Improved health and reduction in harm
Improved mental health and wellbeing, and reduction in self harm and suicide
People are better informed about health matters
Prevention embedded in services

- In 2015/16, of those adults surveyed in the Northern Ireland Health Survey, **22%** of those living in Northern Ireland were smokers. A comparative figure for LGD is not available.
- In 2011/12-2013/14, the standardised rate for alcohol-related admissions in **Newry, Mourne And Down** LGD was **486.4** per 100,000 population (Northern Ireland - **694.0** per 100,000 population).
- In 2013/14, of those adults surveyed in the Northern Ireland Health Survey, **16%** of those living in Northern Ireland drink above the recommended sensible drinking guideline. A comparative figure for LGD is not available.
- In 2012, the teenage birth rate for mothers aged under 17 years in **Newry, Mourne And Down** LGD was **1.0** live births per 1,000 females. The comparitive figure for Nothern Ireland was **2.3**.
- In 2015/16, of those adults surveyed in the Northern Ireland Health Survey, **26%** of those living in Northern Ireland were classified as obese (BMI of 30kg/m2 or above). A comparative figure for LGD is not available.
- In 2015/16, of those children surveyed in the Northern Ireland Health Survey, **9%** of those living in Northern Ireland were classified as obese (based on guidelines put forward by International Obesity Task Force).
- In 2013/14, of those adults surveyed in the Northern Ireland Health Survey, the mean Warwick-Edinburgh Mental Wellbeing score was **51.0** in Northern Ireland. The scale scores range from 14 (lowest mental well-being) to 70 (highest mental well-being). A comparative figure for LGD is not available.
- For the period 2011-2013, the crude suicide rate in **Newry, Mourne And Down** LGD was **13.7** suicides per 100,000 population (Northern Ireland: **15.9** suicides per 100,000 population).
- Figures from the 2016 Quality and Outcomes Framework (QOF) reported that the percentage of GP registered patients with established hypertension was **13.1%** in **Newry, Mourne And Down** LGD. This compares with **13.3%** in Northern Ireland.
- An audit showed that in 2014/15 there were **13,069** attendances at structured patient education/self managment programmes in **Northern Ireland.** A comparative figure for LGD is not available.

	Newry, Mourne And Down LGD					NI
	2008	2009	2010	2011	2012	2012
Teenage Birth Rate (under 17 per 1,000 females aged 13-16)	2.8	2.0	1.6	0.6	1.0	2.3

	Newry, Mourne And Down LGD			NI
	2014	2015	2016	2016
Patients on the Hypertension Register	22,995	23,546	24,050	260,032
GP Registered Patients with Established hypertension (%)	12.7	13.0	13.1	13.3

	Newry, Mourne And Down LGD						NI
Financial Year	2006/07 - 2008/09	2007/08 - 2009/10	2008/09 - 2010/11	2009/10 - 2011/12	2010/11 - 2012/13	2011/12 - 2013/14	2011/12 - 2013/14
Standardised Alcohol related Admissions	679.6	685.7	679.4	667.4	698.9	486.4	694.0

	Newry, Mourne And Down LGD						NI
	2006/08	2007/09	2008/10	2009/11	2010/12	2011/13	2011/13
Crude Suicide Rate	16.8	13.9	14.8	12.9	13.8	13.7	15.9

	Newry, Mourne And Down LGD			NI
	2014	2015	2016	2016
Patients on the Chronic Obstructive Pulmonary Disease (COPD) Register	2,685	2,817	2,940	38,530
COPD Prevalence per 1,000 patients	14.9	15.5	16.0	19.7
Patients on the Diabetes Register	7,092	7,356	7,646	88,305
Diabetes Prevalence per 1,000 patients (17+ years)	50.9	52.3	53.8	57.4

	Newry, Mourne And Down LGD	NI
Financial Year	2014/15	2014/15
Smoking Cessation - Successfully quit at 4 weeks (%)	59.1	58.5

	Newry, Mourne And Down LGD					NI
Financial Year	2008/09	2009/10	2010/11	2011/12	2012/13	2012/13
Standardised Admission Rate for All Hospital Admissions (Male)*	37,305.7	37,120.7	37,429.8	39,050.3	39,396.9	39,094.1
Standardised Admission Rate for All Hospital Admissions (Female)*	35,592.3	34,649.1	33,440.1	34,666.8	34,974.5	35,530.2
Standardised Admission Rate for Emergency Hospital Admissions (Male)*	10,577.6	10,321.4	10,307.1	10,086.8	10,395.2	10,010.8
Standardised Admission Rate for Emergency Hospital Admissions (Female)*	9,405.3	9,160.5	8,750.1	8,379.9	8,752.5	8,726.1

	Newry, Mourne And Down LGD					NI
Financial Year	2006/07-2008/09	2007/08-2009/10	2008/09-2010/11	2009/10-2011/12	2010/11-2012/13	2010/11-2012/13
Standardised Admission Rate due to Circulatory Disease (Male)*	3,420.4	3,362.9	3,286.6	3,065.0	3,116.3	2,970.0
Standardised Admission Rate due to Circulatory Disease (Female)*	1,948.2	1,889.9	1,849.8	1,804.6	1,813.4	1,799.7
Standardised Admission Rate Rate due to Respiratory Disease (Male)*	2,170.0	2,084.1	2,081.5	2,083.6	2,227.6	2,083.7
Standardised Admission Rate due to Respiratory Disease (Female)*	1,819.5	1,781.3	1,820.5	1,807.1	1,870.3	1,724.5

*Please note: LGD2014 figures presented in the datasets marked with * above have been revised as of November 2016 due to a number of errors identified.*

NI

	Newry, Mourne And Down LGD								2015
	2008	2009	2010	2011	2012	2013	2014	2015	15,548
No. of Deaths	1,292	1,169	1,267	1,190	1,276	1,313	1,318	1,332	

	Newry, Mourne And Down LGD								NI
	2008	2009	2010	2011	2012	2013	2014	2015	2015
Deaths	1,292	1,169	1,267	1,190	1,276	1,313	1,318	1,332	15,548
Deaths due to Malignant Neoplasms	338	322	349	367	368	375	404	383	4,361
Deaths due to Circulatory Diseases	415	339	415	331	362	332	316	310	3,773
Deaths due to Respiratory Diseases	159	150	146	145	170	183	151	166	2,236
Deaths due to External Causes	92	68	79	64	74	72	75	69	784
Deaths from Suicide and Undetermined Intent	29	16	30	20	22	30	32	28	318

	Newry, Mourne And Down LGD						NI
Financial Year	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2015/16
Organ Donor Register (ODR) Registrations	49,646	53,104	56,050	59,217	62,975	68,874	678,979

Datasets used: Smoking Prevalence - Health Survey (administrative geographies), Drinking Prevalence - Health Survey (administrative geographies), BMI Levels - Health Survey (administrative geographies), Mental Health - Health Survey (administrative geographies), Teenage Birth Rate for Mothers under the age of 17 (administrative geographies), Disease Prevalence (Quality Outcomes Framework) (administrative geographies), Smoking cessation Services (administrative geographies), Standardised Rate for Alcohol Related Admissions (administrative geographies), Crude Suicide Rate (administrative geographies), Standardised Admission Rate for All Hospital Admissions (administrative geographies), Standardised Admission Rate for Emergency Hospital Admissions (administrative geographies), Standardised Admission Rate due to Circulatory Disease (administrative geographies), Standardised Admission Rate due to Respiratory Disease (administrative geographies), DoH; Deaths by Cause (administrative geographies), NISRA Demographic Statistics; Organ Donor Register Registrations (administrative geographies), NHS Blood and Transplant

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Theme 4: Creating the Conditions

Key long term outcomes:
A decent standard of living
Making the most of the physical environment
Safe and healthy homes

- In 2014/15, the Public Health Agency Resource Outurn was **£98.8** million for Northern Ireland.
- In 2012/13-2014/15, **24.3%** of the population were in relative poverty (before housing costs) in **Newry, Mourne And Down** LGD, compared with **20.4%** in **Northern Ireland**.
- In 2012/13-2014/15, **26.4%** of children were in relative poverty (before housing costs) in **Newry, Mourne And Down** LGD, compared with **22.8%** in **Northern Ireland**.
- In 2015, the economic inactivity rate in Northern Ireland was **27.1%**.
- In 2011, the Non decency Rate of Social Housing Dwellings in Northern Ireland was **3.7%**.
- In 2013 The overall Water Utility Sector WWTW for Northern Ireland had a **92%** compliance with numeric standards.
- The mean zonal compliance with Northern Ireland water regulations drinking water standards stood at **99.81%** in 2013.

	Newry, Mourne And Down LGD									NI
Financial year	2004/05-2006/07	2005/06-2007/08	2006/07-2008/09	2007/08-2009/10	2008/09-2010/11	2009/10-2011/12	2010/11-2012/13	2011/12-2013/14	2012/13-2014/15	2012/13-2014/15
Population in relative poverty (before housing costs) %	22.1	18.4	17.8	21.8	22.2	23.6	23.5	24.9	24.3	20.4
Children in relative poverty (before housing costs) %	28.9	24.3	22.8	29.0	27.9	28.2	26.9	27.1	26.4	22.8

	Newry, Mourne And Down LGD			NI
	2014	2015	2016	2016
Carers Allowance Claimants	6,850	7,190	7,540	69,960
Jobseekers Allowance Claimants	5,340	4,010	3,190	38,090
Employment & Support Allowance Claimants	9,200	11,050	11,380	120,100
Pension Credit Claimants	8,860	8,620	8,180	81,570

Disability Living Allowance Recipients	19,390	20,040	20,640	209,280

	Newry, Mourne And Down LGD		NI
	2014	2015	2015
Redundancies Confirmed	146	133	1,946

Datasets used: Making Life Better Framework Document, DoH; Economic Activity and Qualifications (administrative geographies), DfE; Poverty: Grouped Years (administrative geographies), Carers Allowance Claimants (administrative geographies), Jobseekers Allowance Claimants (administrative geographies), Employment and Support Allowance Claimants (administrative geographies), Disability Living Allowance Recipients (administrative geographies), Pension Credit Claimants (administrative geographies), DfC; Redundancies Confirmed (administrative geographies), NISRA ELMS

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Theme 5: Empowering Communities

Key long term outcomes:
- Thriving communities
- Safe communities
- Safe and healthy workplaces

- **32%** of respondents to the 2015 NI Omnibus Survey in Northern Ireland stated that they had volunteered in the past year.
- In 2015, there were **88** casualties (killed or seriously injured) as a result of road traffic collisions in **Newry, Mourne And Down** LGD.

	Newry, Mourne And Down LGD			NI
	2013	2014	2015	2015
RTC - Killed or Seriously Injured	72	109	88	785

	Newry, Mourne And Down LGD										NI
Financial Year	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2014/15
Recorded Crime Offences	9,087	10,198	10,202	9,532	9,602	9,918	9,327	8,413	7,941	8,836	8,699	105,072
Offences with a Domestic Abuse Motivation	421	912	800	619	732	863	791	846	904	1,090	1,183	13,426
Offences with a Homophobic Motivation	-	7	6	4	4	10	6	10	15	17	28	209
Offences with a Sectarian Motivation	-	42	47	28	48	39	35	30	48	26	35	1,043

Offences with a Racist Motivation	-	39	55	22	33	52	41	22	19	27	32	921
Anti-social behaviour Incidents	-	-	7,745	8,110	6,680	5,849	5,433	4,333	4,354	4,282	4,560	60,982

	Newry, Mourne And Down LGD			NI
	2013	2014	2015	2015
RTC Collisions	541	565	549	6,147
RTC Seriously Injured	69	94	80	711
RTC Deaths	3	15	8	74

Datasets used: Road Traffic Collision Casualties by Severity of Injury (administrative geographies), Recorded Crime (administrative geographies), Domestic Abuse Offences (administrative geographies), Hate Crime Offences (administrative geographies), Anti-Social Behaviour Incidents (administrative geographies), PSNI

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Theme 6: Developing Collaboration

Key long term outcomes:
- A strategic approach to Public Health
- Strengthened collaboration for health and wellbeing

No high level indicators have been identified at this stage for the theme 'Developing Collaboration'. This theme addresses the need for strengthened collaboration and co-ordination across all levels of society through a 'whole system approach'. Progress in the other indicators will provide some measure of the effectiveness of collaboration for health, however this set of indicators may need to be expanded as work progresses to monitor specific aspects of the framework or its impact. Monitoring will also be developed at local levels.

Further information can be found within the Making Life Better Strategic Framework Document and the Key Indicators and Baseline Report

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Profile last updated January 2017

APPENDIX 3

Primary Care Data for Newry / Mourne Integrated Care Partnership Area

Health and Social Care Board

Population profile based on Primary Care data for Newry/Mourne ICP Area

July 2017
Version 1.1

2015/16 Primary Care Data Extract

Reference date for disease registers 30 September 2015.

Data extracted March 2016.

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Acknowledgement

The clinical informatics team offer our gratitude to the GP practices in Northern Ireland that provided pseudonymised data. Without the contribution of those practices it would not have been possible to produce this report.

Contents

Table of Figures

Glossary

AF	Atrial fibrillation
BSO	Business Services Organisation
CKD	Chronic kidney disease
COPD	Chronic obstructive pulmonary disease
ECS	Emergency care summary
ICP	Integrated Care Partnership
Incidence	The number of new cases in a population during a given time frame
LCG	Local Commissioning Group
NILES	Northern Ireland Local Enhanced Service
PAD	Peripheral arterial disease
PCAS	Payment Calculation and Analysis System
Prevalence	The total number of cases in a population at a point in time
QOF	Quality and Outcomes Framework
RA	Rheumatoid arthritis
SLCG	Southern Local Commissioning Group
TIA	Transient ischaemic attack

Introduction

This report is based on de-identified data shared between GP practices and the HSCB.
A data sharing agreement was put in place between HSCB and each practice to cover processing of the de-identified data to produce risk stratified lists for GP Practices and subsequent processing to inform commissioning processes. This report is the key output of the latter.

There are 26 GP Practices in Newry/Mourne ICP. All of these practices participated in providing data, the number of patients registered with GP practices in Newry and Mourne ICP was 118,801

Newry/Mourne Integrated Care Partnership

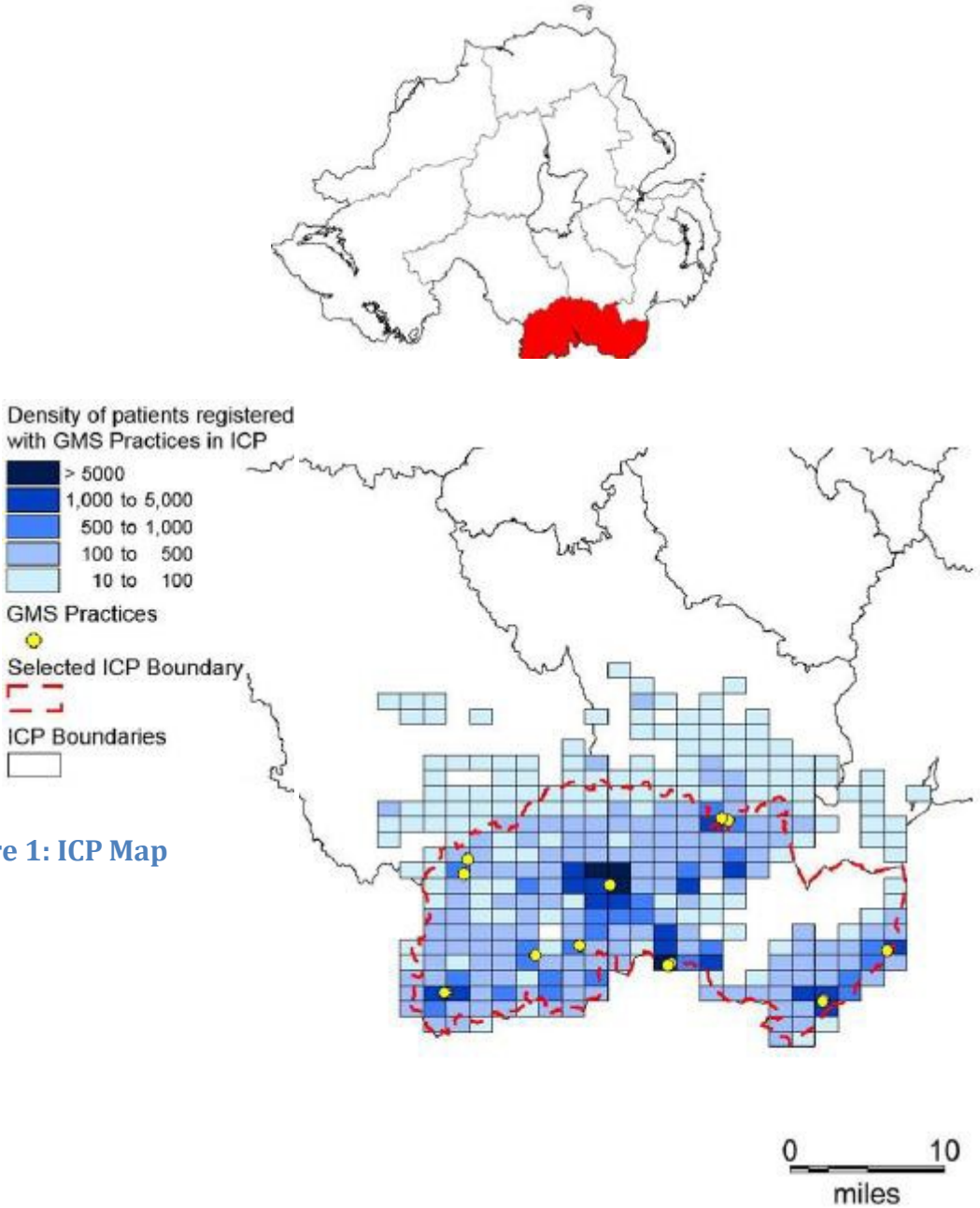


Figure 1: ICP Map

Newry and Mourne ICP area Analysis

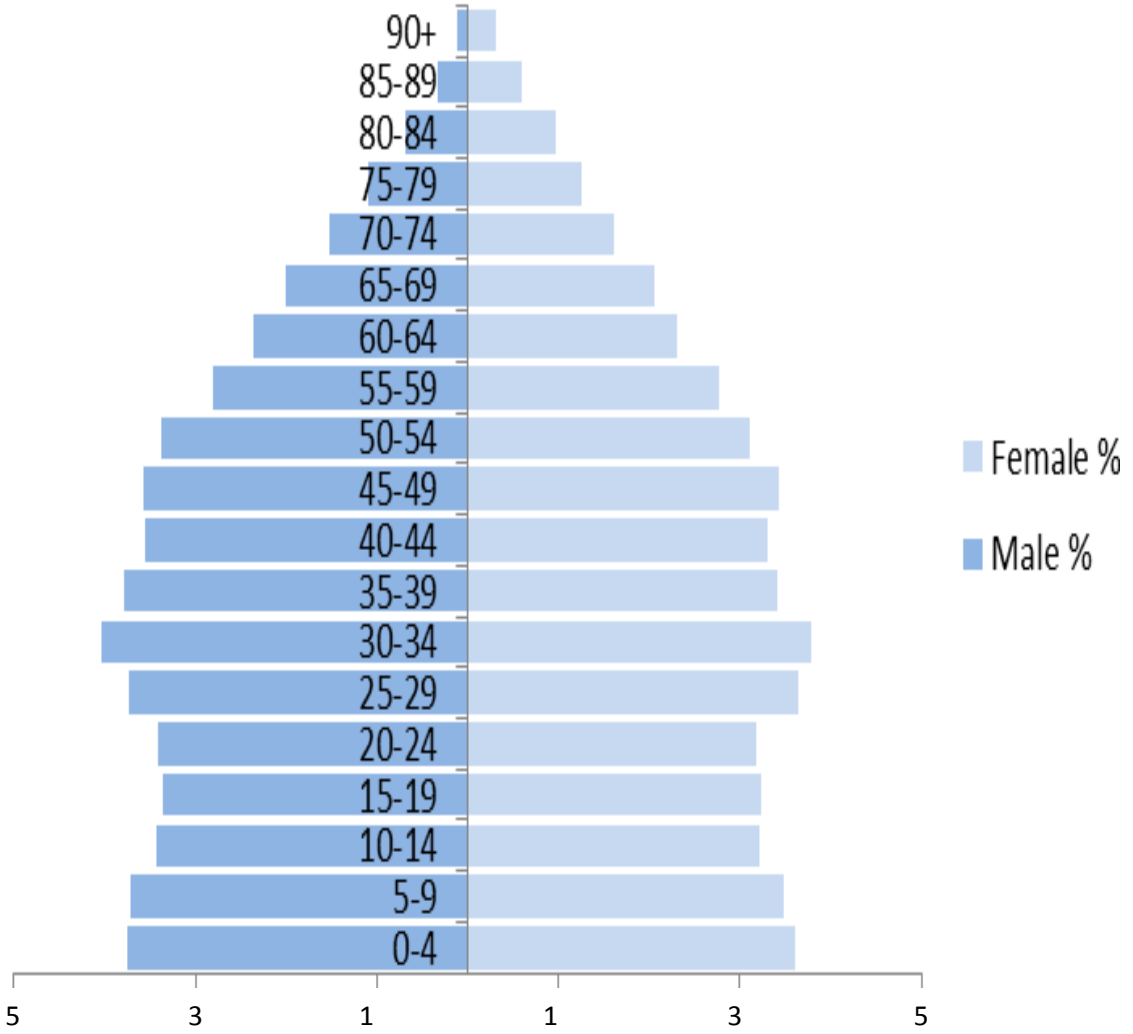
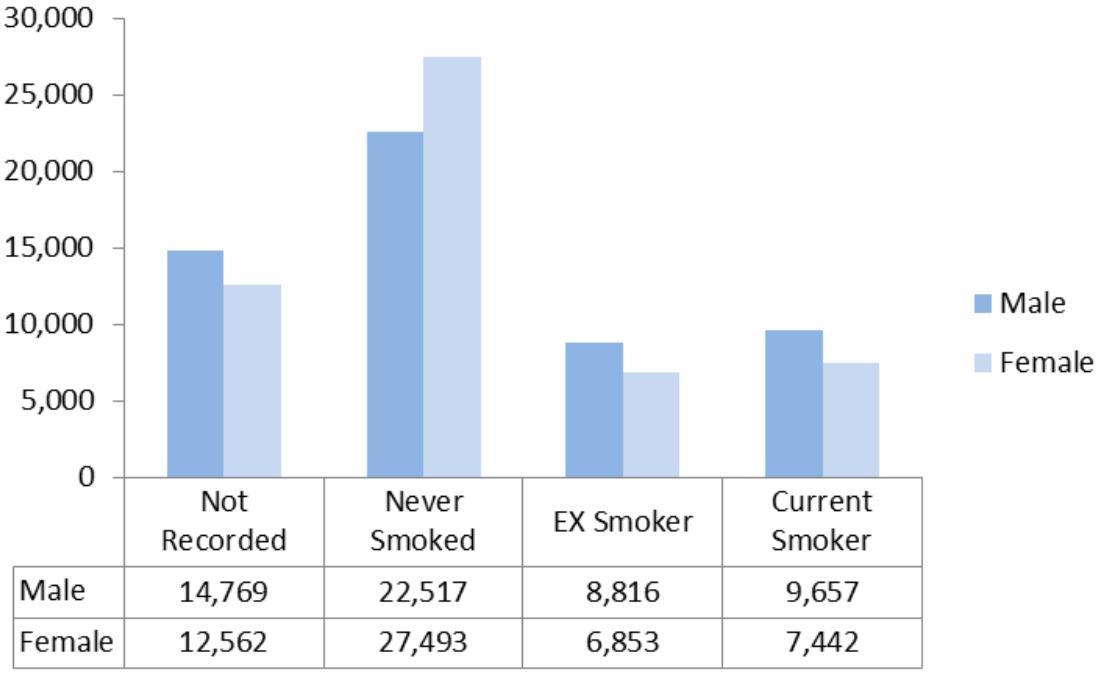


Figure 2: Population pyramid for patients registered with GP practices in Newry/Mourne ICP Area

Smoking Status



	Not Recorded	Never Smoked	EX Smoker	Current Smoker
Male	14,769	22,517	8,816	9,657
Female	12,562	27,493	6,853	7,442

Figure 3: Recorded smoking status for patients aged 15+ registered with a GP practice in Newry/Mourne ICP area

Based on recorded smoking status:

- Male smoking rate (aged 15+) = 23.6%
- Female smoking rate (aged 15+) = 17.8%
- Overall smoking rate (aged 15+) = 20.7%

Clinical Conditions

This report reviews the 14 clinical conditions listed in table 1.

Condition	Male	Female	Total Count of patients with the condition
Asthma	3,527	3,651	7,178
Atrial Fibrillation	934	713	1,647
Chronic Kidney Disease	1,761	2,688	4,449
COPD	954	850	1,804
Coronary Heart Disease	2,385	1,322	3,707
Dementia	171	421	592
Diabetes	2,553	1,930	4,483
Epilepsy	486	425	911
Heart Failure	558	419	977
Hypertension	6,811	7,477	14,288
Hypothyroidism	757	3,429	4,186
PAD	419	197	616
Rheumatoid Arthritis	193	401	594
Stroke or TIA	932	809	1,741
Total Count of patients by Sex	22,441	24,732	47,173

Table 1: Number of patients in Newry/Mourne ICP area with named clinical condition

Co-morbidities

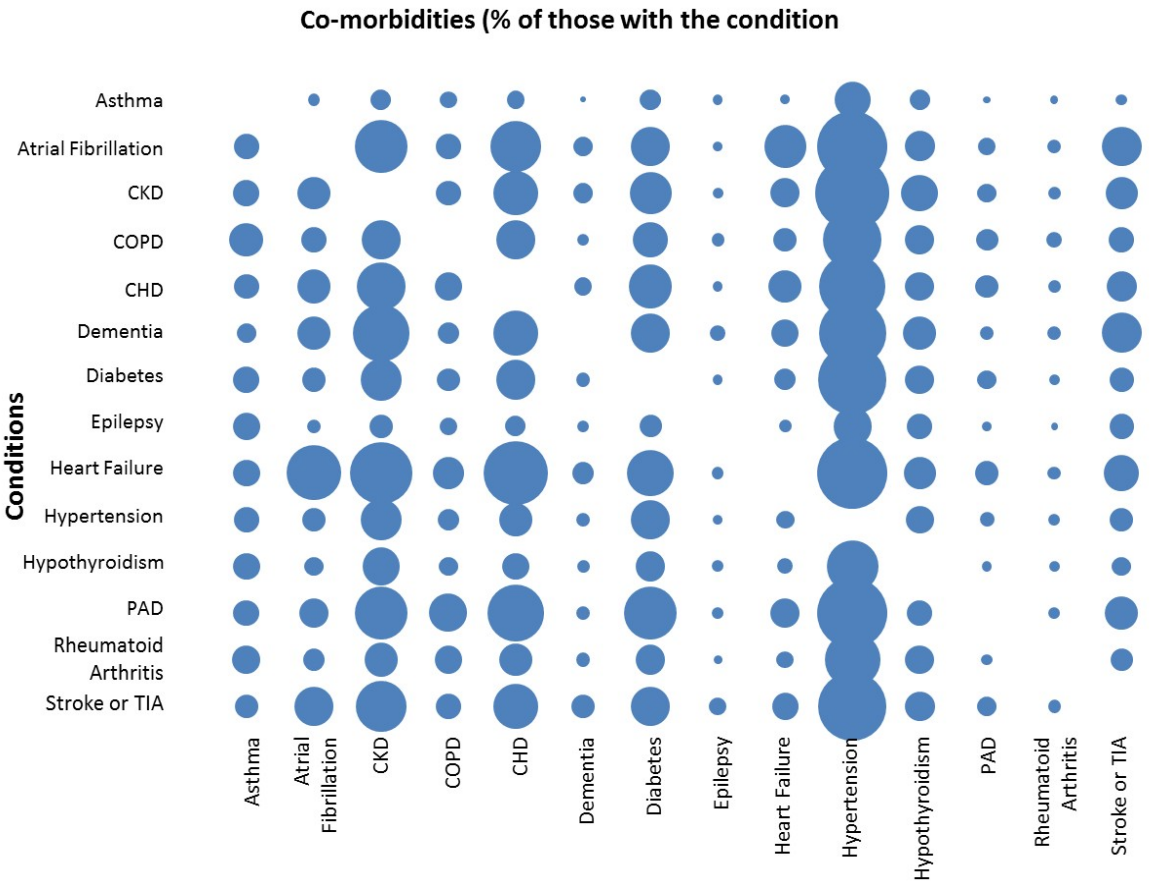


Figure 4: Bubble chart showing percentage of those with a condition who have the indicated co-morbidity

Condition	Percentage of those with the condition who have the Indicated co-morbidity													
Asthma	100	2	5	4	4	0	6	1	1	17	5	1	1	2
Atrial Fibrillation	8	100	37	9	32	5	20	1	23	62	12	4	2	20
Chronic Kidney Disease	9	14	100	8	25	5	23	1	11	69	17	5	2	13
COPD	15	8	20	100	20	2	16	2	7	45	11	6	3	8
Coronary Heart Disease	8	14	30	10	100	4	24	1	14	56	11	7	2	12
Dementia	5	14	40	6	26	100	20	3	10	58	15	3	3	21
Diabetes	9	7	22	7	20	3	100	1	6	60	11	5	1	8
Epilepsy	10	3	7	4	5	2	6	100	2	19	8	1	1	8
Heart Failure	9	38	50	13	53	6	27	2	100	63	13	7	2	16
Hypertension	8	7	22	6	15	2	19	1	4	100	10	3	2	7
Hypothyroidism	9	5	18	5	9	2	11	2	3	35	100	1	2	5
PAD	9	11	35	19	41	2	35	2	12	63	9	100	2	14
Rheumatoid Arthritis	10	6	15	10	14	3	11	1	4	40	11	2	100	6
Stroke or TIA	7	19	33	9	25	7	20	4	9	60	12	5	2	##
	Asthma	Atrial Fibrillation	Chronic Kidney Disease	COPD	Coronary Heart Disease	Dementia	Diabetes	Epilepsy	Heart Failure	Hypertension	Hypothyroidism	PAD	Rheumatoid Arthritis	Stroke or TIA

Table 2: Data table for figure 4

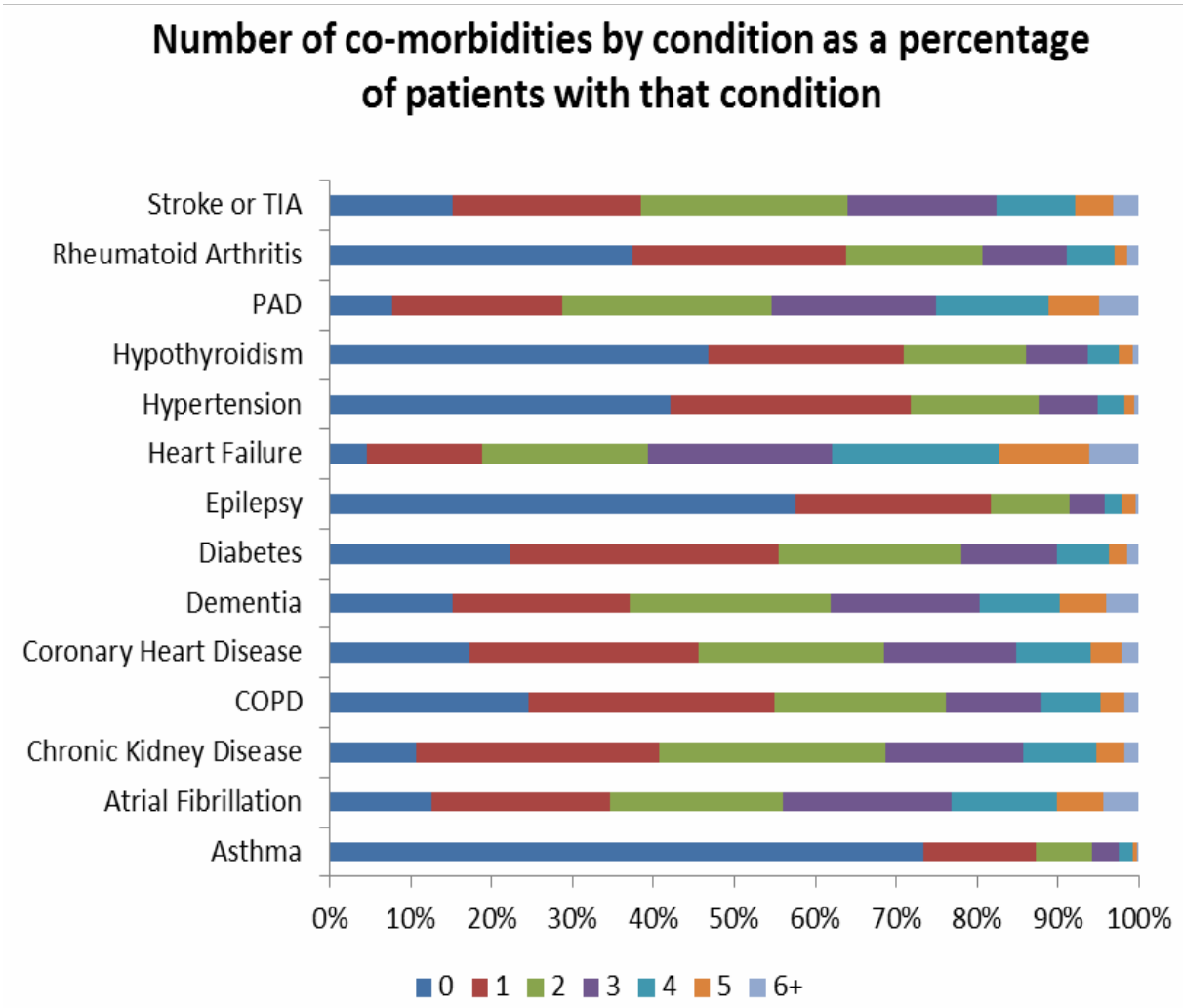


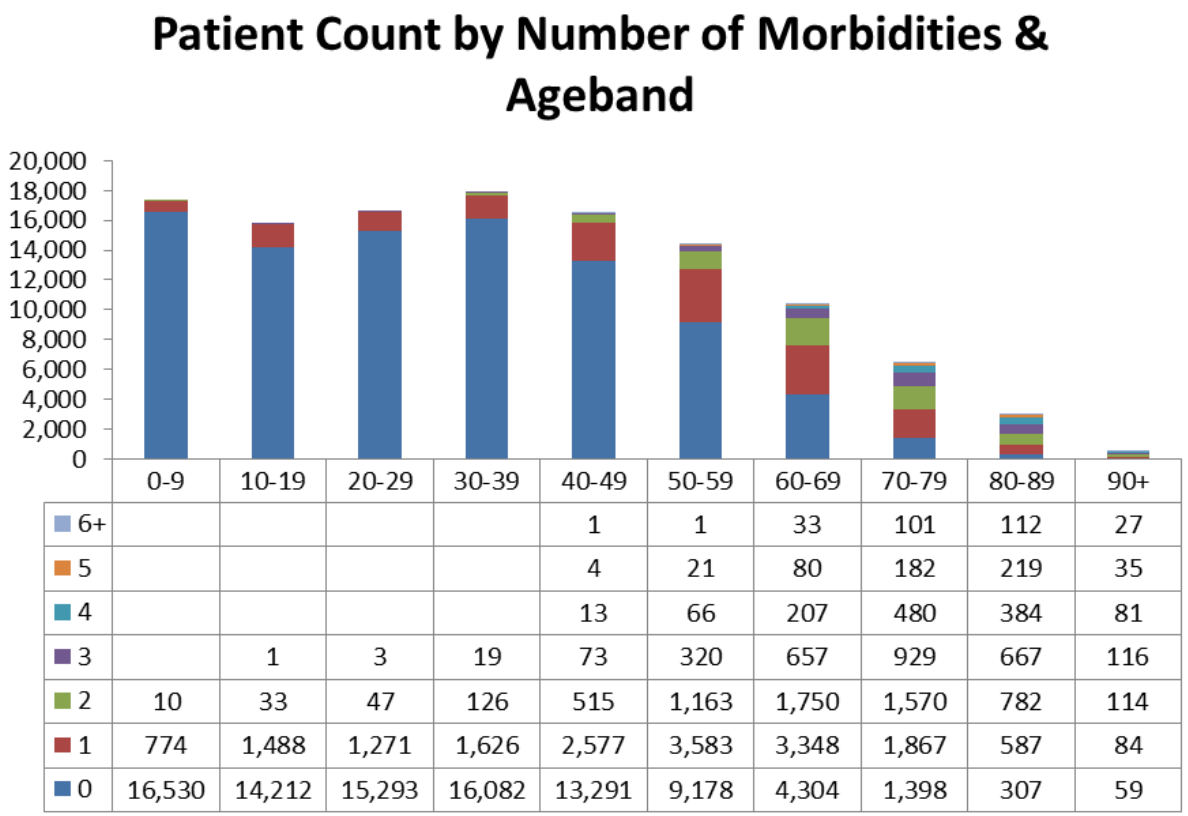
Figure 5: Visual representation of the profile of co-morbidities per patient for patients registered with a GP Practice within the Newry/Mourne ICP area

Number of co-morbidities	Asthma	Atrial Fibrillation	CKD	COPD	Coronary Heart Disease	Dementia	Diabetes
0	5,266	208	477	444	638	90	999
1	999	362	1,336	547	1,052	130	1,489
2	491	352	1,245	384	850	146	1,009
3	238	344	756	210	607	109	530
4	126	215	398	132	340	59	287
5	39	94	157	53	140	34	104
6+	19	72	80	34	80	24	65
	7,178	**1,647**	**4,449**	**1,804**	**3,707**	**592**	**4,483**

Table 3: Co-morbidity count by named clinical condition for patients registered with a GP Practice within the Newry/Mourne ICP area

Number of co-morbidities	Epilepsy	Heart Failure	Hypertension	Hypothyroidism	PAD	Rheumatoid Arthritis	Stroke or TIA
0	525	45	6,021	1,957	48	222	265
1	219	139	4,241	1,015	129	157	405
2	88	201	2,260	627	159	100	443
3	40	222	1,040	321	125	62	320
4	20	202	472	162	86	35	171
5	15	107	169	68	39	9	82
6+	4	61	85	36	30	9	55
	911	**977**	**14,288**	**4,186**	**616**	**594**	**1,741**

Table 4: Co-morbidity count by named clinical condition for patients registered with a GP Practice within the Newry/Mourne ICP area



	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90+
6+					1	1	33	101	112	27
5					4	21	80	182	219	35
4					13	66	207	480	384	81
3		1	3	19	73	320	657	929	667	116
2	10	33	47	126	515	1,163	1,750	1,570	782	114
1	774	1,488	1,271	1,626	2,577	3,583	3,348	1,867	587	84
0	16,530	14,212	15,293	16,082	13,291	9,178	4,304	1,398	307	59

Figure 6: Count of morbidities by age band for patients registered with a GP Practice within the Newry/Mourne ICP area

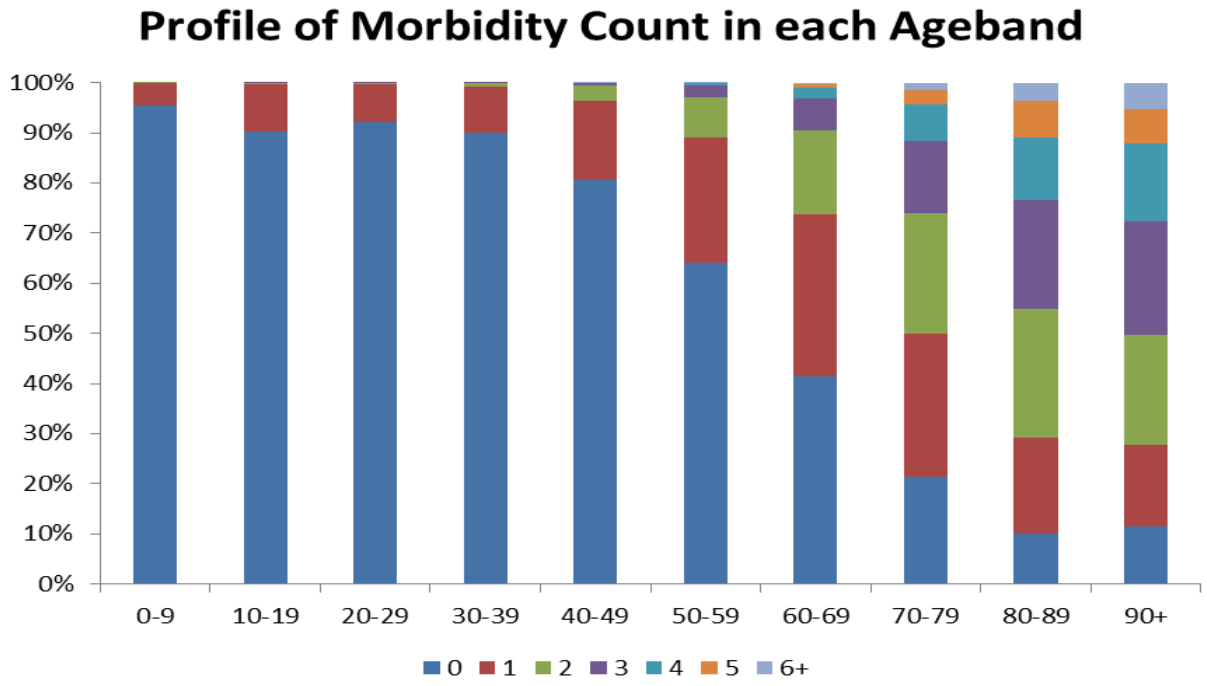
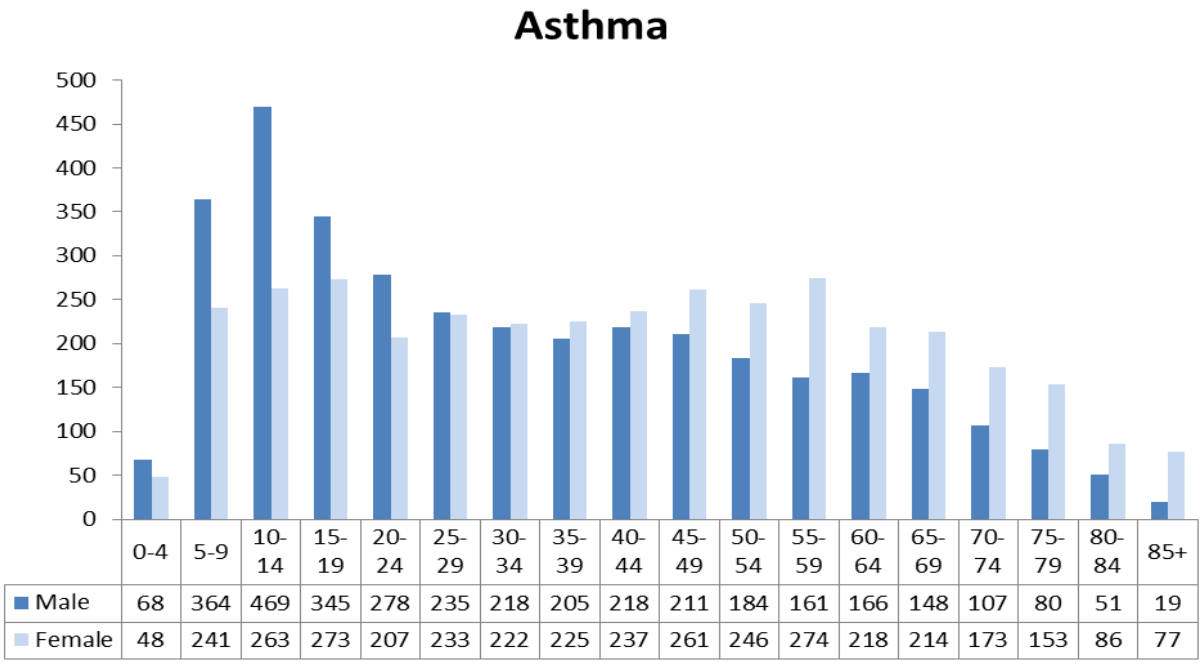


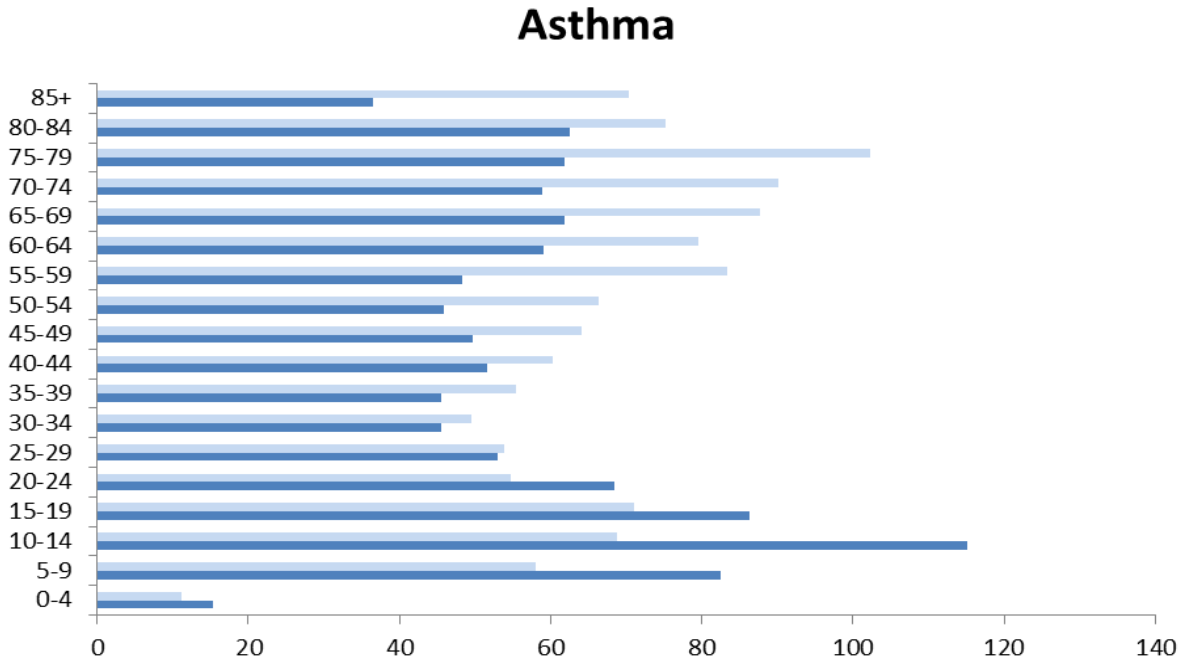
Figure 7: Relative proportion of the population in each age band with a given number of morbidities for patients registered with a GP Practice within the Newry/Mourne ICP area

Morbidities



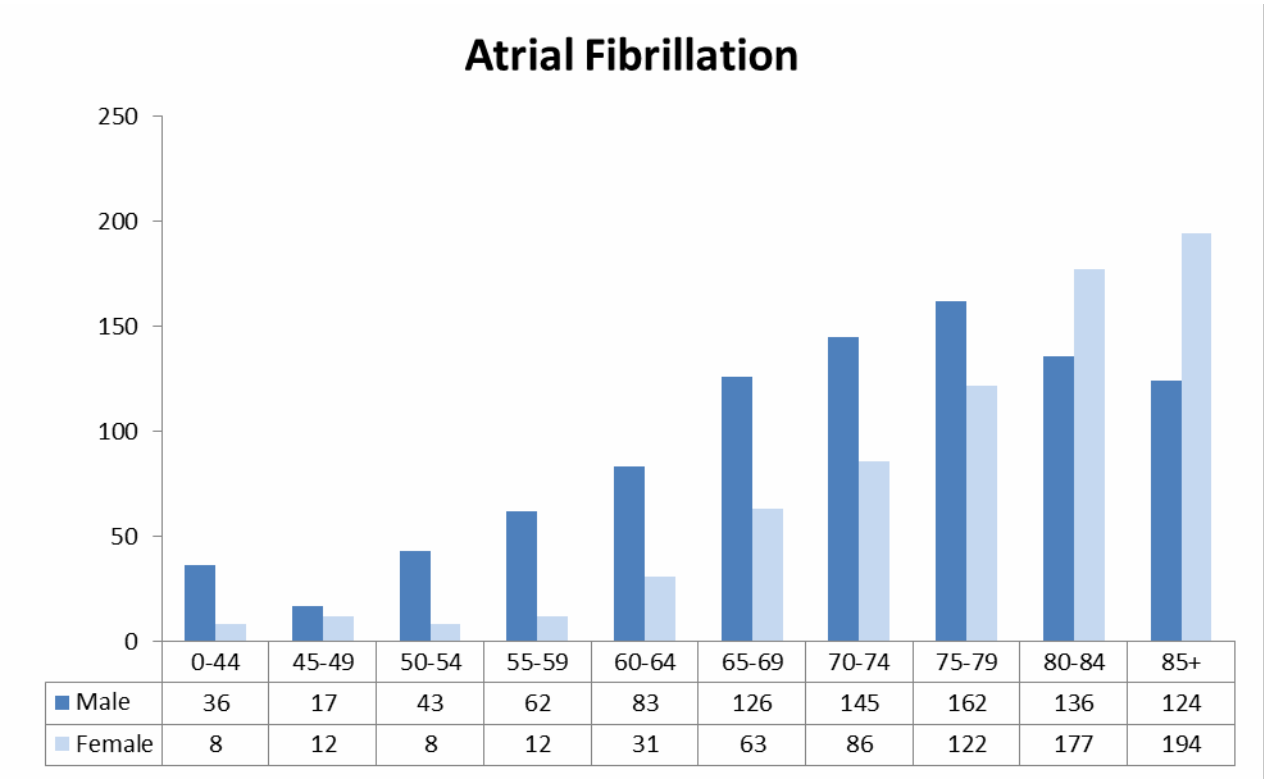
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Male	68	364	469	345	278	235	218	205	218	211	184	161	166	148	107	80	51	19
Female	48	241	263	273	207	233	222	225	237	261	246	274	218	214	173	153	86	77

Figure 8: Age-sex breakdown of asthmatic patients registered with a GP Practice within the Newry/Mourne ICP area



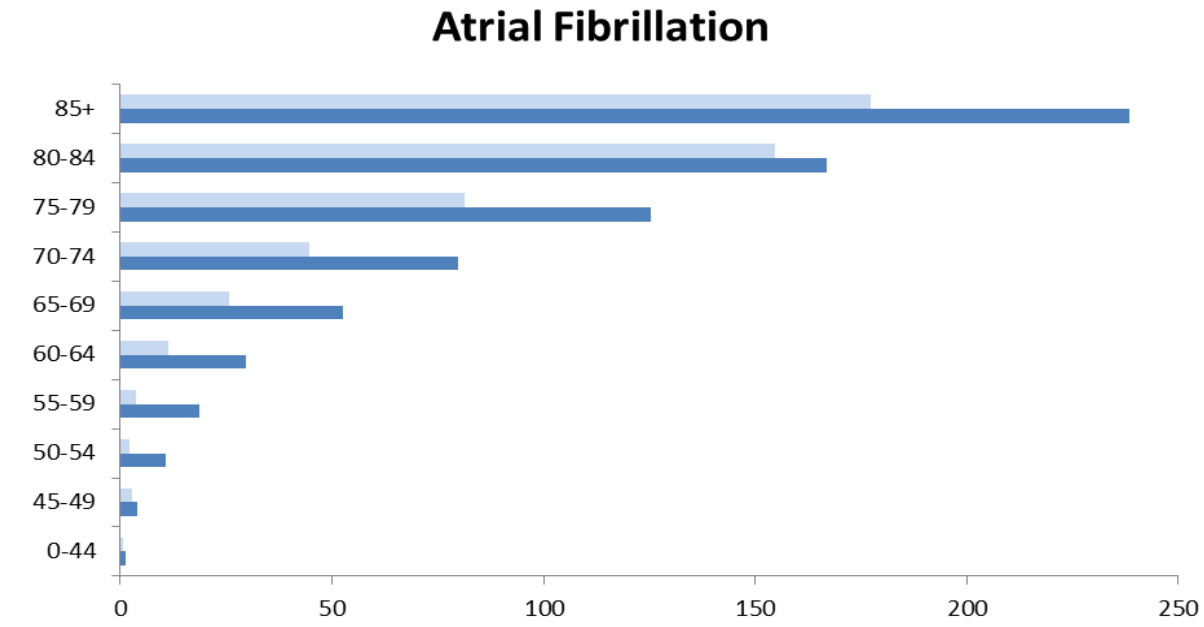
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Female	11.2	58.1	68.7	71.1	54.7	53.8	49.4	55.4	60.2	64.2	66.4	83.4	79.5	87.7	90.1	102.	75.2	70.3
Male	15.2	82.4	115.	86.4	68.5	52.9	45.5	45.5	51.6	49.7	45.9	48.3	59.1	61.9	58.9	61.9	62.6	36.5

Figure 9: Age-sex specific rates for asthma per 1,000 patients registered with a GP Practice within the Newry/Mourne ICP area



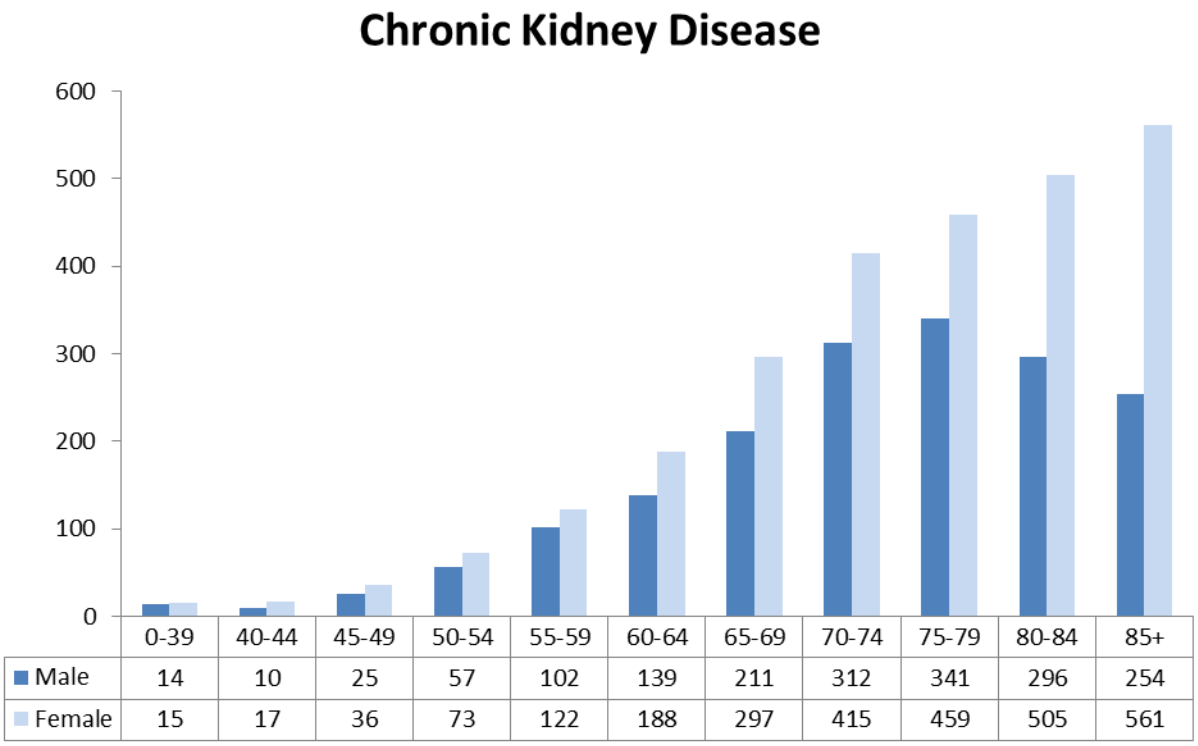
	0-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Male	36	17	43	62	83	126	145	162	136	124
Female	8	12	8	12	31	63	86	122	177	194

Figure 10: Age-sex breakdown of AF patients registered with a GP Practice within the Newry/Mourne ICP area



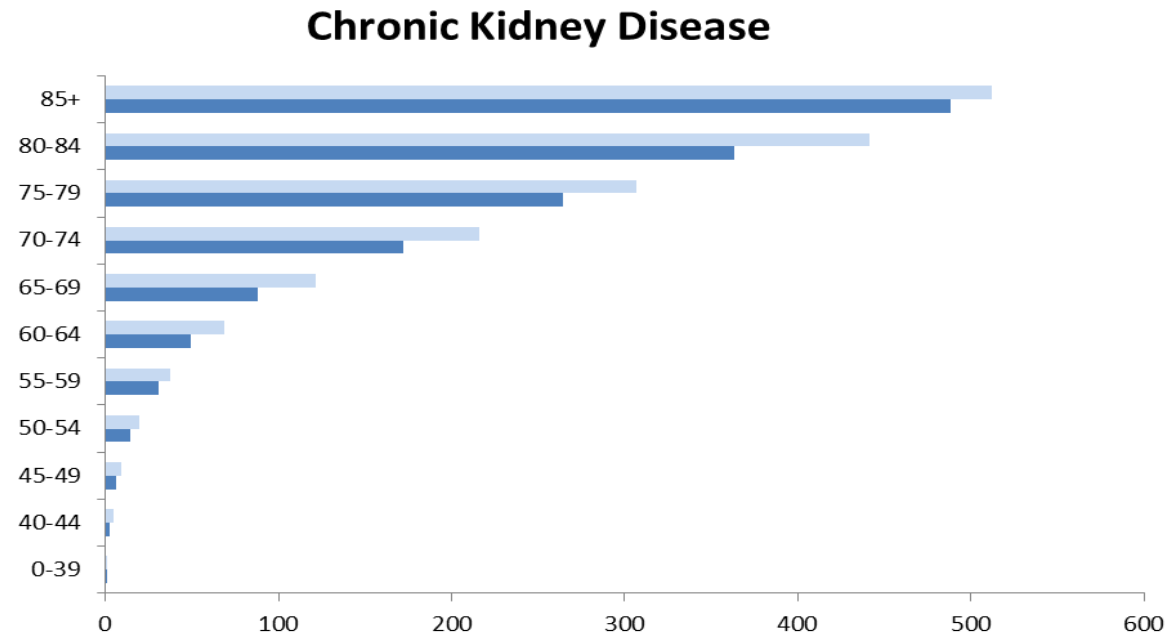
	0-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Female	0.6	2.9	2.2	3.7	11.3	25.8	44.8	81.5	154.7	177.2
Male	1.4	4.0	10.7	18.6	29.6	52.7	79.8	125.4	166.9	238.5

Figure 11: Age-sex breakdown of asthmatic patients registered with a GP Practice within the Newry/Mourne ICP area



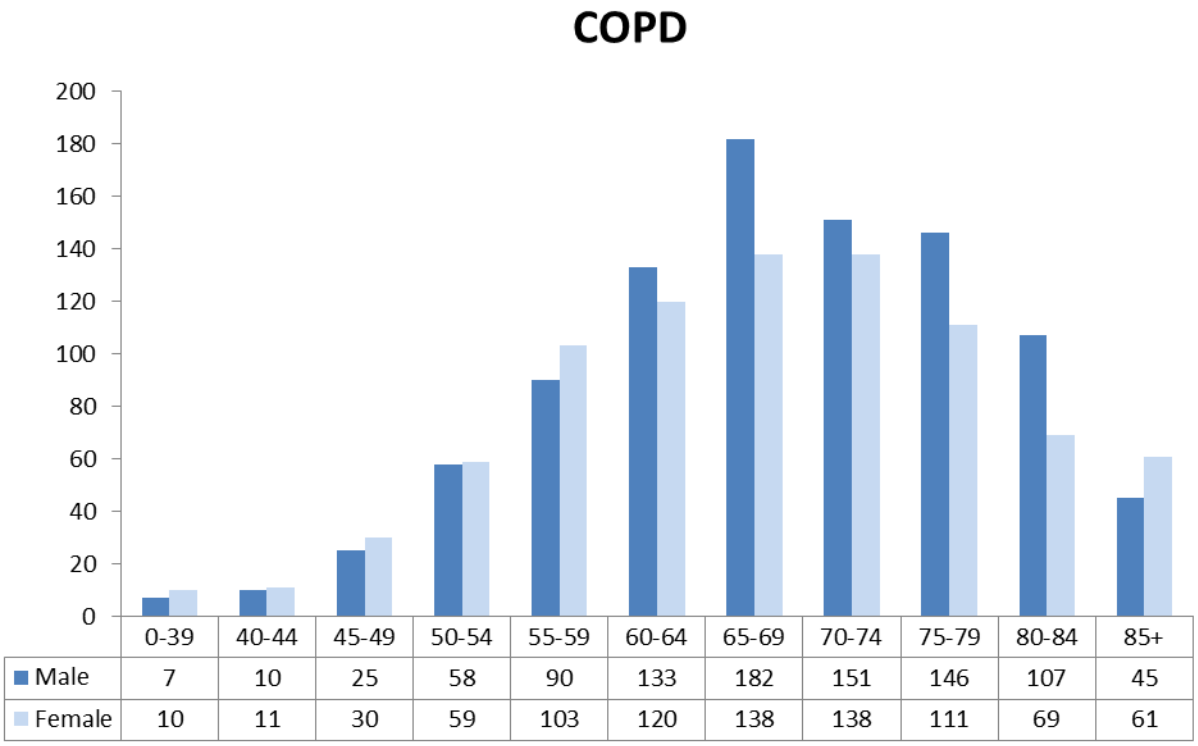
	0-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Male	14	10	25	57	102	139	211	312	341	296	254
Female	15	17	36	73	122	188	297	415	459	505	561

Figure 12: Age-sex breakdown of CKD patients registered with a GP Practice within the Newry/Mourne ICP area



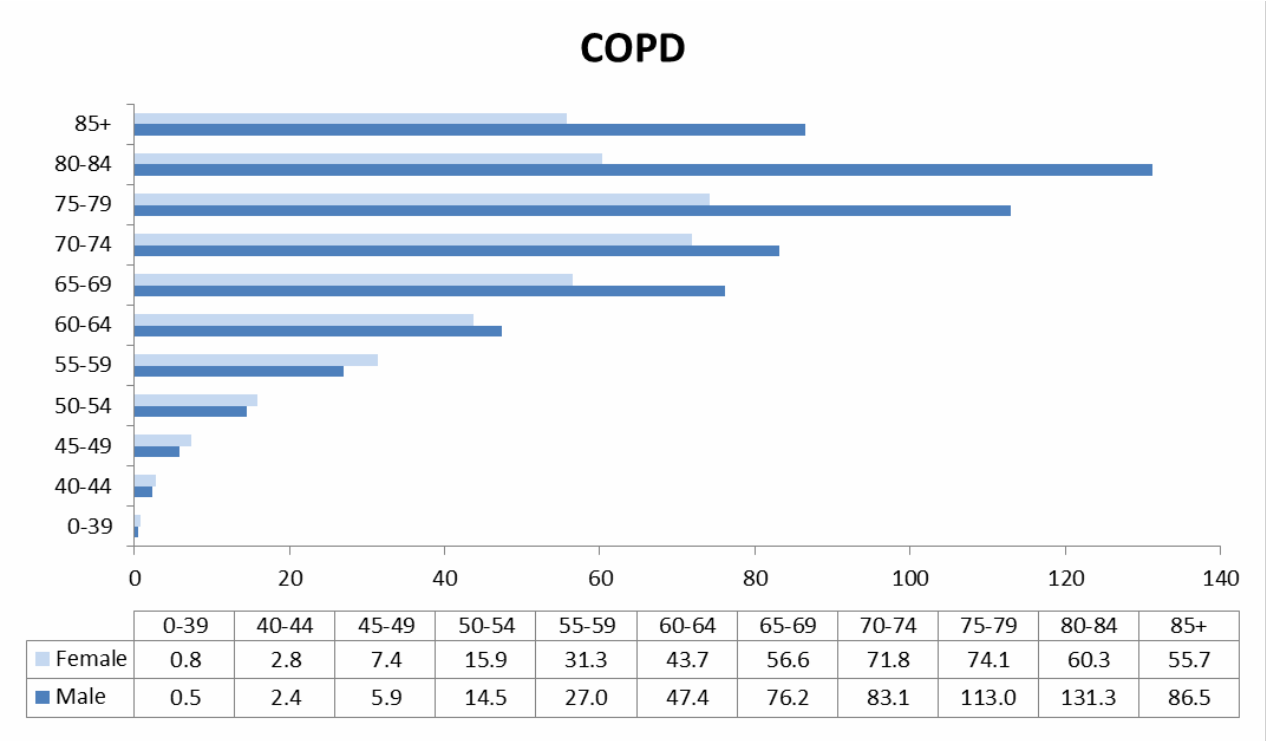
	0-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Female	0.9	4.3	8.8	19.7	37.1	68.5	121.8	216.0	306.6	441.4	512.3
Male	0.6	2.4	5.9	14.2	30.6	49.5	88.3	171.7	263.9	363.2	488.5

Figure 13: Age-sex specific rates for CKD per 1,000 patients registered with a GP Practice within the Newry/Mourne ICP area



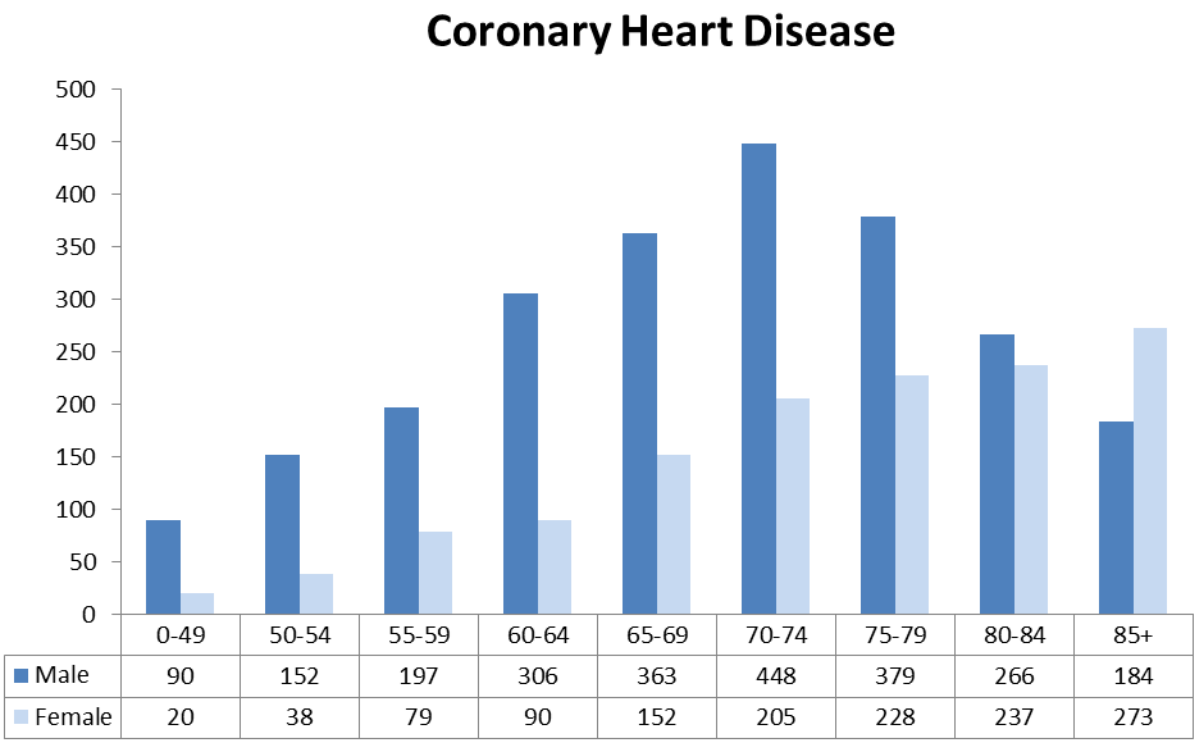
	0-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Male	7	10	25	58	90	133	182	151	146	107	45
Female	10	11	30	59	103	120	138	138	111	69	61

Figure 14: Age-sex breakdown of COPD patients registered with a GP Practice within the Newry/Mourne ICP area



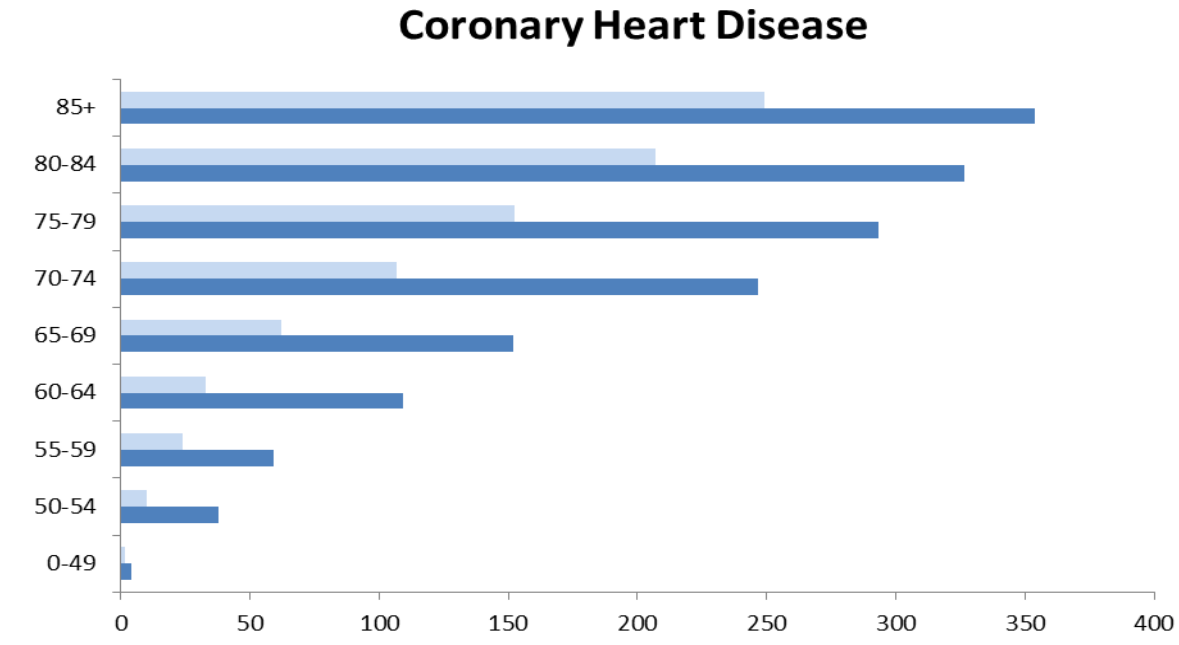
	0-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Female	0.8	2.8	7.4	15.9	31.3	43.7	56.6	71.8	74.1	60.3	55.7
Male	0.5	2.4	5.9	14.5	27.0	47.4	76.2	83.1	113.0	131.3	86.5

Figure 15: Age-sex specific rates for COPD per 1,000 patients registered with a GP Practice within the Newry/Mourne ICP area



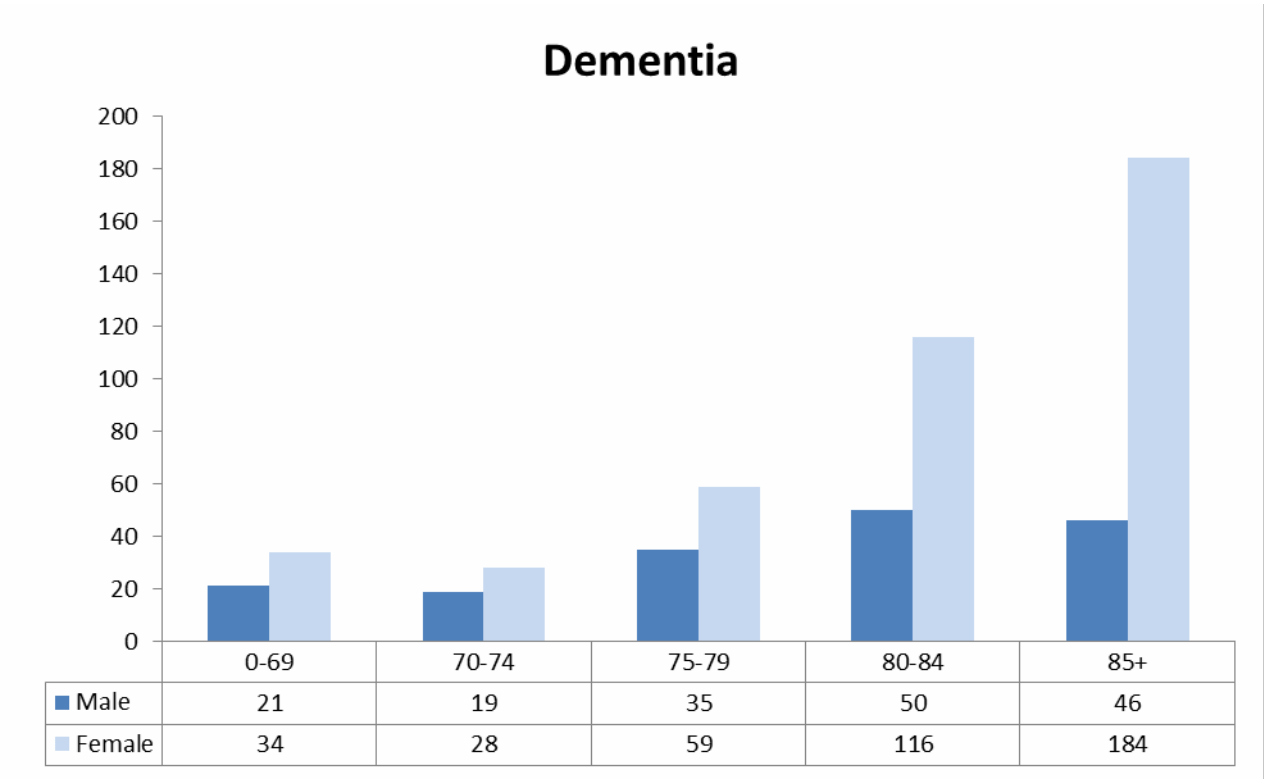
	0-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Male	90	152	197	306	363	448	379	266	184
Female	20	38	79	90	152	205	228	237	273

Figure 16: Age-sex breakdown of CHD patients registered with a GP Practice within the Newry/Mourne ICP area



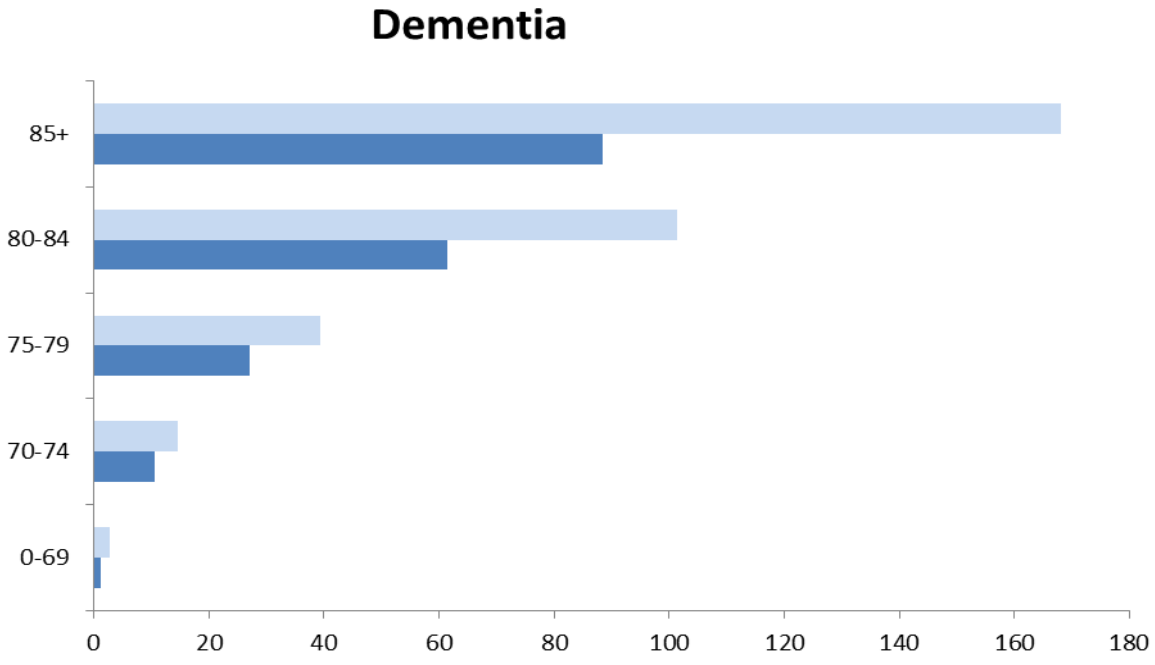
	0-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Female	1.6	10.3	24.0	32.8	62.3	106.7	152.3	207.2	249.3
Male	4.1	38.0	59.1	109.0	151.9	246.6	293.3	326.4	353.8

Figure 17: Age-sex specific rates for CHD per 1,000 patients registered with a GP Practice within the Newry/Mourne ICP area



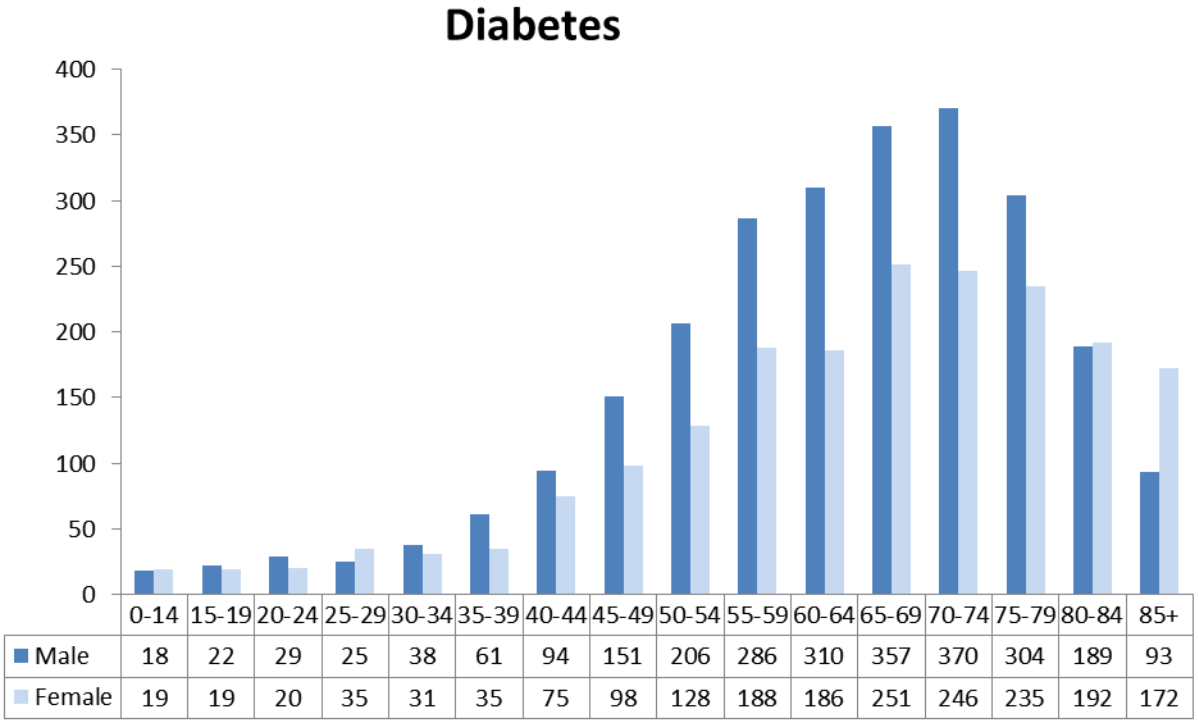
	0-69	70-74	75-79	80-84	85+
Male	21	19	35	50	46
Female	34	28	59	116	184

Figure 18: Age-sex breakdown of Dementia patients registered with a GP Practice within the Newry/Mourne ICP area



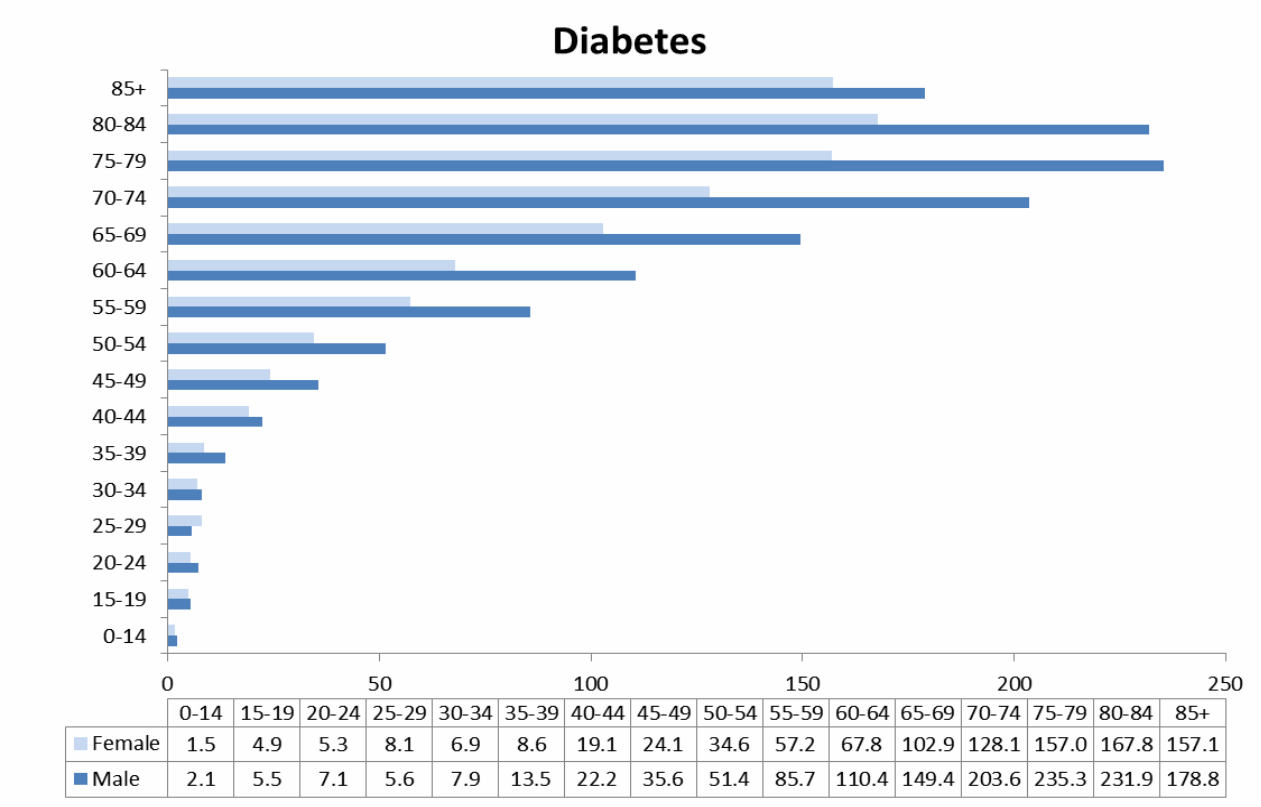
	0-69	70-74	75-79	80-84	85+
Female	2.8	14.6	39.4	101.4	168.0
Male	1.2	10.5	27.1	61.3	88.5

Figure 19: Age-sex specific rates for Dementia per 1,000 patients registered with a GP Practice within the Newry/Mourne ICP area



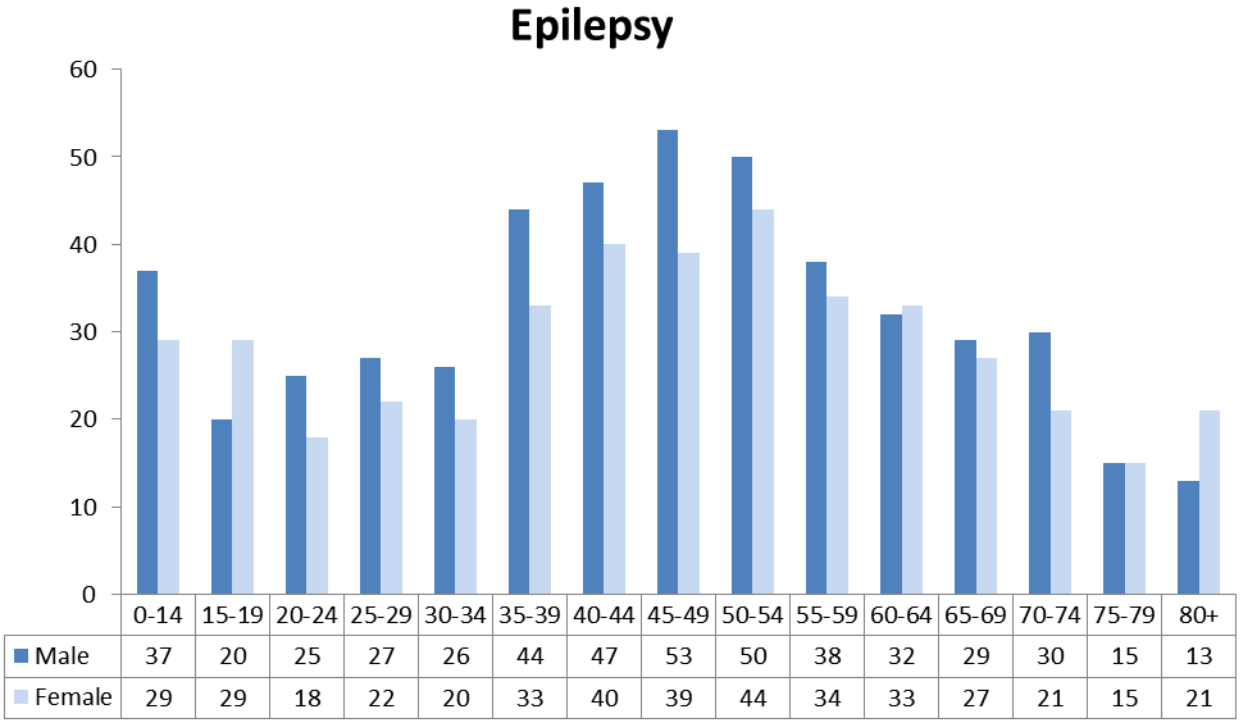
	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Male	18	22	29	25	38	61	94	151	206	286	310	357	370	304	189	93
Female	19	19	20	35	31	35	75	98	128	188	186	251	246	235	192	172

Figure 20: Age-sex breakdown of Diabetes patients registered with a GP Practice within the Newry/Mourne ICP area



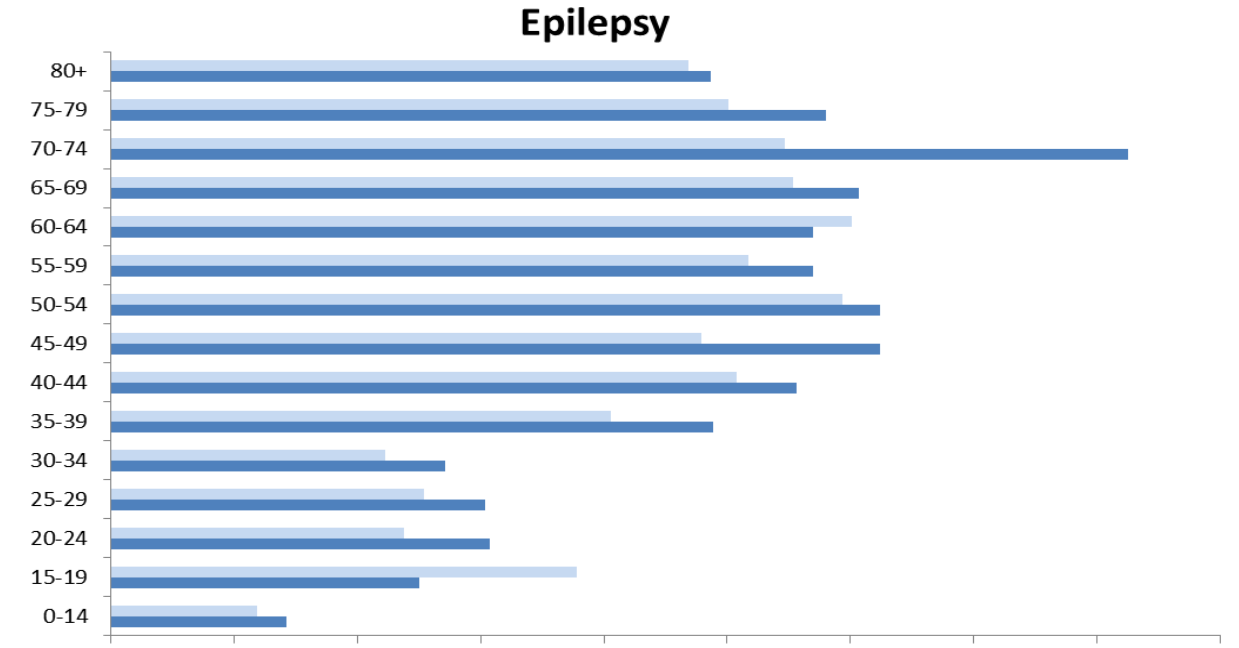
	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Female	1.5	4.9	5.3	8.1	6.9	8.6	19.1	24.1	34.6	57.2	67.8	102.9	128.1	157.0	167.8	157.1
Male	2.1	5.5	7.1	5.6	7.9	13.5	22.2	35.6	51.4	85.7	110.4	149.4	203.6	235.3	231.9	178.8

Figure 21: Age-sex specific rates for Diabetes per 1,000 patients registered with a GP Practice within the Newry/Mourne ICP area



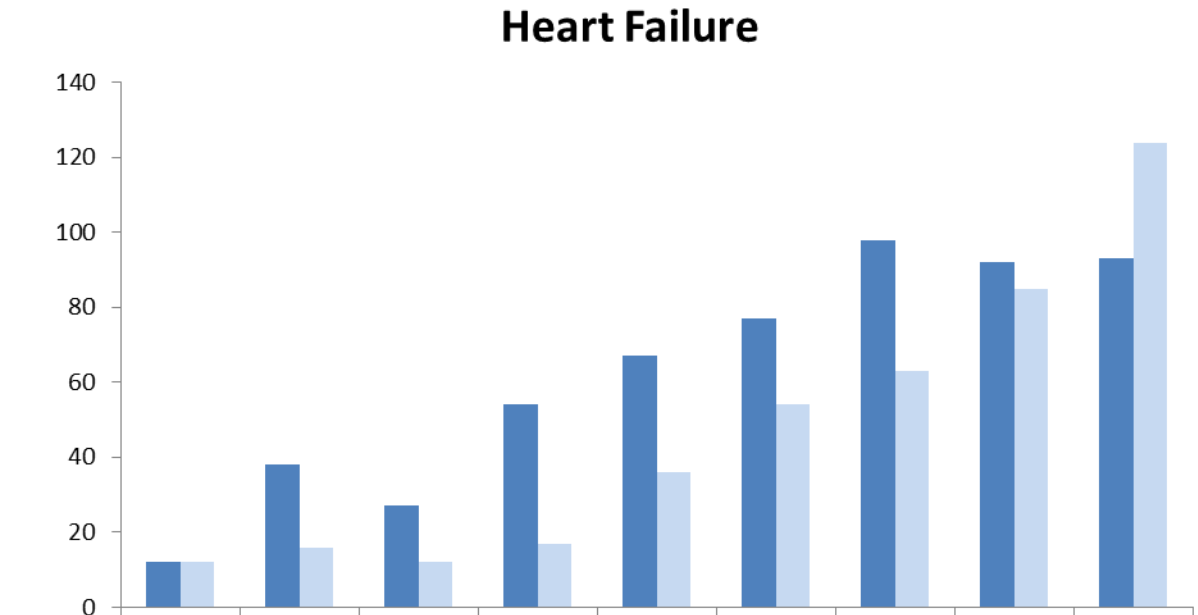
	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+
Male	37	20	25	27	26	44	47	53	50	38	32	29	30	15	13
Female	29	29	18	22	20	33	40	39	44	34	33	27	21	15	21

Figure 22: Age-sex breakdown of Epileptic patients registered with a GP Practice within the Newry/Mourne ICP area



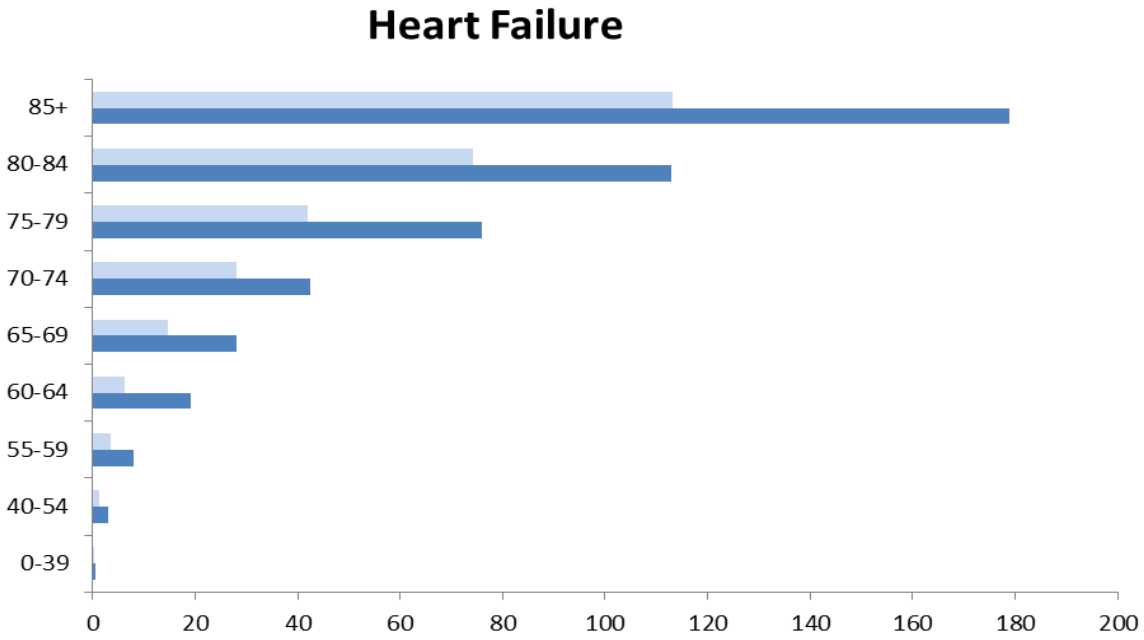
	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+
Female	2.4	7.6	4.8	5.1	4.5	8.1	10.2	9.6	11.9	10.3	12.0	11.1	10.9	10.0	9.4
Male	2.9	5.0	6.2	6.1	5.4	9.8	11.1	12.5	12.5	11.4	11.4	12.1	16.5	11.6	9.7

Figure 23: Age-sex breakdown of Epileptic patients registered with a GP Practice within the Newry/Mourne ICP area



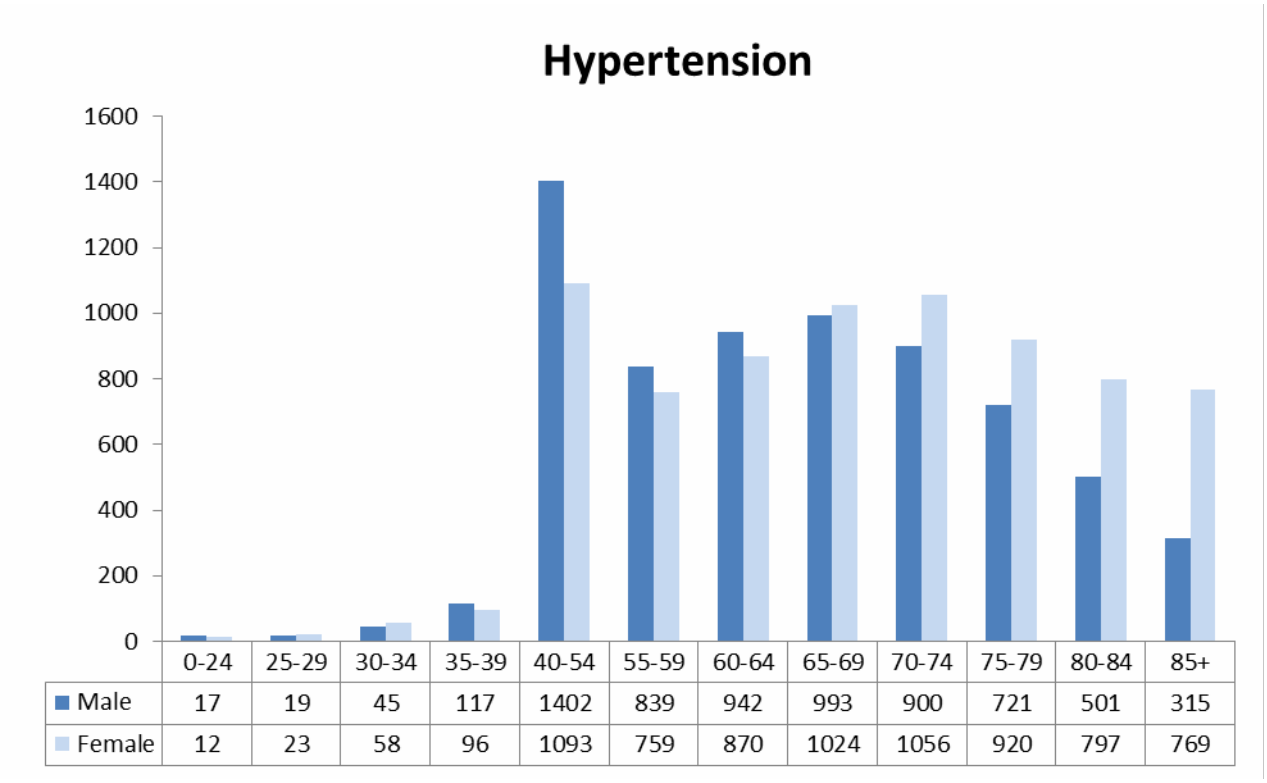
	0-39	40-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Male	12	38	27	54	67	77	98	92	93
Female	12	16	12	17	36	54	63	85	124

Figure 24: Age-sex breakdown of Heart Failure patients registered with a GP Practice within the Newry/Mourne ICP area



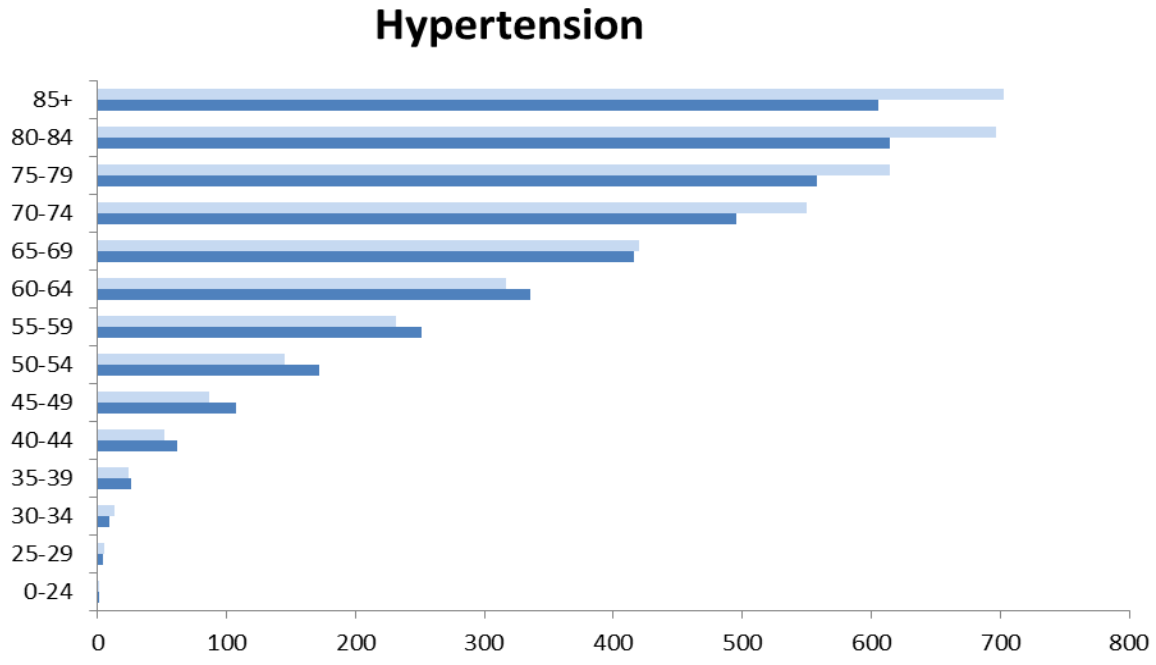
	0-39	40-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Female	0.4	1.4	3.7	6.2	14.8	28.1	42.1	74.3	113.2
Male	0.5	3.0	8.1	19.2	28.0	42.4	75.9	112.9	178.8

Figure 25: Age-sex specific rates for Heart Failure per 1,000 patients registered with a GP Practice within the Newry/Mourne ICP area



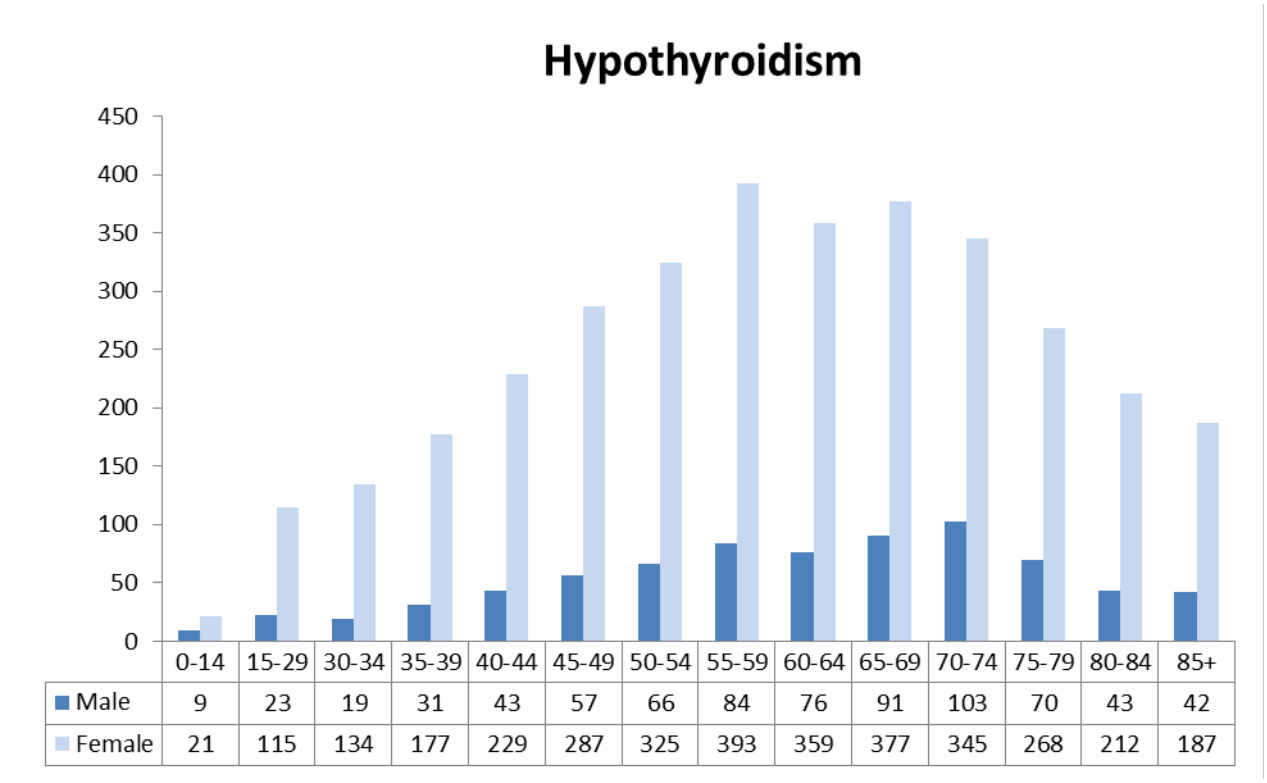
	0-24	25-29	30-34	35-39	40-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Male	17	19	45	117	1402	839	942	993	900	721	501	315
Female	12	23	58	96	1093	759	870	1024	1056	920	797	769

Figure 26: Age-sex breakdown of Hypertensive patients registered with a GP Practice within the Newry/Mourne ICP area



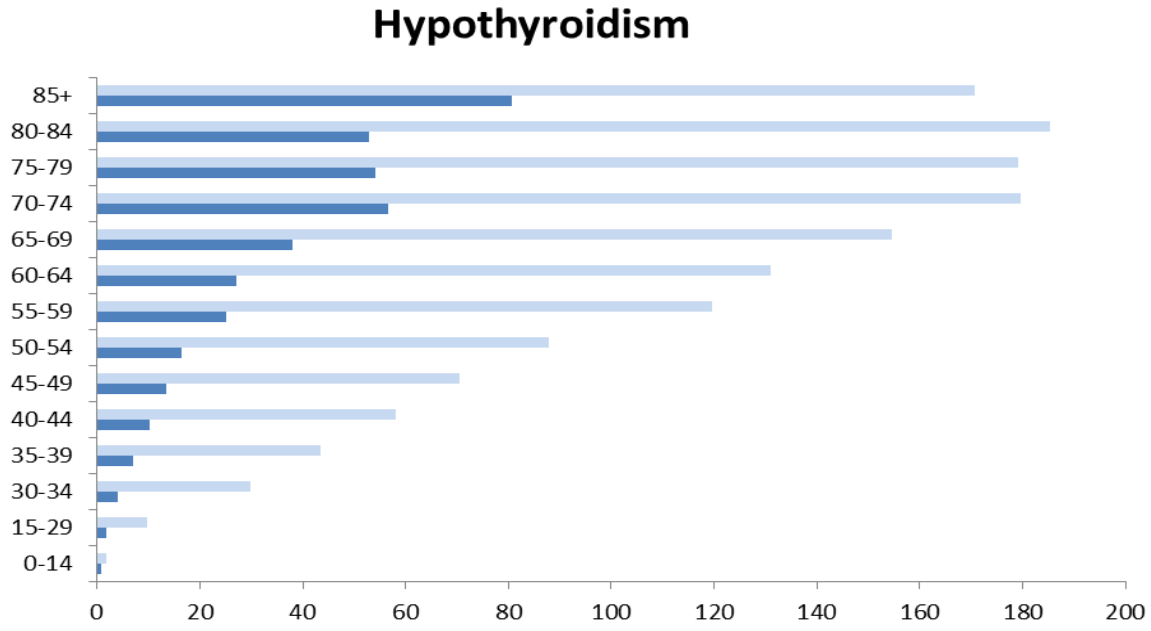
	0-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Female	1.0	5.3	12.9	23.6	51.8	86.5	145.0	230.9	317.2	419.8	549.7	614.6	696.7	702.3
Male	1.4	4.3	9.4	26.0	61.5	107.0	171.8	251.5	335.6	415.5	495.3	558.0	614.7	605.8

Figure 27: Age-sex specific rates for Hypertension per 1,000 patients registered with a GP Practice within the Newry/Mourne ICP area



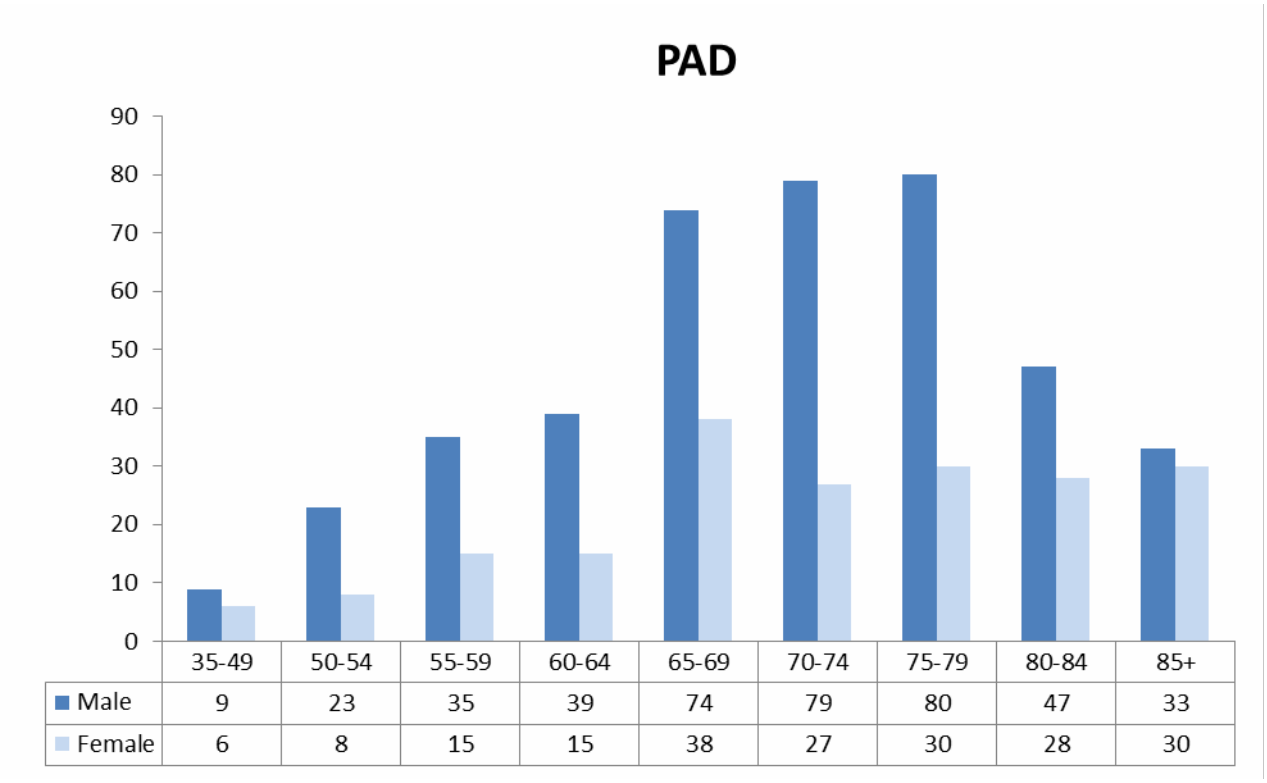
	0-14	15-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Male	9	23	19	31	43	57	66	84	76	91	103	70	43	42
Female	21	115	134	177	229	287	325	393	359	377	345	268	212	187

Figure 28: Age-sex breakdown of Hypothyroid patients registered with a GP Practice within the Newry/Mourne ICP area



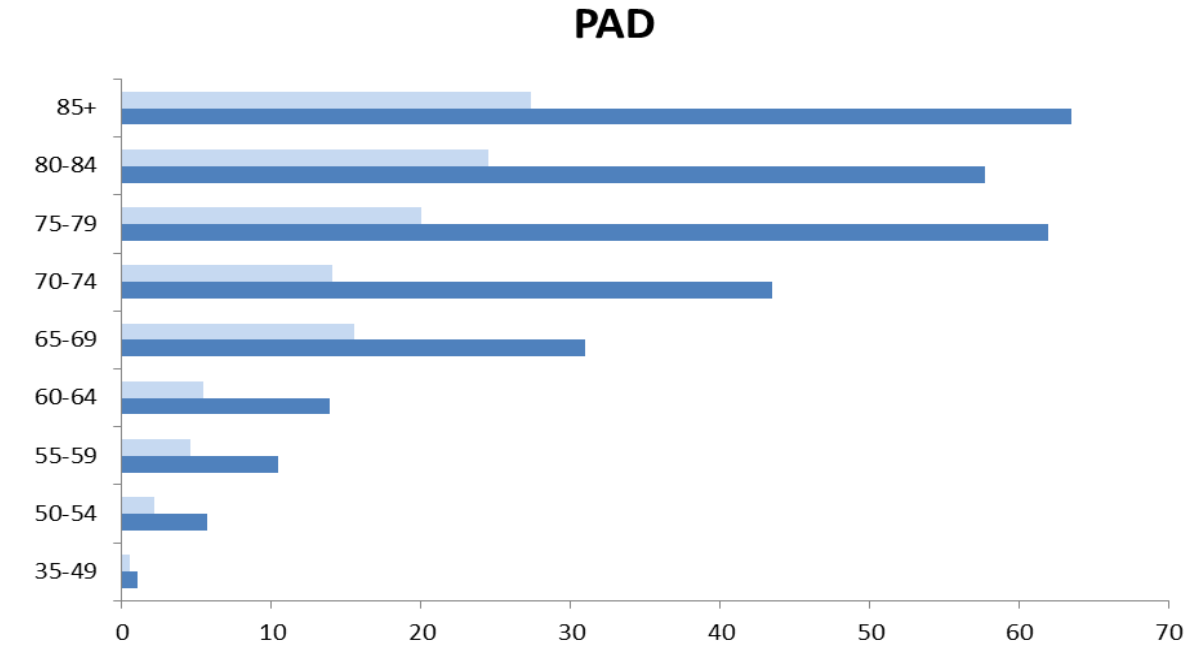
	0-14	15-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Female	1.7	9.6	29.8	43.6	58.2	70.6	87.7	119.6	130.9	154.6	179.6	179.0	185.3	170.8
Male	0.7	1.8	4.0	6.9	10.2	13.4	16.5	25.2	27.1	38.1	56.7	54.2	52.8	80.8

Figure 29: Age-sex specific rates for Hypothyroidism per 1,000 patients registered with a GP Practice within the Newry/Mourne ICP area



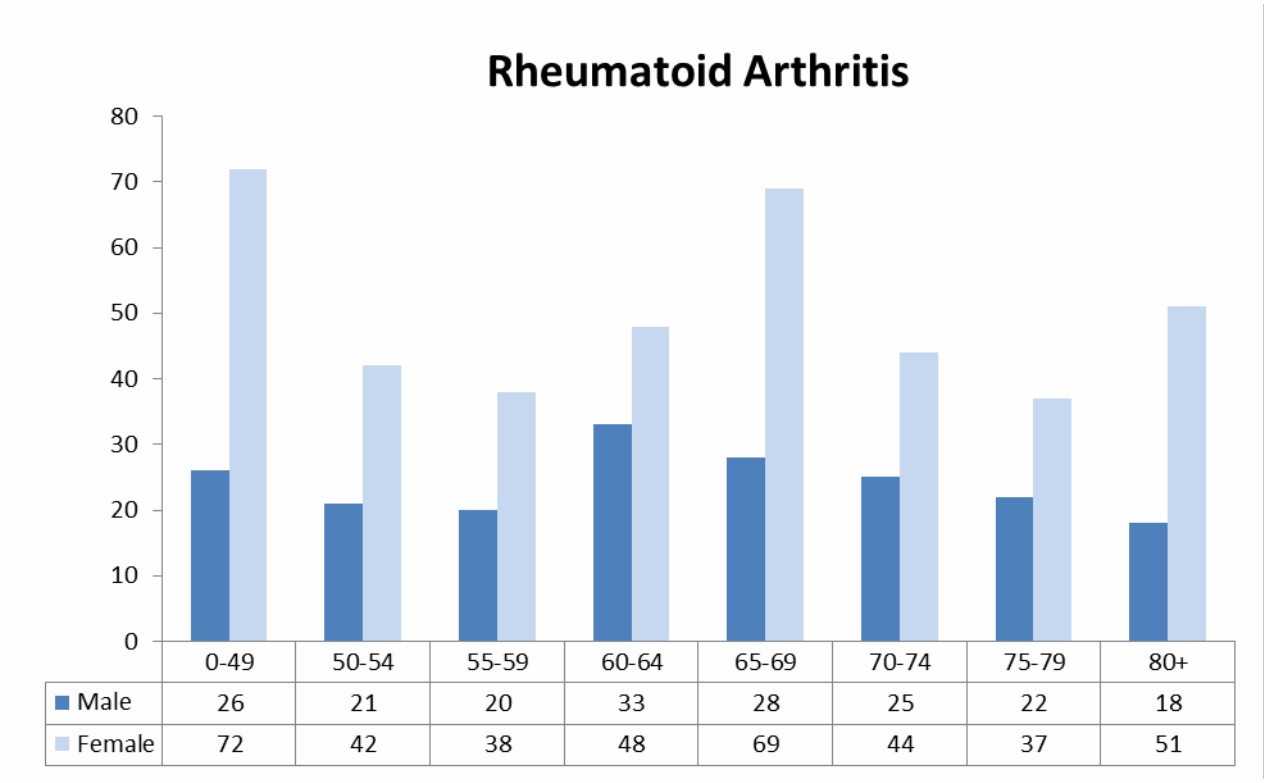
	35-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Male	9	23	35	39	74	79	80	47	33
Female	6	8	15	15	38	27	30	28	30

Figure 30: Age-sex breakdown of PAD patients registered with a GP Practice within the Newry/Mourne ICP area



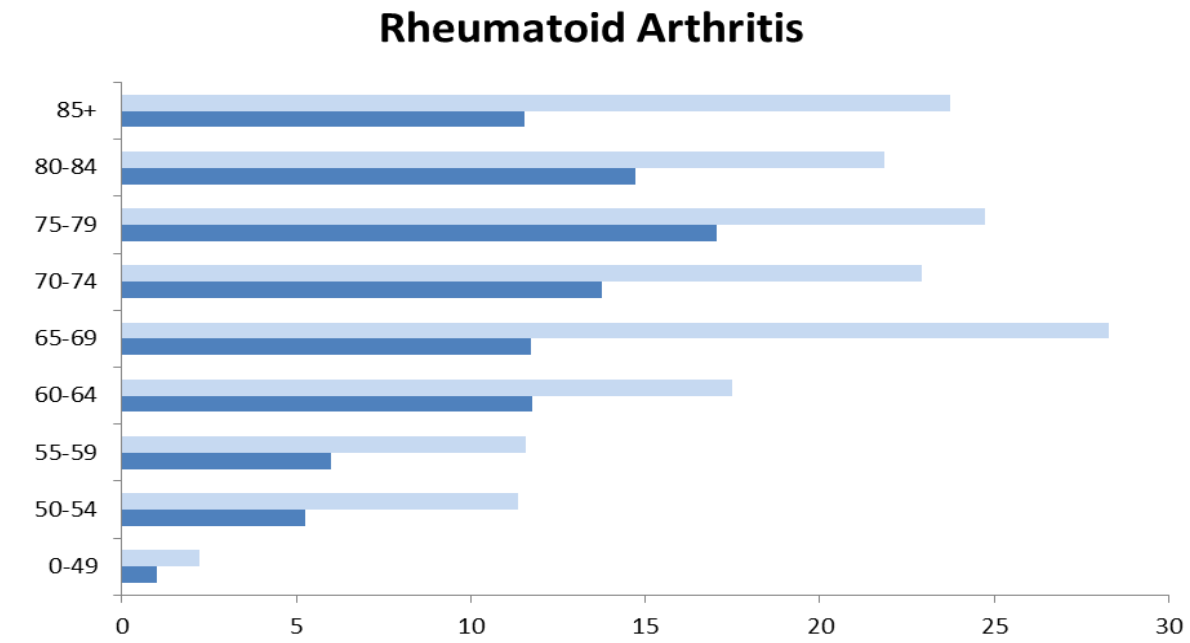
	35-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Female	0.5	2.2	4.6	5.5	15.6	14.1	20.0	24.5	27.4
Male	1.1	5.7	10.5	13.9	31.0	43.5	61.9	57.7	63.5

Figure 31: Age-sex specific rates for PAD per 1,000 patients registered with a GP Practice within the Newry/Mourne ICP area



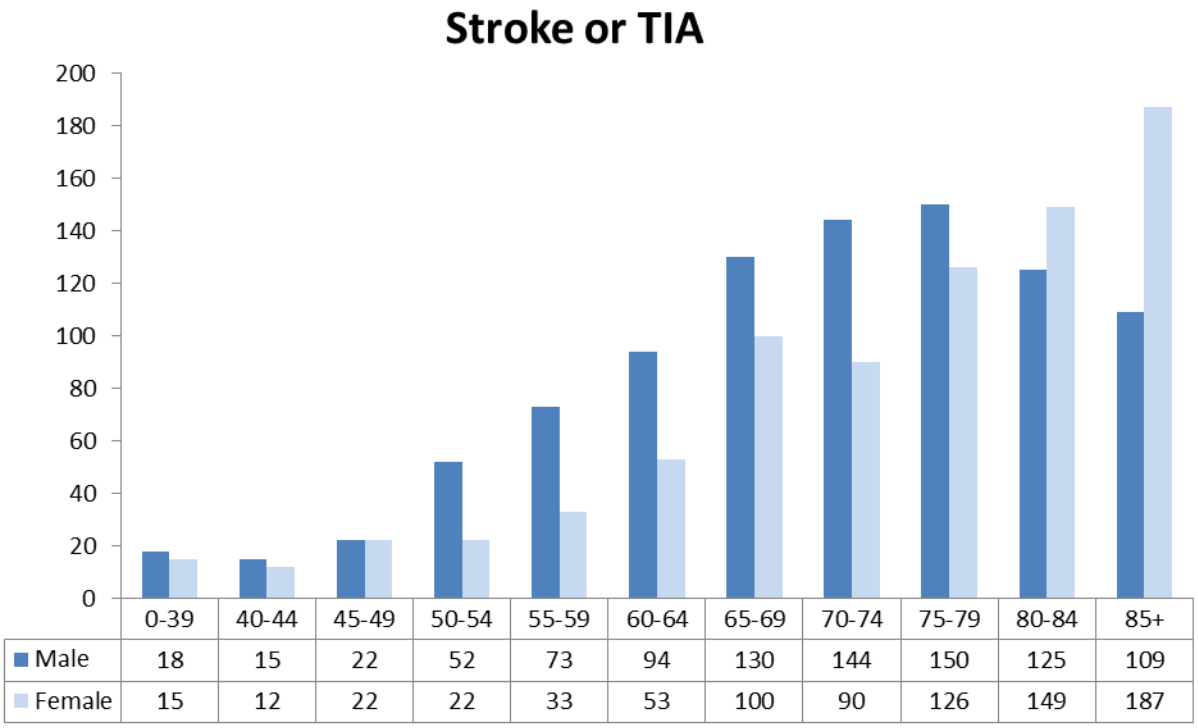
	0-49	50-54	55-59	60-64	65-69	70-74	75-79	80+
Male	26	21	20	33	28	25	22	18
Female	72	42	38	48	69	44	37	51

Figure 32: Age-sex breakdown of RA patients registered with a GP Practice within the Newry/Mourne ICP area



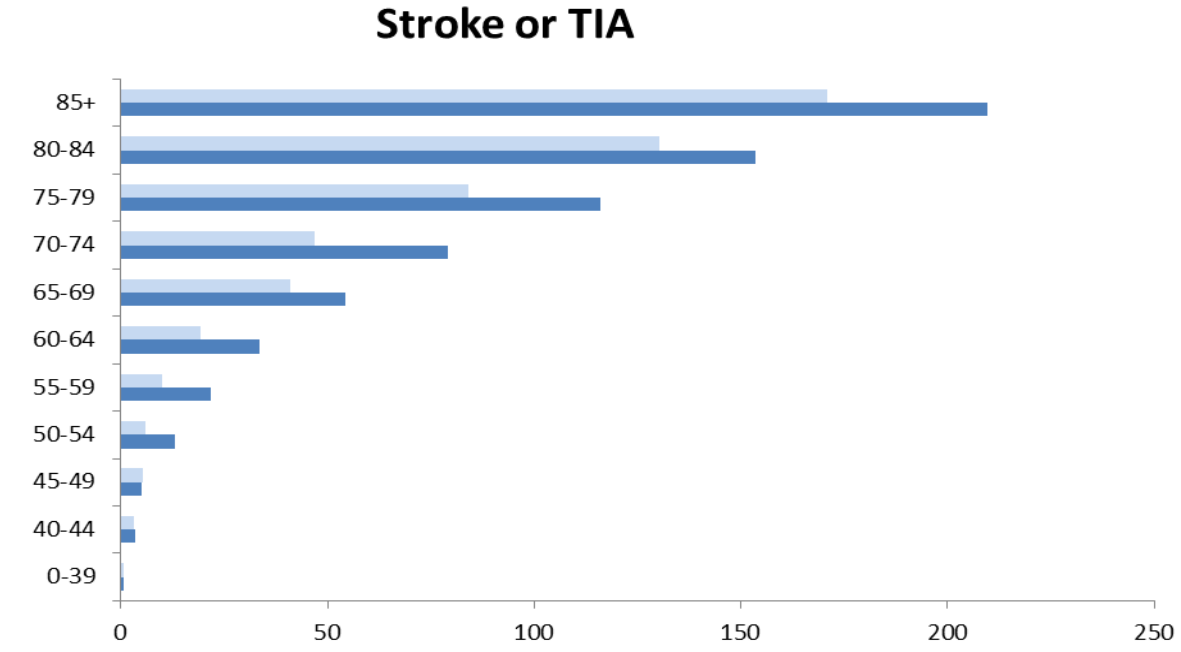
	0-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Female	2.2	11.3	11.6	17.5	28.3	22.9	24.7	21.9	23.7
Male	1.0	5.2	6.0	11.8	11.7	13.8	17.0	14.7	11.5

Figure 33: Age-sex specific rates for Rheumatoid Arthritis per 1,000 patients registered with a GP Practice within the Newry/Mourne ICP area



	0-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Male	18	15	22	52	73	94	130	144	150	125	109
Female	15	12	22	22	33	53	100	90	126	149	187

Figure 34: Age-sex breakdown of Stroke or TIA patients registered with a GP Practice within the Newry/Mourne ICP area.



	0-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Female	0.7	3.0	5.4	5.9	10.0	19.3	41.0	46.9	84.2	130.2	170.8
Male	0.6	3.6	5.2	13.0	21.9	33.5	54.4	79.3	116.1	153.4	209.6

Figure 35: Age-sex specific rates for Stroke or TIA per 1,000 patients registered with a GP Practice within the Newry/Mourne ICP area

APPENDIX 4

Community Based Services

Specialist Community Teams

Role of the Specialist Palliative Care Team

The specialist palliative care team act as a specialist resource for staff and patients. The team advise and support the management of complex symptom for patients and care for patients at end of life with a progressive or non-curative condition. The team may see patients in their own homes, clinic settings, non-acute settings and other community settings such as care homes. Not everyone with a palliative condition will require input from the Specialist Palliative Care Team, referrals should be made to the specialist team following competent palliative care from core teams. The service is available Monday to Friday 9am to 5pm.

Patients and professionals are offered education, advice and support from team members in partnership with other community services.

The team includes –

- Consultant in Palliative Medicine
- Palliative Care Nurse Specialists (Also known as Macmillan & Hospice Nurses)
- Specialist Physiotherapist
- Specialist Occupational Therapist
- Specialist Speech & Language Therapist
- Specialist Dietitian
- Specialist Social Worker

Referral Criteria

- **The patient /GP have consented to the referral** (if patient unable to discuss then the main carer should be made aware of the referral. (Palliative care information leaflet for patients &carers available).
- The patient is aged 18 or over and is resident in the Southern Health and Social Care trust geographical area.
- The patient has a diagnosis of a non-curative, progressive illness requiring specialist palliative care.

- The patient/ carer has unresolved complex physical needs and complex social, psychological or spiritual needs which have persisted after palliative care intervention by the core community team e.g. issues of loss, anticipatory grief and pre bereavement.
- The referral has been discussed with a member of the specialist community palliative care team.

Response to referral may be in accordance with the levels below -

Level 1 – Advice and information may be accessed by community/primary health care professionals from the specialist team. The specialist team will have no direct contact with the patient.

Level 2 – The specialist will offer a short term intervention with the patient/family when specific problems need their input. This will be jointly with another community team and the patient will not be held on the community MD specialist palliative care caseload.

Level 3 – The patient and/or family have unresolved complex needs requiring ongoing assessment and review by the specialist team. The patient is accepted onto the community MD specialist palliative care caseload

Once a response has been agreed via telephone, the team referral form should be completed and sent to the team single point of access – **community.mdpallcare@southerntrust.hscni.net.**

GPs can also make a referral via CCG.

What Does the Team Provide?

Short term specialist interventions in complex cases that may include –

- To provide specialist assessment and treatment planning (including prescribing) at or as close to home as possible for people with specialist palliative care needs.

- Support the patients and those important to them to plan for future care and avoid inappropriate hospital attendance/admission.
- Physical symptom management, emotional, spiritual, social or psychological support for patients and their families with palliative diagnoses.
- Signposting to appropriate trust and voluntary services.
- Liaison with colleagues in other services and across care sectors throughout the patient journey in order to promote seamless care.
- Education and training.

Heart Failure Service

Service description

The Heart Failure Service is a dedicated community based Specialist Nurse Led service for adults who have been diagnosed by echocardiogram with left ventricular dysfunction, with an estimated ejection fraction of <40%. The Specialist Heart Failure Nurses collaborate closely with primary, community and secondary healthcare professionals providing a multidisciplinary approach to the management of these patients to reduce mortality, unnecessary hospital admissions and ED attendances and improve quality of life (Blue 2001, NICOR 2013). Research has shown that nurse led heart failure services can be effective in assessing patient needs, optimising care and improving the uptake of evidence based pharmacological treatments. The service is available Monday – Friday, 9am to 5pm.

Key Principles of the Heart Failure Service

- To provide specialist assessment and treatment planning (including prescribing) at or as close to home as possible for people with a diagnosis of left sided ventricular failure
- Effective co-ordination of clinical and therapeutic interventions to achieve best outcomes for patients
- To improve the management of patients with heart failure
- To reduce mortality and improve quality of life in patients with heart failure
- To avoid unnecessary hospital admission or ED attendance

- To facilitate early discharge from a planned or unplanned admission
- To provide a seamless service between primary and secondary care
- To recognise when a patient is approaching end of life and support the process of advanced care planning.

COPD Team

Service description

The Specialist COPD team is a dedicated multidisciplinary community based team which provides an enhanced service for the early assessment of patients with a diagnosis of COPD, prevention of hospital admission by offering home based treatment of exacerbation, enhanced self-management and long term disease management through the provision of individualised self-management programmes and pulmonary rehabilitation (home and class based), early facilitated discharge for patients presenting to SHSCT Hospitals and ongoing care at home. The team are also responsible for the delivery of the Home Oxygen Assessment and Review service (HOSAR) for patients living with long term oxygen therapy for the treatment of a range of underlying medical conditions. The team work closely with multidisciplinary colleagues based in primary, community and acute care settings. The service is available Monday – Friday, 9am to 5pm; Saturday, Sunday and Bank Holidays 11am – 4pm.

Key Principles of the COPD Service

- To provide specialist assessment and treatment planning / response to exacerbation at or as close to home as possible for people with a diagnosis of COPD
- Effective co-ordination of clinical, therapeutic and rehabilitation interventions to achieve best outcomes for patients (interventions include; Breathlessness management, relaxation, anxiety management, energy conservation , chest clearance, posture and range movement to minimise loss of lung capacity, relief of pain resulting from acute exacerbation, exercise tolerance and function)

- To improve the long term condition management of patients with COPD to include individual self-management programmes, access to pulmonary rehabilitation, HOSAR and support to plan for end of life care
- To reduce mortality and improve quality of life in patients with COPD
- To avoid unnecessary hospital admission or ED attendance
- To facilitate early discharge from a planned or unplanned admission
- To provide a seamless service between primary and secondary care

Specialist Continence Team

Service description

The Specialist Continence Service is a dedicated community based Specialist Nurse Led service for adults who have presented with a range of bladder or bowel problems, usually associated with an underlying medical or surgical condition. The Specialist Continence Nurses collaborate closely with primary, community and secondary healthcare professionals providing a multidisciplinary approach to the care of these patients to reduce unnecessary hospital admissions and ED attendances for those with indwelling urinary catheters, they offer assessment of individual patient needs, optimising care through individualised treatment / management plans, and support patients treated using evidence based pharmacological treatments. This trustwide service is available Monday – Friday, 9am to 5pm.

Key Principles of the Continence Service

- To provide specialist nursing interventions to achieve and maintain the highest possible standards of continence care.
- To provide Nurse-Led follow-up services for patients with a range of bladder and bowel dysfunctions
- To support people with the long term management of urinary catheters including the provision of a trial removal service for people presenting with urinary retention
- Prevention of unnecessary calls to GP OOH's services and emergency departments for the management of catheter related problems

- To act as a key worker and enable patients and their carers to navigate their preferred treatment pathway
- To offer shared decision making and promote self-management of continence
- To raise public awareness of bladder and bowel problems.
- To promote knowledge transfer with respect to continence care to core nursing staff both within the Trust and Private sector care settings.

Acute Care at Home (AC@H)

Service Description

AC@H is a dedicated Consultant Geriatrician led multidisciplinary team whose primary focus is on maintaining older people at home in the event of an acute illness or unexpected deterioration in health. The service provides triage, assessment, diagnosis and treatment as an alternative to in-patient care specifically to those at risk of or potentially requiring admission to hospital, i.e. in the absence of such care, they would require inpatient treatment. AC@H is a time limited service – normally no longer than 7 days, and frequently 3 or 4 days or less.

Key Principals of Acute Care at Home Service

- Provide rapid assessment and treatment for older people living in their own home (including nursing and residential homes).
- Effective co-ordination of clinical, therapeutic and social interventions to achieve best outcome for the patient.
- Can take place in one or more types of setting – patient's home, care home, clinic setting
- Daily multidisciplinary team meetings to update treatment plans, review goals and plan for discharge/transfer
- Recognises the importance of the role of carers and signposts for carer's assessment when required
- Involves cross professional working, single assessment framework, patient held records and shared protocols

GPOOH Service

To provide a comprehensive, safe and efficient Urgent Primary Care Out of Hours Service to the N Ireland population, the non-resident transient population who are entitled to General Medical Services (GMS) for primary care urgent conditions that cannot wait, until the patient's own GP surgery is next open and also to visiting patients exercising rights in cross-border healthcare under Directive 2011/24/EU.

Step Up Intermediate Care (Rehabilitation)

It is essential for all ICS Rehabilitation referrals that **rehabilitation potential is identified**.

Criteria

- Medically fit for rehab – medical consent
- Over 65 years of age
- Lives within Southern Trust
- Requires input of **2 professions** – Social Worker, Occupational Therapist, Physiotherapist
- Rehabilitation potential identified

Step up from GP and Community services

Rapid recent deterioration;

Timely intervention to prevent admission to Nursing Home/Residential Home or hospital setting;

Facilitate return to previous functional level.

Home IV Service

The Home IV service consists of an IV coordinator who will assist to facilitate early discharge of medically stable patients form Acute or Non Acute Hospitals. The service is provided in the community by the core district nursing teams with over sight from the IV coordinator who will act as a link between the core teams and the discharging consultant.

Key aims of the Service

- The aim of the community IV therapy service is to provide high quality; evidence based intravenous therapy nursing to patients in a community setting. The service aims to be comprehensive, flexible and easily accessible offering a wide range of IV antibiotic therapies for a variety of conditions.

- The purpose of the IV therapy service is to prevent hospital admissions and/or facilitate early discharge. This in turn frees up acute hospital beds by decreasing length of hospital stay

- Improve patient safety by reducing the risk of infection and improve choice by enabling patients to stay in their homes.

APPENDIX 5

Literature Review

Dr Rachel Doherty
August 2017 v0.2

An overview of models of urgent and emergency care and their effectiveness

Contents

Executive Summary

In the face of continuously rising demands, urgent and emergency health care services around the globe are adopting alternative models of care in order to remain safe and sustainable. This paper provides an overview of models of urgent and emergency care and their effectiveness. A rapid review methodology has been used to provide a narrative summary.

Relevant regional and UK policy and guidance, which highlight strategic directions and core principles for unscheduled care and improving patient flow, are outlined. The results and conclusions of six recent comprehensive evidence reviews examining models of urgent and/or emergency care, published by academic sources within the UK from 2014-17, are summarised. Three of these reviews have focused specifically on initiatives in older people.

Specific models of care of local interest including paramedic protocols, minor injury units, acute care at home, acute medical units and telemedicine are also examined.

The wide scope of this review and numerous models outlined reflects the reality of the complexity of urgent and emergency care systems. Many of the reviews included have categorised the searches and initiatives examined into multiple themed areas of work. Inconsistency in terminology, with a variety of names used for similar models, adds further complication.

Although the evidence base on the effectiveness of models of urgent care is improving it remains in development, with gaps in particular in relation to assessment of economic impacts and cost effectiveness. Whilst strong positive evidence has emerged for some models including 'ambulance/paramedic triage to the community, condition-specific rehabilitation, additional clinical support to people in nursing and care homes, improved end-of-life care in the community, remote monitoring of people with certain long-term conditions and support for self-care' [20], it is also recognised that absence of evidence may not necessarily equate to negative outcomes in other interventions , particularly in small scale changes. However this reinforces the need for robust evaluations, of newer models of care going forward, and should not be underestimated.

The importance of the impact of organisational, individual and behavioural factors on local implementation, use of care, and success are also highlighted. [20] Imison et al advise that '*where schemes have been most successful they have: targeted particular patient populations (such as those in nursing homes or the end of life); improved access to specialist expertise in the community; provided active support to patients including continuity of care; appropriately supported and trained staff; and addressed a gap in services rather than duplicating existing work*' [20].

However they also urge caution regarding the real need for investment when 'shifting the balance of care ' reiterating that many of the models examined ' *place additional responsibilities upon primary and community care, at a time when they are struggling with rising vacancies in both medical and nursing staff, and an increasing number of GP practices are closing. Addressing these issues is a necessary precursor to success*.' [20]

Background

Across the world urgent and emergency care services are facing ever increasing pressures, as demand for acute care continues to rise. As a result, health care systems both within the UK and internationally are having to develop alternative models of care, with smarter, more efficient ways of working to improve patient flow and deliver unscheduled care that optimises patient outcomes , experience and value within the finite health care resources at our disposal. Health and Social Care in Northern Ireland (HSCNI) is also committed to delivering healthcare at the '*right time and right place*' [1i] and the recent Bengoa report [2]and Delivering Together [3]strategy have reiterated '*the need to re-organise how we do things - and that we need to do this in partnership with the people who use the service and those who work in it.*'

In response to pressure on emergency department services in Daisy Hill Hospital, the Daisy Hill Hospital Pathfinder group was established in June 2017 to develop an exemplar model to meet the acute unscheduled care needs for the Newry and Mourne population. To inform this work a needs assessment subgroup are exploring the health needs of the local population and considering the current evidence base on modern models of timely care.

Aim

The aim of this paper is to provide a rapid overview of the evidence base on models of urgent and emergency care and their effectiveness.

Methods

A rapid review approach of examining existing reviews was adopted. This incorporated a comprehensive electronic search of the HONNI databases (Cochrane, Medline, Cinahl, Health Management Information Consortium, King's Fund, Trip) NHS Evidence and Google Scholar search engines for review articles on models of urgent and emergency care and their effectiveness. Publications were limited to those published in English between 2007 – August 2017 and include academic literature, grey literature, guidance and policy documents. Due to the broad scope of the work and time limitations, a narrative summary has been produced.

Urgent and emergency care

When considering models of urgent and emergency care it is important to note that the authors of a recent literature review on improving urgent care for older people [4] warned that '*there is no explicit consensus on what the term 'urgent care' means'*. Appleton et al [4] highlight that whilst the

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[1] Donaldson L et al. *The right time- the right place An expert examination of the application of health and social care governance arrangements for ensuring the quality of care provision in Northern Ireland* DOH; Belfast: 2014 accessed at: https://www.healthni.gov.uk/sites/default/files/publications/dhssps/donaldsonreport270115_0.pdf

[2] Bengoa R et al. Systems, Not Structures - Changing Health and Social Care DOH;Belfast: 2016 Accessed at: https://www.health-ni.gov.uk/publications/systems-not-structures-changing-health-and-social-care-full-report

[3] DHSSPSNI *Health And Wellbeing 2026 Delivering Together* DOH: Belfast; 2016 accessed at: https://www.health-ni.gov.uk/sites/default/files/publications/health/health-and-wellbeing-2026-delivering-together.pdf

[4] Appleton S et al. *What the evidence tells us about improving urgent care for older people* NHS Confederation;London:2016 accessed at: http://www.nhsconfed.org/~/media/Confederation/Files/Publications/Documents/Growing%20Old%20Together%20-%20What%20the%20evidence%20tells%20us.pdf

Department of Health in England [5] describe urgent (and emergency) care as 'the *range of healthcare services available to people who need medical advice, diagnosis and or treatment quickly and unexpectedly'* the Patients Association and Royal College of Emergency Medicine[6] define urgent and emergency care as 'those *needs that the patient perceives require a response on the same day they arise*'. They caution that these definitions are 'among *many examples ... that appear in the literature and conflate emergency and urgent care ... while this may be inevitable because of the linkage of the two in terms of service delivery it nevertheless contributes to the potential for misunderstanding the nature of urgent care*.' To add further complexity, the terms 'acute care' and 'unscheduled care' are also frequently used interchangeably with urgent and emergency care. With this in mind, each of these terms were included in the literature searches to inform this work.

Relevant regional policy and guidance

In September 2014 The Royal College of Emergency Medicine[7] published 18 recommendations for unscheduled and emergency care in Northern Ireland, which were themed into 6 key areas as summarised below:

Theme 1: Access to unscheduled and emergency care: an integrated systems approach

- Each Trust should develop and maintain an updated Directory of Services that allows direct access
- Current best practice for patients bypassing the Emergency Department to specialist wards and units should be expanded throughout the NHS.
- Acute Care specialties with responsibilities for providing unscheduled care must have a designated assessment area and capacity within their own unit to receive patients to prevent congestion and Exit Block in the Emergency Department
- Every Emergency Department should consider having a co-located and integrated Primary Care Out-of-Hours facility.

Theme 2: Improving patient flow and preventing exit block

- At times of peak activity, the system must have the capacity to deploy or make use of extra senior staff
- Senior Emergency Physicians should have admitting rights to all specialties.
- Ambulatory Care models should be developed and expanded for Emergency Care as a matter of urgency.
- Focus on effective hospital discharge processes 7 days a week.
- Community teams should be physically co-located with the Emergency Department to bridge the gap between hospital and primary and social care especially for vulnerable patients.

Theme 3: Future workforce models

- Every Emergency Department should have the appropriate skill mix and workforce to deliver safe, effective and efficient care.

[5] Department of Health Guidance for the commissioning integrated urgent and emergency care Urgent and emergency care definition Feb 2011 accessed at www.dh.gov.uk/en/Healthcare/Urgentandemergencycare/index.htm

[6] The Patients Association/Royal College of Emergency Medicine Time to ASct urgent care and AE: the patient perspective PA/RCEM; London: 2015

[7] The College of Emergency Medicine *Recommendations for unscheduled and emergency care in Northern Ireland* Belfast; 2014

• Senior decision makers at the front door of the hospital 16 hours per day, and in surgical, medical or paediatric assessment units, should be normal practice, not the exception. • All trainee doctors on acute specialty programmes should rotate through the Emergency Department • Further review and development of established and alternative workforces should occur as a matter of urgency. Examples include Emergency and Advanced Nurse Practitioner roles.
Theme 4: 7 day working • Community and social care must be integrated effectively and delivered 7 days a week • The delivery of a 7 service in the NHS must ensure that emergency medicine services are delivered 24/7, with round the clock senior decision maker and full diagnostic support , including appropriate access to specialist services.11 This will require additional resources • Delivering 7 24/7 services requires new contractual arrangements that enable an equitable work-life balance.
Theme 5: Information technology • It is essential that each Emergency Department and unscheduled care area has an IT infrastructure that effectively integrates clinical and safeguarding information across all parts of the urgent and Emergency Care system.
Theme 6: Engagement • Structured engagement and involvement between the Emergency Care clinicians, Executive teams of provider Trusts and local commissioners is essential in order to develop a shared vision and delivery strategy.

In addition to these recommendations, in October 2014 the Department of Health in Northern Ireland produced guidance on improving patient flow in health and social care services[8]. The term flow *'describes the progressive movement of people, equipment and information through a sequence of processes. In healthcare, the term denotes the flow of patients between staff, departments and organisations along a pathway of care*'[9]. The evidence base on the importance of patient flow is well established and the consequences of poor flow radiate across the entire healthcare system including urgent and emergency care [10.] These negative impacts can include '*EDS become crowded, stressful and unsafe, patients are admitted as 'outliers' to wards that are not best suited to manage their care , clinical outcomes are measurably worse, particularly for frail older people, staff are overstretched and and patients and carers time is wasted*.'[10] Therefore the Department of health guidance [8] provided a 'summation *of what's worked elsewhere what's currently delaying patients …..based on direct feedback from ward staff and what's therefore likely to have the highest impact in terms of improving patient flow'.* It includes a flow chart summary of the suggested overview of ways to improve patient flow across the system in primary care, ED and secondary care, (see Annexe

[8] DHSSPSNI Improving patient flow in HSC Services DHSSPSNI Belfast; 2014 accessed at: https://www.health-ni.gov.uk/sites/default/files/publications/health/uctg-improving-patient-flow.pdf

[9]NHS England *Transforming urgent and emergency care services in England. Safer, faster, better: good practice in delivering urgent and emergency care. A guide for local health and social care communities* London 2015 . accessed at http://www.england.nhs.uk/wp-content/uploads/2015/06/trans-uec.pdf

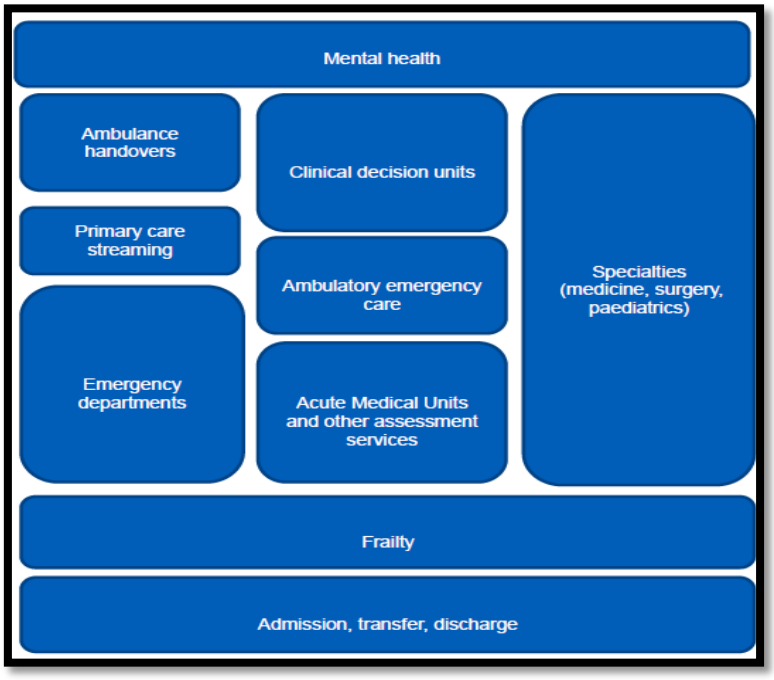
[10] NHS Improvement Focus on improving patient flow- priorities for acute hospitals NHS Improvement: London: 2017 accessed at https://improvement.nhs.uk/uploads/documents/Patient_Flow_Guidance_2017___13_July_2017.pdf

1). It also outlines '*the immediate and highest impact actions for Trusts to improve inpatient flow and reduce ED overcrowding'* as:

1. **Radiology-** provide full radiology services including CT, MRI & ultrasound scans 7-days a week at a capacity that enables same day/next morning radiological Investigation and reporting for all radiological work
2. Support **consultant twice daily decision-making** for all inpatients– enable a consultant to review all inpatients twice a day.
3. **Ward rounds–see potential discharges first** to allow the discharge process to start as early in the day as possible
4. **Streamline the process from decision to discharge** (or anticipate discharge) to the time when the patient goes home.
5. Establish a **dedicated minors stream in ED–**establish a dedicated minors stream (category 4&5) 7-days a week, at least 9am-9pm ,or longer if demand exists

Many of the themes and practical suggestions from this paper are mirrored in a recent NHS Improvement *Good Practice Guide: Focus on improving patient flow* [10]. It also outlines '10 areas for focus' in figure 1 below and details core principles for consideration in each of these areas.

Figure 1: The 10 Areas for focus [10]



Relevant policy and guidance across the UK

Policy and guidance developments related to improvements in urgent and emergency care in England, Scotland and Wales reiterate many of the themes highlighted above regarding patient flow and a whole systems approach.

NHS England

The Primary Care Foundation [11]have summarised key principles for system development in urgent and emergency care as:

- Build care around patients not existing services
- Simplify an often complicated and fragmented system
- Ensure urgent care systems work together rather than pulling apart
- Acknowledge prompt care is good care
- Focus on all stages of an effective commissioning cycle – (assess, plan, contract, monitor and revise)
- Offer clear leadership across the system while acknowledging the complexity of the system

In a review of urgent and emergency care in Bradford in 2015 Fell [12]et al summarise other recent key policy developments in England as:

- **Acute and Emergency Care: Prescribing the Remedy 2013.[13] (RCP, CEM, RCPH, RCS)**

Recommendations focused on:

1. Access and alternatives
2. Skill mix / case mix
3. Integration and communities
4. Seven-day service
5. Funding / fair reward
6. Information technology

- **Transforming urgent and emergency care services in England End of Phase 1 Engagement Report , NHS England 2013**[14].

This review set out a simple vision of a system that ended in a Major Emergency Centre and worked back to self- care. It included a number of options for meeting needs closer to home (the subtext of

[11] Carson D, Clay H, Stern R. *Breaking the mould without breaking the system*. Primary Care Foundation 2011. http://www.primarycarefoundation.co.uk/images/PrimaryCareFoundation/Downloading_Reports/Reports_and_Articles/Urgent_Care_Commissioning/Breaking_the_Mould_RELEASE.pdf
[12] Fell G et al. Urgent and emergency care review Bradford 2015 accessed at: http://www.yhahsn.org.uk/wp-content/uploads/2015/09/YH-Urgent-and-Emergency-Care-Review-Sept-2015.pdf
[13]RCP Acute and emergency care prescribing the right remedy RCP; London: 2013 accessed at https://www.rcem.ac.uk/docs/Policy/acute_and_emergency_care_prescribing_the_remedy_FINAL%20REPOR

14.Transforming urgent and emergency care services in England End of Phase 1 Report London 2013 Accessed via http://www.nhs.uk/NHSEngland/keogh-review/Documents/UECR.Ph1Report.FV.pdf

which is that it is in a less expensive but equally safe setting). The features of the vision that were specifically highlighted were:

- Self-care.
- Comprehensive and standardised care planning.
- Continue to support a 111 type system. Widening the DOS available to 111 handlers to increase the range of services a person could be routed to, and the ability to directly book an appointment.
- Increase accessibility to same every day access to primary care and community services.
- Harness the skills, experience and accessibility of community pharmacists.
- Develop 999 ambulances so they become mobile urgent treatment services, not just urgent transport services.
- Support the co-location of community-based urgent care services in coordinated Urgent Care Centres.
- Introduce two levels of hospital based emergency centre - "Emergency Centres" and "Major Emergency Centres".
- Implement the findings of the NHS Services, Seven Days a Week Forum.
- Continue to develop Emergency Care Networks

The review advised that '*there is a considerable evidence base for what works well'.*

- **Transforming Urgent and Emergency Care Services in England. Safer, Faster, Better: Good Practice in Delivering Urgent and Emergency Care. A Guide for Local Health and Social Care Communities (NHS England, 2015)[9]**

This paper was developed to help frontline providers and commissioners deliver safer, faster and better urgent and emergency care to patients of all ages, collaborating in urgent emergency care networks to deliver best practice. It highlights design principles drawn from good practice, which have been tried, tested and delivered successfully by the NHS in local areas across England. It also summarises and provides links to support '*some top, evidence-based principles that everyone should know*':

- Preventing crowding in emergency departments improves patient outcomes and experience and reduces inpatient length of stay (See Exit Block Campaign)
- Getting patients into the right ward first time reduces mortality, harm and length of stay (See Impact on Patients, Hospitals and Healthcare Systems).
- Patients on the urgent and emergency care pathway should be seen by a senior clinical decision maker as soon as possible, whether this is in the setting of primary or secondary care. This improves outcomes and reduces length of stay, hospitalisation rates and cost (See Benefits of Consultant Delivered Care).
- Daily senior review of every patient, in every bed, every day, reduces length of stay and costs of care (See BMJ Open Access - Cost Benefit Analysis).
- Frail and vulnerable patients, including those with disabilities and mental health problems of all ages, should be managed assertively but holistically (to cover medical, psychological, social and functional domains) and their care transferred back into the community as soon

as they are medically fit, to avoid them losing their ability to self-care (See Acute Care Tool Kit 3).

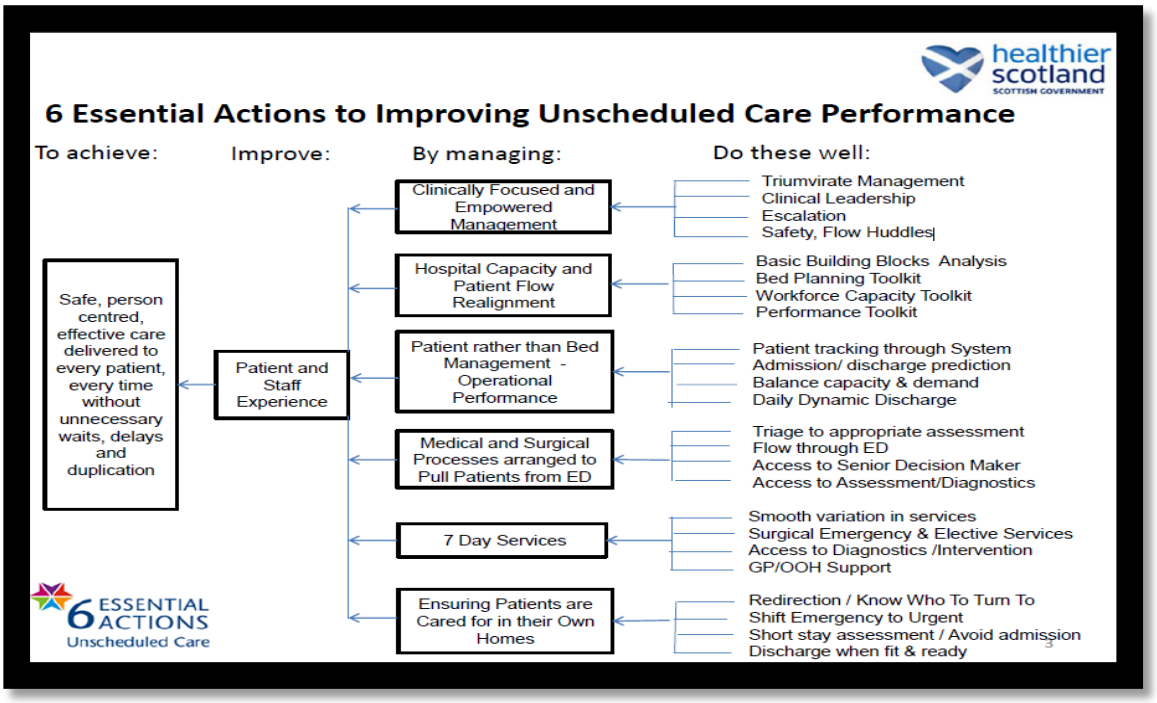
- Ambulatory emergency care is clinically safe, reduces unnecessary overnight hospital stays and hospital inpatient bed days (Acute Care Toolkit 10).
- Acute assessment units enhance patient safety, improve outcomes and reduce length of stay (See Effectiveness of Acute Medical Units in Hospitals).
- Mental health problems account for around five per cent of A&E attendances, 25% of primary care attendances, 30% of acute inpatient bed occupancy and 30% of acute readmissions. Mortality and morbidity ratios amongst people with mental illness are much higher than amongst the general population (See Physical Morbidity and Mortality in People with Mental Illness). Well-resourced liaison mental health services provided seven days a week and 24-hour a day are cost effective and an essential part of any urgent and emergency care system (See Liaison Metal Health Services).
- Continuity of care is a fundamental principle of safe and effective practice within, and between, all settings (See Continuity of Care for Older Hospital Patients and Which Features of Primary Care affect Unscheduled Secondary Care use). The sharing of and access to key patient information is essential to this.
- Getting patients to definitive, specialist hospital care can be more important to outcomes than getting them to the nearest hospital for certain conditions, such as stroke, major trauma and STEMI (for examples, See BMJ Impact of Centralising Acute Stroke Services in English Metropolitan Areas ,Effect of Regional Centralisation on Trauma Volume and RCP Journal - Consultant Delivered MDT).
- Properly resourced intermediate care, linked to general practice and hospital consultants, can prevent admissions, reduce length of stay and enable home based care and assessment, including supporting 'discharge to assess' models (See National Audit of Intermediate Care - Summary Report 2014: and Avoidable Acute Hospital Admissions in Older People).

NHS Scotland

Improving unscheduled Care across Scotland is a key ministerial priority for Scottish Government.[15] Through the National Unscheduled Care – 6 Essential Actions Improvement Programme (figure 2) they aim to improve the timeliness and quality of patient care from arrival to discharge from the hospital and back into the community.

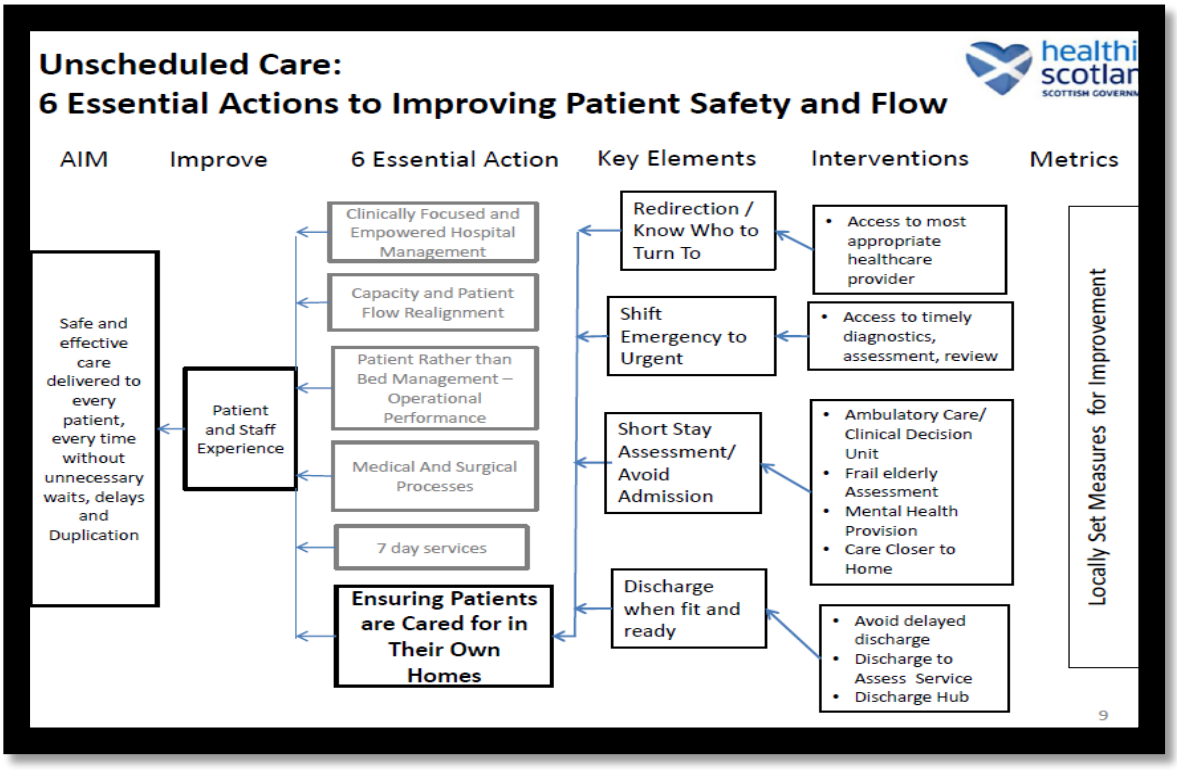
[15] http://www.gov.scot/Topics/Health/Quality-Improvement-Performance/UnscheduledCare

Figure 2: 6 Essential Actions to improving unscheduled care performance (accessed via http://www.qihub.scot.nhs.uk/media/943857/6%20essential%20actions%20to%20improve%20unscheduled%20care.pdf)



Within this work they have summarised key priorities for each of these actions and 'ensuring patients are cared for in their own homes'(Figure 3) is particularly relevant when considering models of urgent and emergency care.

Figure 3: Unscheduled care: Ensuring patients are cared for in their own homes accessed via: http://www.qihub.scot.nhs.uk/media/943857/6%20essential%20actions%20to%20improve%20unscheduled%20care.pdf



NHS Wales

In 2011 the unscheduled care board of NHS Wales, published a report on Ten High Impact Steps to Transform Unscheduled Care. They are summarised as: [16]

- Step 1: Agree a Shared Vision for Unscheduled Care Services
- Step 2: Define How Improvement is to be Measured Across the Whole System.
- Step 3: Improve Telephony and Care Co-ordination
- Step 4: Improve Urgent Primary Care Access
- Step 5: Expand and Integrate Out of Hours Services
- Step 6: Get the Right Message Out to Service Users /Health & Social Care Workers
- Step 7: Target Frequent User Groups
- Step 8: Improving the Flow Through ED
- Step 9: Improve Discharge Planning
- Step 10: Target the Most Important Pathways

Rapid reviews of evidence on models of urgent and emergency care

In a rapid review of the effectiveness of different models of delivering urgent care in 2015, Turner et al from the University of Sheffield [17] conducted 5 separate reviews linked to themes in the NHS England review [14]. This included: (1) trends in and characteristics of demand ;(2) telephone triage and advice; (3) management of patients in the community by ambulance clinicians; (4) models of service delivery in the Emergency Department and (5) Emergency and urgent care networks. In total 45 systematic reviews and 102 primary research studies were included across all reviews the report includes tables describing and assessing the quality of each study including quality assessment of the systematic reviews and PRISMA flow diagrams for searches conducted. In relation to each of the 5 areas reviewed they concluded that:

1. There is remarkably little empirical evidence that can fully explain the increases in demand for urgent care.
2. There is an existing, substantial evidence base about the operational and clinical effectiveness of telephone based triage and advice services for management of requests for urgent healthcare. Overall, these services provide, appropriate and safe decision making, patient satisfaction is generally high as is the likelihood that patients will accept advice although this varies depending on the clinician providing it. There is little evidence though on efficiency of these services from a whole system perspective.
3. Extended paramedic roles have been implemented in various health systems and settings and appear to be successful at reducing transports to hospital, making safe decisions about the need for transport, delivering acceptable care out of hospital and are potentially cost-effective.
4. The evidence on co-location of GP services with ED indicates there is potential to improve care. The attempt to summarise the evidence about wider ED operations proved to be too complex and further focused reviews are needed

[16] Unscheduled Care Board *Ten high impact stapes to transform unscheduled care* Wales 2011 accessed at: http://www.wales.nhs.uk/ourservices/unscheduledcareimprovement

[17] Turner J et al. *What evidence is there on the effectiveness of different models of delivering urgent care*? A rapid review 2015 accessed at: https://www.sheffield.ac.uk/polopoly_fs/1.482027!/file/UrgentCareReview.pdf

5. There is no empirical evidence to support the design and development of urgent care networks.

They also caution that '*although there is a large body of evidence on relevant interventions much of it is weak with only very small numbers of randomised controlled trials identified. Evidence is dominated by single site studies many of which were uncontrolled*.'

In 2015, the Midlands and Lancashire commissioning support strategy unit also produced a rapid evidence review of urgent care models[18]. Urgent care models were defined as 'walk in centres, minor injury units, and urgent care centres,' and the study reviewed and summarised the findings and limitations of 41 publications, with supporting tables displaying this information. Aldridge advises that '*the evidence base for urgent care models, specifically walk-in centres, minor injury units, and urgent care centres, includes many small scale studies of varying quality and there are few syntheses*.

She also highlighted the following points:

- interventions which have a weak or uncertain evidence base are not necessarily ineffective - the evidence is too limited to draw firm conclusions
- there is considerable variation in definitions and composition of services making generalisability difficult;
- Some changes, particularly effectiveness and cost effectiveness, will need time to embed.
- not all studies assess effectiveness or the data quality makes this difficult to do so;

Whilst advising that the current evidence base provides insufficient evidence to draw firm conclusions about the impact of walk-in centres on other healthcare services or the costs of such care, Aldridge reiterates the importance of recognising that patients' decisions can greatly influence the use of other healthcare services. She references the early work of Coleman et al. [19] estimating the potential of general practice, minor injury units, walk in centres and NHS Direct to reduce non-urgent demands on accident and emergency (A&E) departments, which suggested that it could have a much lower impact than expected.

Indeed some of these concerns are shared by Imison et al of the Nuffield Trust in a recent research report[20] examining moving care out of hospital (March 2017). They advise that '*succesfully changing patterns of service use requires access to appropriate and timely primary care, as well as high levels of trust in these alternative services. Trends in use of A&E, and the significant increase in attendances in 2003 following the introduction of minor injury and specialist services, highlight an important consequence of the initiatives described in this section (*section 2 redesigning urgent and emergency care pathways*): **supply-induced demand**. Many of the initiatives we looked at increased*

[18] Aldridge S. Urgent Care Models Rapid evidence review Midlands and Lancashire commissioning support unit 2015 accessed at: https://midlandsandlancashirecsu.nhs.uk/about-us/publications/service-publications/the-strategy-unit/30-urgent-care-models-march-2015/file

[19] Coleman P et al. Will alternative immediate care services reduce demands for non-urgent treatment at accident and emergency? *Emerg Med J.* 2001;18(6):482–487

[20] Imison C et al. *Shifting the balance of care Great expectations*. Research Report. Nuffield Trust: 2017 Full report accessed at: https://www.nuffieldtrust.org.uk/files/2017-02/shifting-the-balance-of-care-report-web-final.pdf

contacts with the NHS without equivalent reductions in the use of A&E. ***In some cases, this has increased overall costs'.***

Drawing on a review of sustainability and transformation plans (STPS) and an in-depth literature review of 27 initiatives to move care out of hospital, Imison et al examined their impacts, particularly on cost and what has contributed to their success or otherwise. This included reviewing academic and grey literature, with a particular focus on robust evidence from randomised controlled trials (RCTs), Cochrane reviews and other systematic reviews, to find the most reliable evidence. However, they describe the evidence base as '*generally of poor quality with little rigorous quantitative evidence available, particularly on efficacy and cost effectiveness*.'
They have grouped initiatives into 5 areas of work:

1. Redesigning elective care pathways
2. Redesigning urgent and emergency care pathways
3. Avoiding hospital admission and accelerating discharge
4. Managing 'at risk populations'
5. Support for patients to care for themselves and access community resource

Evidence summaries have been produced for each category, and a very useful summary of the evidence base for an overview of all initiatives, which are classified according to the strength of supporting evidence, is also provided. Figure 4: Summary of evidence

Overview of initiatives

Relative strength of evidence of reduction in activity and whole-system costs	Initiative
Most positive evidence	• Improved GP access to specialist expertise • Ambulance/paramedic triage to the community • Condition-specific rehabilitation • Additional clinical support to people in nursing and care homes • Improved end-of-life care in the community • Remote monitoring of people with certain long-term conditions • Support for self-care
Emerging positive evidence	• Patients experiencing GP continuity of care • Extensivist model of care for high risk patients • Social prescribing • Senior assessment in A&E • Rapid access clinics for urgent specialist assessment
Mixed evidence, particularly on overall cost reduction	• Peer review and audit of GP referrals • Shared decision-making to support treatment choices • Shared care models for the management of chronic disease • Direct access to diagnostics for GPs • Intermediate care: rapid response services • Intermediate care: bed-based services • Hospital at Home • Case management and care coordination • Virtual ward
Evidence of potential to increase overall costs	• Extending GP opening hours • NHS 111 • Urgent care centres including minor injury units (not co-located with A&E) • Consultant clinics in the community • Specialist support from a GP with a special interest • Referral management centres

Imison et al [20] conclude that where schemes have been most successful, they have:

- **targeted particular patient populations (such as those in nursing homes or the end of life);**
- **improved access to specialist expertise in the community;**
- **provided active support to patients including continuity of care;**
- **appropriately supported and trained staff;**
- **and addressed a gap in services rather than duplicating existing work**

They also caution that:

- '*the implementation challenges involved in shifting care out of hospital are considerable and even initiatives with great potential can fail…. (a) wide range of system, organisational and individual factors (can) impact upon their feasibility and effectiveness*
- *'Many schemes rely on models to identify 'at risk ' groups that are deficient and fail to identify patients genuinely at risk of increased hospitalisation'*
- *Many initiatives we examine place additional responsibilities upon primary and community care, at a time when they are struggling with rising vacancies in both medical and nursing staff, and an increasing number of GP practices are closing. Addressing these issues is a necessary precursor to success.*'

Reviews focusing on preventing emergency admissions in older people

In 2014 [21] the East Midlands Academic Health Science Network produced an evidence based review of rapid assessment community service and the prevention of emergency admissions for older people. The review identified 201 papers with the report drawing directly from 59 references. However, tables summarising the included studies, their quality or strength of evidence are not provided.

Overall the evidence is consistent with earlier reviews[22] . Additional interventions that have specific reference to geriatric interventions were found to have mixed evidence to support of them.

• Interventions at different stages of the continuum of care may contribute to reduced unplanned admissions. For example, at one end of the care spectrum, structured discharge planning[23] and at the other end of the spectrum, areas demonstrating lower bed use, were associated with lower readmission rates.[20]

• As a form of integrated care, there is no evidence to show that intermediate care in the community per se is effective in reducing admissions. [22]

[21] East Midlands Academic Health Science Network Rapid assessment community service and the prevention of emergency admissions for older people: an evidence review 2014 accessed at: http://emahsn.org.uk/images/Section%208%20-%20Resource%20hub/Sparks%20and%20Sparklers/Sparkler_2_v6__SP2V1_FINAL_10-08-14.pdf

[22] Purdy S et al 2012 Interventions to reduce unplanned hospital admission: a series of systematic reviews NIHR 2012 accessed at: http://www.bristol.ac.uk/media library/sites/primaryhealthcare/migrated/documents/unplannedadmissions.pdf

[23] Shepperd, S et al Discharge planning from hospital to home. *Cochrane Database of Systematic Reviews* 2013

• There is mixed evidence that early supported discharge to a hospital at home services reduces readmission rates, although there is less risk of patients being admitted to long terms residential care [24].

- There is mixed evidence in relation to community based rapid response teams and their effectiveness in preventing admission;[22, 25, 26]
- Evidence that interventions in ED, such as acute assessment units and observation wards, reduce the number of admissions is inconsistent, with "the impact of rapid access geriatric clinics found to be lacking robust evidence[27]. However, the use of 'discharge to assess' approaches[28], as affecting rapid discharge, has been shown to reduce both admissions and subsequent length of stay when patients are admitted.
- There is inconclusive evidence that case management for older patients, whether initiated in hospital or the community, reduces avoidable admissions [29]
- There is some evidence that hospital based rapid assessment teams may reduce unplanned admissions [27].
- There is clear evidence that the use of Comprehensive Geriatric Assessment reduce readmissions [30], [31] However the evidence shows that the positive impact of Comprehensive Geriatric Assessment in hospitals is primarily down to specialist geriatric units, and not the presence of specialist geriatric teams that cover multiple units.

In 2015 the East Midlands Academic Health Science Network produced a further evidence review of urgent care models for delivering comprehensive geriatric assessment (CGA) for older people living with frailty in urgent care settings[32]. This review identified 20 studies relevant to the issue and five different categories were used to classify the variety of models in these studies, The authors caution that there was however also considerable differences between the models even within each given category. The report includes a summary of the description of each of the studies included and although summary of the quality of each study was not included a summary table outlining nature and strength of evidence of benefit within each category of intervention was provided. The 5 categories were:

[24] Shepperd, S. et al Hospital at home early discharge. Cochrane Database of Systematic Reviews, 2009
[25] Steventon, A et al An evaluation of the impact of community based interventions on hospital use. The Nuffield Trust.2011 http://www.nuffieldtrust.org.uk/sites/files/nuffield/publication/An-evaluation-of-the-impact-of-communitybased-interventions-on-hospital-use-summary-Mar11
[26] Barber, K. & Wallace, C.. Happily independent – configuring the Gwent frailty and wellbeing worker. *Journal of Integrated Care*, 2012:20(5):308-321.
[27] Wright, P. et al The impact of a new emergency admission avoidance system for older people on length of stay and same-day discharges. Age and Ageing, 2013 43(1):116–121
[28] Edwards, N. *Community services. How they can transform care*. The King's Fund.2014 http://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/community-services-nigel-edwards-feb14.pdf
[29] Huntley, A.et al, Is case management effective in reducing the risk of unplanned hospital admissions for older people? A systematic review and meta-analysis. *Family Practice*,2013; 30:266-275.
[30] Ellis, G., et al Comprehensive geriatric assessment for older adults admitted to hospital. *Cochrane Database of Systematic Review*s, 2011
[31] Conroy, S et al. A controlled evaluation of comprehensive geriatric assessment in the emergency department: the "Emergency Frailty Unit". *Age and Ageing*,2014; 43(1):109–114.
[32] East Midlands Academic Health Science Network SPARKLER 7 longer evidence review Urgent care models for delivering comprehensive geriatric assessment for older people living with frailty EASHN 2015 accessed at: http://emahsn.org.uk/images/Section%208%20-%20Resource%20hub/Sparks%20and%20Sparklers/SPARKLER_7_CGA_Final_2016_web.pdf

1. CGA in the community after ED discharge: interventions varied with either multidisciplinary teams delivering the CGA process or various health services professionals aiming to co-ordinate it. Within this category CGA was applied to older people discharged from EDs, either because: a. they had presented with a fall OR b. They were old or at risk of poor outcome
2. Interface and liaison: discharged patients were assessed in urgent care and then the remainder of the CGA process was delivered in the community. Two health professional groups have been studied (nurses and doctors), and in each case the health care professional coordinated the CGA process.
3. Acute frailty units: these units aim to deliver a rapid CGA process in the urgent care setting and facilitate the delivery of the rest of the CGA process elsewhere. These studies were primarily concerned with reducing hospital resources by discharging a higher proportion of attendees.
4. Inpatient urgent care geriatric services: further studies examined other variants of comprehensive assessment in urgent care settings without the use of a specific unit. This consisted of a nurse to coordinate aftercare and a team to co-ordinate inpatient care.

The report concluded that:

- The strongest evidence for benefit was for the provision of a service for people discharged from EDs who suffered falls.
- There was some evidence for the short term benefits of a health visitor hospital outreach team for older people who are discharged from an ED.
- Interface interventions where the aim is to coordinate existing community resources largely Appear to be ineffective.
- There is no robust research evidence to determine whether acute frailty units in urgent care Have beneficial or harmful effects upon health outcomes. Although their introduction is Repeatedly associated with reduced hospital resource use.
- There is a similar lack of evidence for other models of other geriatric interventions in urgent care, and for integrated care models.
- There is no evidence of a dominant, single, over-arching service model for the care of older people with frailty using urgent care.

In 2016 Purdy and colleagues [33] at the university of Bristol, published an evidence report examining alternatives to acute hospital care for people over the age of 65 years old being considered for potentially avoidable admission. The team conducted a systematic review that identified and assessed 19 primary studies and 8 recent systematic reviews relating to 5 main models of care, listed as:

- Interventions initiated by paramedics and other 999 ambulance staff
- Alternatives delivered in hospital A&E (Emergency) Departments
- Admission to a local community hospital

[33] Purdy et al. *Evidence report: alternatives to acute hospital care for people over 65 years of age being considered for potentially avoidable admission* NIHR; University of Bristol :2016 accessed at: http://www.bristol.ac.uk/media-library/sites/primaryhealthcare/documents/managing-uncertainity-PDG-evidence-report.pdf

- Hospital-type services delivered in the patient's own home "hospital at home"
- Hospital-type services delivered in a nursing or care home.

They have included detailed tables describing each of the studies and their limitations and also AMSTAR ratings for systematic reviews. They also summarised relevant NICE guidance. In their conclusions they have advised that:

Intervention	Evidence summary
Paramedic/Emergency Care Practitioner	• 1 RCT and 2 n RCTS • All showed statistically significant reductions in ED attendance and acute hospital admissions. • There were no cost data reported.
Community hospital	• 2 high quality RCTs with only 1 providing useful data • This reports fewer readmissions and less community care needed following a community hospital intervention compared to acute hospital • The remaining RCT reported that 20% of the intervention group were sent to the community hospital. • There were no cost data in either study
ED interventions	• Individual studies investigating specific protocols in the ED for syncope (RCT) and hyperglycaemic patients (nRCT) compared to standard ED care showed they were less likely to be admitted/readmitted with cheaper costs. • 1 nRCT comparing geriatric ED with conventional ED showed comparable outcomes for effectiveness and mortality
Hospital at home	• **The most researched and reviewed of admission avoidance interventions for the older population** • Overall, with the exception of stroke patients, hospital at home appears to be at least comparable to care in an acute hospital in terms of effectiveness and patient safety. • Patient satisfaction appears comparable between hospital at home and care in an acute hospital although there is a limited amount of data • There is a lack of cost data and cost analysis for hospital at home interventions. Limited data from heart failure and COPD studies show savings on initial care but no differences in longer term follow-up. • Hospital at home compared to care in an acute hospital for heart failure patients significantly reduces time to next admission (2 RCTs) with comparable mortality rates between groups (3 RCTs). • Hospital at home for COPD patients compared to care in an acute hospital significantly reduces the number of subsequent admissions (8 RCTs) with comparable mortality rates between groups (7 RCTs). • Hospital at home compared to care in a stroke unit for patients is inferior for all effectiveness and safety outcomes (1 RCT).
Hospital in nursing/care home	• two nRCTs • both showed a significantly reduced length of stay with

	HNCH compared to care in an acute hospital. • There were no cost data

Specific models of care of local interest

Paramedic protocols 'see and treat'

NHS England advise that '*ambulance services play a central role in the provision of urgent and emergency care. Ambulance services and their commissioners should work together to develop a mobile urgent treatment service capable of dealing with more people at scene and avoiding unnecessary journeys to hospital.*' [9]

As outlined above, the work of Turner et al [17] reviewing urgent care models , the recent review by Purdy et al [24] of managing avoidable admissions in over 65s and Imison et al's [20] review of the evidence on re-designing urgent and emergency care pathways have all demonstrated positive evidence for ambulance/paramedic triage to the community.

Imison et al [20] summarise that:

- The 'see and treat' model uses paramedic practitioners with advanced skills to assess, provide immediate treatment and discharge and/or refer patients within the community, where a hospital admission can be avoided[34]
- Secondary telephone triage is used by some services to further assess patients who have first been triaged as low priority when calling for an ambulance [35]
- Both paramedic practitioners and secondary triage in ambulance services can reduce hospital transportations, with the evidence being stronger for paramedic practitioners [35, 17.]
- A systematic review and meta-analysis found paramedic practitioners are significantly less likely to transfer patients to A&E compared with conventional ambulance crews, and more likely to discharge at the scene [36]
- There is conflicting evidence on whether paramedic practitioners are safe and provide appropriate referral in the community[37],[38] , [17]
- A serious concern relates to under-triage, where patients are assessed as lower acuity by paramedics but higher acuity by A&E doctors[39].

They conclude that, of the initiatives assessed around redesigning urgent and emergency care pathways, ambulance/paramedic triage has the strongest positive evidence [20]

[34] Brotherton J *Emergency Services Review Good Practice Guide for Ambulance Services and their Commissioners*.2009
[35] Eastwood K et al. 'Secondary triage in prehospital emergency ambulance services: a systematic review', *Emerg.Med. J.2014*
[36] Tohira H, et al *The impact of new prehospital practitioners on ambulance transportation to the emergency department: a systematic review and meta-analysis.* Centre for Reviews and Dissemination 2013.
[37] Cooper S and Grant 'New and emerging roles in out of hospital emergency care: a review of the international literature', *Int Emerg Nurs* 2009;17: 90–8.
[38] Fraess-Phillips A 'Can Paramedics Safely Refuse Transport of Non-Urgent Patients?' *Prehosp Disaster Med* 2016;31:667–674.
[39] Neeki M et al. Alternative Destination Transport? The Role of Paramedics in Optimal Use of the Emergency Department', *West J Emerg Med* 2016;17: 690–697

Minor Injury units

Urgent care centres 'see and treat' patients with non-serious injuries and illnesses in and out of hours. Minor injury units and walk-in centres are similar in function, except that minor injury units do not deal with primary care conditions[40]. Imison et al [20] advise that

- It was hoped that the introduction of these services would result in patients with less serious conditions using these centres as an alternative to A&E. This has not happened [40, 14]
- There is evidence that they may inflate overall demand [40 , 14, 41]. This has been attributed to the expansion in supply 41 and the confusion created by these alternative services [40].
- There is more support for urgent care services co-located within emergency departments [13] Co-located services can stream patients through one 'front door' and thus reduce A&E attendance.

Figure 5 summarises the strength of evidence of initiatives to redesign urgent and emergency care, including ambulance/paramedic triage and minor injury units,

Figure 5: Evidence on re-designing urgent and emergency care pathways (Imison et al [20])

Redesigning urgent and emergency care pathways

Relative strength of evidence of reduction in activity and whole-system costs	Initiative
Most positive evidence	• Ambulance/paramedic triage to the community
Emerging positive evidence	• Patients experiencing GP continuity of care
Evidence of potential to increase overall costs	• Extending GP opening hours • NHS 111 • Urgent care centres including minor injury units (not co-located with A&E)

Hospital at home (acute care at home)

'Hospital at Home is a service that provides time-limited active treatment by health care professionals in a patient's home as an alternative to inpatient care. It can be used as admission avoidance or as early discharge' [20]

Purdy et al [24] have outlined that hospital at home is the most researched and reviewed of admission avoidance interventions for the older population and that overall, except in stroke patients, appears to be at least comparable to care in an acute hospital in terms of effectiveness and patient safety. However Imison et al [20] caution that:

- There is a limited and mixed evidence base for Hospital at Home schemes, although new evidence has emerged in recent years.

[40] Berchet C. Emergency Care Services (OECD Health Working Papers). Organisation for Economic Co-operation and Development. 2015
[41] Ramlakhan S et al.Primary care services located with EDs: a review of effectiveness *Emerg. Med. J.* 2016

- The service appears to hold most potential when it focuses on admission avoidance rather than early discharge, however the evidence for both is mixed and varies according to condition.
- Many papers are based on small numbers of patients and few present a full economic evaluation. Whilst hospital at home schemes successfully provide a safe alternative to hospital there is little evidence that they deliver net savings
- Systematic reviews have found that, when compared with inpatient care, both Hospital at Home admission avoidance [42]and early discharge [24] schemes make little or no difference to patient outcomes (e.g. mortality and functional ability), although offer higher patient satisfaction.

Acute medical units

Acute medical units have been defined as ' *designated hospital wards specifically equipped and staffed to receive medical inpatient presenting with acute medical illness from the emergency department/community for care and treatment up to designated period typically between 24 and 72 hrs*.'[43] Two recent systematic reviews [25, 44] of units across UK European and Australian settings have concluded that AMUs are ' *associated with reductions in hospital length of stay, and less convincingly mortality, compared with other models of care'*. Scott et al's [25] observational findings also suggested a reduction in emergency department block, without increased readmission rates and improved patient and staff satisfaction,

Telemedicine (Remote monitoring)

Telemedicine is defined as '*the use of telecommunication to deliver healthcare at a distance'*. [45] It has been 'implicated *in reduced unplanned hospital admissions for heart disease, diabetes, hypertension and the older people'* [22]. Imison et al conclude that there is growing evidence for initiatives that monitor people at home, particularly for some conditions such as heart failure. A recent Cochrane review [28] also outlines that whilst the use of telemedicine may have been shown to lead to similar health outcomes in heart failure and diabetes, evidence on cost effectiveness and acceptability to both patients and health care professionals is limited.

Conclusions

Although the evidence base on the effectiveness of models of urgent care is improving it remains in development, with gaps in particular in relation to assessment of economic impacts and cost effectiveness. Whilst strong positive evidence has emerged for some models including 'ambulance/paramedic triage to the community, condition-specific rehabilitation, additional clinical support to people in nursing and care homes, improved end-of-life care in the community, remote

[42] Shepperd, S, et al. 'Admission avoidance hospital at home', CochraneDatabase Syst. Rev. 2016
[43] Scott I et al. Effectiveness of acute medical units in hospitals:a systematic review *International Journal for Quality in Healthcare* 2009: 21:397-407
[44] Reid et al The effectiveness and variation of acute medical units: a systematic review *International Journal for Quality in Health Care* 2016; 28: 433-446
[45] Flodgren G et al. Interactive telemedicine: effects on professional practice and healthcare outcomes (Review) *Cochrane Database of Systematic Reviews:* 2015

monitoring of people with certain long-term conditions and support for self-care' [20], it is also recognised that absence of evidence may not necessarily equate to negative outcomes in other interventions , particularly in small scale changes. However this reinforces the need for robust evaluations, of newer models of care going forward, and should not be underestimated.

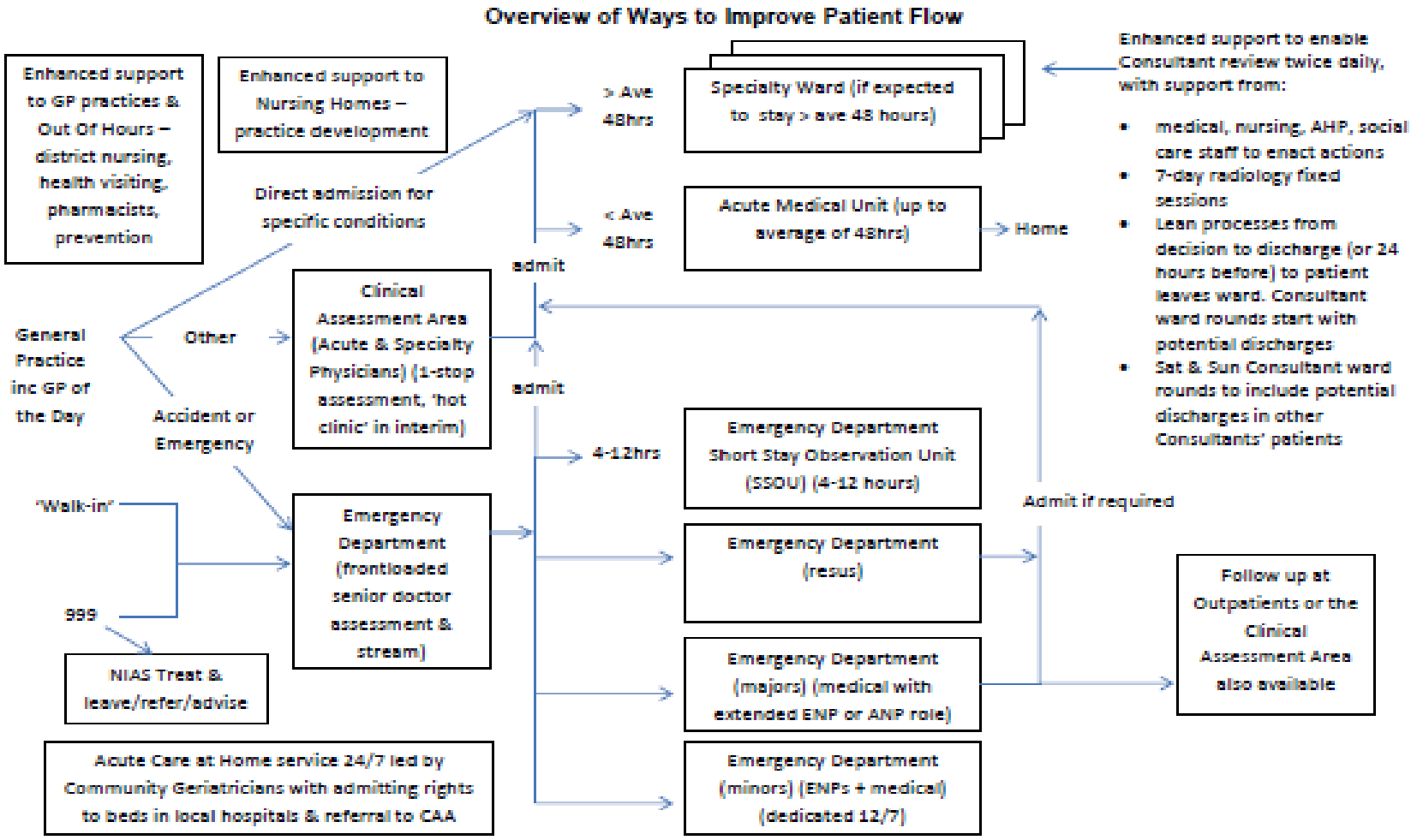
The importance of the impact of organisational, individual and behavioural factors on local implementation, use of care, and success are also highlighted. [20] Imison et al advise that 'where schemes have been most successful, they have: targeted particular patient populations (such as those in nursing homes or the end of life); improved access to specialist expertise in the community; provided active support to patients including continuity of care; appropriately supported and trained staff; and addressed a gap in services rather than duplicating existing work' [20].

However they also urge caution regarding the real need for investment when 'shifting the balance of care,' reiterating that many of the models examined 'place additional responsibilities upon primary and community care, at a time when they are struggling with rising vacancies in both medical and nursing staff, and an increasing number of GP practices are closing. Addressing these issues is a necessary precursor to success'. [20]

Limitations

The broad scope of this review, combined with the growing interest in urgent and emergency care, resulted in a vast amount of available literature to examine. The scale of this, and evaluating the information, in a very limited time frame proved challenging.

Annexe 1


Overview of Ways to Improve Patient Flow
Enhanced support to GP practices & Out Of Hours – district nursing, health visiting, pharmacists, prevention
Enhanced support to Nursing Homes – practice development
Direct admission for specific conditions
> Ave 48hrs
< Ave 48hrs
Specialty Ward (if expected to stay > ave 48 hours)
Acute Medical Unit (up to average of 48hrs)
Home
Enhanced support to enable Consultant review twice daily, with support from:
medical, nursing, AHP, social care staff to enact actions
7-day radiology fixed sessions
Lean processes from decision to discharge (or 24 hours before) to patient leaves ward. Consultant ward rounds start with potential discharges
Sat & Sun Consultant ward rounds to include potential discharges in other Consultants' patients
admit
General Practice inc GP of the Day
Other
Accident or Emergency
Clinical Assessment Area (Acute & Specialty Physicians) (1-stop assessment, 'hot clinic' in interim)
admit
'Walk-in'
999
NIAS Treat & leave/refer/advise
Emergency Department (frontloaded senior doctor assessment & stream)
4-12hrs
Emergency Department Short Stay Observation Unit (SSOU) (4-12 hours)
Emergency Department (resus)
Emergency Department (majors) (medical with extended ENP or ANP role)
Emergency Department (minors) (ENPs + medical) (dedicated 12/7)
Admit if required
Follow up at Outpatients or the Clinical Assessment Area also available
Acute Care at Home service 24/7 led by Community Geriatricians with admitting rights to beds in local hospitals & referral to CAA

APPENDIX 6

NIAS Alternative Pathways

Northern Ireland Ambulance Service
Health and Social Care Trust

Appropriate Care Pathway Report for Southern Health & Social Care Trust

August 2017

Background

As part of the Transforming Your Care strategy, NIAS was tasked with introducing a range of Appropriate Care Pathways (ACPs) which would reduce the number of patients conveyed to the Emergency Department. This work began in April 2014 and to date there are 12 ACPs available in the Southern Health and Social Care Trust (SHSCT) catchment area. Using ACPs can result in patients being treated at home and referred to another Health Care Professional (HCP) or being transported to a destination other than the ED e.g. Minor Injury Unit (MIU).

Current Pathways

The pathways currently available in the SHSCT area are:

- Acute Care at Home (frail / elderly)
- Cardiac
- Community Nursing
- Epilepsy
- Respiratory
- Diabetes
- Minor Injuries
- Falls
- Neck of Femur
- Palliative Care
- Safeguarding
- Heart Failure

Use of Pathways

The table below provides number of referrals made from April – July 17. There are a number of difficulties providing referral numbers per Trust area. Where this has not been possible, the regional figure has been supplied.

Pathway	SHSCT	Regional
Acute Care at Home (frail / elderly)	16	260
Cardiac	Not available	142
Community Nursing	Not available	40
Epilepsy	Not available	68
Respiratory	Not available	28
Diabetes	47	263
Minor Injuries	11	77
Falls	113	535
Neck of Femur	Not available	Not available
Palliative Care	Not available	14
Safeguarding	Not available	96
Heart Failure	Not available	0

Although our coding requires work, it is estimated NIAS clinicians across NI have also referred 695 patients to their own GP and resolved 2242 emergency calls on scene without the need for a referral during the same time period.

NIAS now has a non-convey rate of 25%.

Future opportunities

There are opportunities to further increase the non-convey rate to the Emergency Department but this would require:

- Direct access to frail / elderly beds
- Trust wide pathways e.g. Acute care at home
- Extended opening hours of current teams e.g. Acute care at home
- Increased scope of practice and opening hours of minor injury unit
- Ambulatory care pathways e.g. TIA clinics; DVT clinics
- Direct referral to specialities e.g. ENT; Medics; Surgeons

Appropriate Care Pathways

Guidance for Southern Division

21 July 2017

Acute Care at Home

The Southern Trust Acute Care at Home team is a consultant geriatrician led team that will assess / treat the frail / elderly within their own homes.

The service is available Monday to Friday from 0900 - 1700 hrs for patients over the age of 75 who live within the Greater Craigavon & Newry area.

To make a referral, the paramedic should ring the on call clinician on **(028) 3861 3010**.

Cardiac - pPCI

Patients presenting with an Acute MI will benefit from receiving Primary Percutaneous Coronary Intervention (pPCI) in one of the regional cardiac cath labs.

The inclusion criteria are:

- Symptoms consistent with an acute myocardial infarction
- Less than 12 hours elapsed from onset of maximum pain
- Has a 12-lead ECG with any of the following:
  - ST segment elevation of 1mm or more in at least 2 limb leads
  - ST segment elevation of 2mm or more in any 2 adjacent chest leads (not including V1)
  - Horizontal or downward sloping ST depression of at least 2mm in leads V1 - V3 (think posterior STEMI)

Community Nursing

Community (District) Nursing teams are willing to receive NIAS referrals in all Trusts for patients over the age of 18.

Crews should contact EAC on **(028) 9040 4021** for Community Nursing numbers and hours of operation.

Epilepsy

This pathway is available where the patient is known to have epilepsy and the presentation and duration of the seizure is what the patient would normally experience. The patient must be referred to either their own GP or OOH GP.

The patient should be left in the care of a responsible person and should have fully recovered with mental capacity.

Please ensure the patient has access to and is compliant with their regular prescribed medication, and that vital signs including BM, temperature and 12 lead ECG are within normal limits.

Community Respiratory Team

Patients experiencing an exacerbation of COPD can be referred to Community Respiratory Teams across Northern Ireland. The Southern CRT operates Mon – Fri 0900-1700 and 1100-1600 on bank holidays.

To contact them ring:

Craigavon / Banbridge: **07464 493 672**

Armagh / Dungannon: **07464 493 950**

Newry / Mourne: **07464 493 951**

Diabetes

Patients who have recovered from an episode of acute hypoglycaemia and can be safely left at home can be referred to the local Trust diabetes specialist nurses.

To make the referral call EAC on **(028) 9040 4021**.

Dungannon Minor Injury Unit

Minor Injury Units are staffed by Emergency Nurse Practitioners who can assess, treat and discharge patients presenting with minor injuries.

NIAS crews should ring the Minor Injury Unit on **(028) 8771 3103** to discuss the suitability of the patient.

Dungannon MIU is open Monday to Friday from 0900 - 2100 hrs, and 1000 - 1800 hrs at weekends.

Falls

The falls referral pathway is available for patients who have fallen and do not require assessment / treatment at the ED. The patient should consent to a referral, be over 65 and be capable of remaining at home.

To make the referral call EAC on **(028) 9040 4021**

Neck of Femur Pilot

This pathway has been introduced in the Southern Trust, to ensure that all patients that present with clear clinical evidence of a fractured neck of femur will be brought directly to ED at Craigavon Hospital for surgery, rather than undergoing initial assessment at Daisy Hill.

The call must originate in the Southern Trust catchment area. This service is available 24/7 and no specific pre-alert notification is required.

Out of Hours Palliative Care

This referral pathway is available in Southern Trust 7 days a week from 2200 - 0700 hrs

The service also offers a full day / night cover on weekends and Bank Holidays.

The team can be contacted on: **(028) 3839 9201**.

RRV Referral Pathway

This pathway is available for RRV paramedics who have decided that a non emergency ambulance is suitable to transport a patient to hospital.

The paramedic should satisfy themselves that no further assessment or treatment is required during transport.

To make the referral the paramedic should call EAC on **(028) 9040 4021.**

Safeguarding

A 24 / 7 safeguarding pathway is available across NI. The pathway is for both adults and children and is available for ALL staff to use.

To make a referral ring EAC on **02890404021** to obtain the correct phone number. A UIR MUST also be completed.

Heart failure

Patients presenting with an exacerbation of heart failure can be referred to heart failure nurses in the Southern Trust. The heart failure nurses operate Mon – Fri 0900-1700. To make a referral,

Craigavon: **07841469743**

Newry & Mourne: **07595 885213**

Stroke

A new thrombectomy pilot is running for patients presenting within 12 hours of acute stroke. Patients must still be brought to the nearest stroke lysing unit for assessment with a pre-alert for all patients with symptoms of less than 4.5 hours duration, but this is extended to 12 hours duration if the patient presents to NIAS during the hours of operation of the pilot (0800hrs-1730hrs)."

Patients must have a FAST and BM recorded.

The Craigavon Area and Daisy Hill Hospitals offer a 24 / 7 lysis service within the Southern Trust.

These pathways are to be used in conjunction with the appropriate referral / transport policy and guidelines (see NIAS Intranet)

Please contact your CSO should you require any assistance with the use of ACPs

Further information can be obtained from the Directory of Services – contact EAC for details or alternatively full ACP details are available on the NIAS Aide Memoire which is available to download from the NIAS website using the password NIAS999

Contact tyc@nias.hscni.net to report a failed referral.

Appendix 3
ED Workforce Group

Southern Health and Social Care Trust

Quality Care - for you, with you

DAISY HILL HOSPITAL
Pathfinder Group

Personal and Public Involvement (PPI) Involving you, improving care

Report of the DHH Emergency Department Workforce Group

20th December 2017

Contents

1.0 INTRODUCTION

1.1 Background

1.1.1 The Daisy Hill Hospital Pathfinder Group (DHHPG) established an Emergency Department (ED) Workforce Group which was tasked with the review of current staffing levels in DHH ED compared to recommended guidelines and standards. It was asked to identify plans and a timescale for implementation to secure a sustainable workforce for the delivery of 24/7 services. This included working with other organisations to consider workforce recruitment, training and development plans to improve recruitment and retention of medical, practitioner and nursing staff.

1.1.2 The Group, Chaired by Dr Richard Wright, Medical Director, met on 20th September 2017 and 4th October 2017 and agreed the following schedule of work:

- Identify the baseline staffing establishment for DHH ED (all staff groups).
- Having considered extant national and regional workforce guidance, and having explored the potential for alternative roles/staff skill mix, agree how the workforce model should look, based on current activity and case mix.
- Identify the gaps in current workforce compared to regional and other guidance.
- Consider future availability of workforce and workforce recruitment, training and development plans to meet the identified gaps and provide a feasible timescale for implementation.
- Consider the outcome of a recently completed survey of ED trainees undertaken through NIMDTA which sought their views on the factors influencing job choices & identify any potential solutions which could improve consultant recruitment to DHH ED.
- Develop a plan for the next 3-5 years to enable transition from the current position to delivery of the future service model.
- Undertake a sensitivity analysis to consider the impact on the desired ED staffing plan which would result from any rise in ED activity or service delivery within the ED, or any reduction in ED activity due to the development of alternative pathways for assessment or admission.

The membership of the group is shown in **Appendix 1**.

1.2 Current ED Service Model

DHH ED is ranked as the 6th busiest ED in Northern Ireland. DHH ED attendances are in the main from the Newry & Mourne area (with a population of 105,000), Banbridge Local Government District and a small number from the Republic of Ireland.

A total of 53,575 patients attended DHH ED during 2016. This included 38,695 attendances during the day (between 8am and 8pm) and 14,880 attendances in the overnight period (between 8pm and 8am).

In line with most large EDs, DHH ED 'streams' patients into dedicated areas of the department.

Within DHH ED the accommodation consists of 3 Resus, 4 Minors, 9 Majors (including a paediatric room, plaster room and isolation room) and support areas including reception, waiting area, utilities and storage.

The current priority of patients attending ED is detailed in Table 1 below:

Table 1: New Attendances at DHH ED in 2016 by Priority

Priority	New Attendances	% of Total
1 - Immediate	470	0.9%
2 - Very Urgent	14355	26.8%
3 - Urgent	26567	49.6%
4 - Standard	11773	22.0%
5 – Non Urgent	111	0.2%
Blank	299	0.6%
TOTAL	**53575**	**100.0%**

In addition to 'core' ED services, DHH ED provides the following:

- Daily Consultant led review clinics from 9am Monday and Friday.
- An Emergency Nurse Practitioner Service (ENP) from 10am and 10pm. An ENP can work independently and autonomously within their scope of practice in the 'Minors' stream in ED. They will independently assess, investigate, diagnose, treat or refer to other health practitioners without reference to a doctor within agreed guidelines of practice.

- A paediatric service (for 12,086 attendances in 2016/17). GPs can also arrange direct admission to paediatrics ward and send children to a paediatric ambulatory ward for assessment, investigation and a short period of observation.
- A range of ambulatory care pathways for the management of conditions including deep vein thrombosis (DVT), multi-disciplinary assessments, low risk cardiac chest pain, renal colic, pulmonary embolism, anaphylaxis, cellulitis and headache.
- Acute fracture treatment for a limited range of fractures.
- Initial investigation of ureteric or renal pain including emergency IVP.

Future developments

The Cooperation and Working Together (CAWT) Partnership has recently confirmed funding to support the ambulatory management of patients who would otherwise have been admitted via ED to an inpatient bed in Daisy Hill Hospital. This service is due to commence in January 2018 and the operational model is under active consideration.

CAWT is the cross border health and social care partnership, comprising the Health Service Executive in the Republic of Ireland and the Southern and Western Health & Social Care Trusts, Health and Social Care Board and Public Health Agency in Northern Ireland. CAWT seeks to add value to health and social care activity by bringing a cross border dimension to the on-going collaboration between the health systems in both jurisdictions, and accessing EU funding in support of such activities where appropriate.

2.0 MEDICAL & PRACTITIONER WORKFORCE

2.1 Baseline Staffing Establishment

Table 2 identifies both the current funded staffing level for medical staff in DHH ED and the numbers of staff in substantive posts as at August 2017.

Table 2: Baseline Staffing Establishment

	Funded Staffing Level	* Staff in Substantive Posts (as at Aug 17)
Consultant	5.50	1.83
Middle Grades	5.00	2.00
Junior Doctors	8.00	6.00
GP Sessions (wte)	1.16	0.78
TOTALS	**19.66**	**10.61**

It should be noted that the number of staff in substantive posts does not reflect the staff 'on the ground'. To determine the actual staffing levels, agency and bank staff must be considered, along with overtime and additional hours worked which can vary from month to month. **Appendix 2** provides a summary of the projected budget compared to projected annual spend.

2.2 Summary of Recommendations on Medical & Practitioner Workforce

The College of Emergency Medicine (CEM) has published several guidance documents to guide Trusts and Commissioners on the College's recommended staffing numbers and departmental structures. All Colleges prepare staffing guidance and it is not uncommon for these to demonstrate gaps between existing staffing levels and those recommended. They are also reviewed and amended over time to reflect new technology or demographic change, so meeting the guidance at a point in time does not guarantee that staffing levels that were adequate at that time will continue to meet future guidance. CEM guidance issued in 2015 on Consultant numbers was used during 2014/15 to inform DoH and NIMDTA on the medical training numbers needed if NI was to achieve the recommended consultant numbers

by 2021/22. The number of Consultants needed to staff all Level 1 EDs in NI was 104. At that time there were 65 consultants in post, indicating that a significant increase in output from the training programme would be needed to close the gap. This is summarised in Table 3. Recruitment to the training programme for Emergency Medicine was subsequently increased.

Table 3: Emergency Medicine Consultant Workforce Recommendations for Type 1 EDs (up to 16/7 shopfloor presence) based on 2014/15 ED attendance numbers

ED size by attendance per annum	Number of Type 1 EDs in NI	RCEM recommended number of wte Consultants per ED to achieve 16/7 'shopfloor' leadership	Recommended number of wte Consultants to achieve sufficient 16/7 'shopfloor' leadership in TYPE 1 EDs NI
< 50,000	5	10	50
50,000 to 80,000	3	10	30
80,000 to 100,000	2	12	24
>100,000	0	16	0
Total	**10**		**104***

Based on the College of Emergency Medicine Standards, DHH Emergency Department, as a unit with over 50,000 attendances per year, would therefore require 10wte Consultants.

The CEM also provided guidance on the wider clinical staffing requirements of a level 1 ED. This categorises clinical competencies for the tiers of staff in medical, nursing and other newer clinical roles. Such roles include Advanced Clinical Practitioners, a term encompassing Advanced Nurse Practitioners (ANPs) and practitioners from a non-nursing background working at a similar level and Physician Associates (PAs) (Table 4).

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Table 4: The College of Emergency Medicine definitions of Capability

Tier		Example
1	Require complete supervision.	F1 doctors, trainee practitioners
2	Require access to advice or direct supervision, or practice independently but with limited scope	ENPs, ANPs, PAs, F2 and CT1-2 doctors, some primary care clinicians
3	More senior/experienced, needing less supervision. Fewer limitations on scope of practice.	CT3, junior specialty doctors, some ANPs & PAs, some primary care clinicians
4	Senior clinicians able to supervise a department alone with remote support. Some extended skills. Full scope of practice.	CT4 and above, senior speciality doctors
5	Senior clinicians with accredited advanced qualifications in EM/full set of extended skills	Consultants in EM

Table 5 sets out a worked example from the College of Emergency Medicine for an ED with 60,000 attendances. It shows the variance between this recommended model and the current medical staff in substantive posts in DHH ED.

Table 5: Comparison of Staff in Substantive Posts & Required Staffing Level

	Required Staffing Level	* Staff in Substantive Posts	*Shortfall*
Consultants	10	1.83	*8.17*
Tier 3/4	12	2.00	*10.00*
Tier 2	12	6.78	*5.22*
Emergency Nurse Practitioners (ENPs)	4-6	3.45	*Between 0.55 and 2.55*
TOTALS	**38-40**	**14.06**	***Between 23.94 and 25.94***

**It should be noted that in addition to the staff in substantive posts there is a high level of spend on locum and other flexible staffing arrangements.*

2.3 Workforce Planning

2.3.1 Consultants

Based on the total numbers in training it is anticipated that up to 33 new Consultants will complete their training in Emergency Medicine over the next 3 years in Northern Ireland. NIMDTA has advised that 2 Consultants completed training in August 2017 and that the numbers due to complete training to 2020 is as follows:

- Due to complete August 2018 – 6
- Due to complete August 2019 – 10
- Due to complete August 2020 – 17

  TOTAL - 33

It would be expected that a small number of these Consultants may not take up fulltime posts in NI, but it is hoped the majority would apply for locally advertised posts.

The Trust has recently advertised 3 ED Consultant posts for DHH, one of which has a job plan with sessions in the Royal Victoria Hospital and the other two with sessions in CAH.

2.3.2 Training Grade Doctors at Middle and Junior Grades (Tiers 2 and 3)

All Trusts would like to have more trainees allocated to their ED Departments to meet service demands, including out-of-hours rotas. NI trainee numbers, commissioned by the NIMDTA, are designed to match the need for new consultants, and not solely to provide a service commitment. Trainee numbers increased from 2014, which should result in sufficient NI-trained consultants by 2021/22 to meet current CEM guidance. In due course, the number of trainees may be adjusted downwards by NIMDTA, in consultation with the DoH, in order not to train too many doctors for whom there may be no consultant posts. Seeking additional trainees for one site may only be achieved by removing them from another. It follows that relying on securing substantial additional numbers of trainees to deliver the majority of out-of-hours care is not a realistic solution.

In order to demonstrate a transparent allocation system for trainees between Trusts and hospital sites, NIMDTA is in the process of developing objective criteria to

assess each Trust's ability to deliver good quality training. This is expected to inform trainee allocation in the future. This process is unlikely to complete before the end of the DHH Pathfinder Project, but the Trust will engage fully with NIMDTA to endeavour to meet the criteria required to secure a greater share of the NI trainee pool.

Achievement of sufficient Tier 2, 3 and 4 staff to meet CEM guidance will require innovative approaches to the training and recruitment of non-training grade staff.

2.3.3 Tier 3/4 staff

Although the Trust will endeavour to secure additional trainee input, either by additional trainees or by increased rotation within the Trust, the majority of Tier 4 staff will need to be Specialty and Associate Specialist (SAS) doctors. GPs with a special interest and the new roles of Advanced Nurse Practitioner and Physician Associate could contribute to a greater extent at Tier 3.

The Trust has adopted the Northern Ireland Charter for SAS doctors and is committed to demonstrating actual benefits on the ground in this regard. The ability to offer career progression for speciality doctors would be one way to improve recruitment and retention. The Trust has facilitated a number of initiatives to support the SAS workforce. These have included the appointment of a SAS lead for revalidation/education and the establishment and organisation of successful SAS conferences on an annual basis since 2015. The most recent conference in April 2017 attracted over 141 delegates from all across the region. The Trust also runs regular lunchtime link up meetings for all SAS doctors in the Trust to bring together staff and provide a varied programme of talks and networking opportunities. The Trust has trained SAS appraisers and mentors and SAS doctors are represented on our Local Negotiating Committee of the BMA.

The Trust is taking an active role in pursuing a number of other ideas and concepts to ensure this group of staff continues to be developed and retained.

In addition, the Trust is keen to explore opportunities to attract and retain junior doctors by providing a focus on improving job satisfaction, providing opportunities to develop sub specialty interests; and to pursue research which could help towards Certificate of Eligibility for Specialist Registration (CESR) applications and flexibility with job plans.

The Trust will support SAS doctors in CESR applications as a retention initiative to promote career development. This could be through support to progressive development within the post, by considering job swaps or opportunities in other departments, or by helping doctors to gather the necessary evidence to apply for entry onto the specialist register via the CESR route with the GMC. Attractive Clinical Fellow positions will also be considered as a means to fill shortages in junior doctor posts – which would offer doctors who have opted out of training for a period of time the opportunity to develop a sub specialty interest or complete research whilst contributing to the service delivery.

2.3.4 Tier 2 clinical staff

The number of trainee junior doctors (FY2s) working at Tier 2 is a fixed number with DHH ED being allocated 6 trainees each year by NIMDTA. It is likely that the total level of cover required (12) will be provided through a mix of FY2s and GP sessions and enhanced through the development of new roles including Advanced Nurse Practitioners and Physician Associates.

Advanced Nurse Practitioners

Advanced Nurse Practitioners (ANPs) have just commenced training in Northern Ireland and are expected to enter the workforce in September 2019. A cohort of 10 Trainee ANPs (from across Trusts) are currently undertaking the course specific to Emergency care.

All students are registrants on the NMC register and have a previous graduate level qualification. Prior to commencement of the Trainee ANP course, they are required to have completed their V300 Non- Medical Prescribing and have 3 years recent experience in an Urgent or Acute setting. The students are currently seconded full time to the 2 year course and the Trusts have committed to securing ANP roles once qualified.

Nurses interested in undertaking the Advanced Nurse Practitioner training at a later stage should be encouraged to undertake the V300 Non-Medical Prescribing course.

All students have guidance of a Clinical Practice Supervisor (an Emergency Department Consultant) for support during their practical element and the academic component will be supported by a Pathway Leader (University Lecturer).

Once they receive their qualification, ANPs will be expected to be included in the staffing model of the Emergency Department, however, as this is a new role within Northern Ireland it is anticipated that there may be a period of time to embed and support this role. The role is already established in the Royal Victoria Hospital Emergency Department.

Advanced Nurse Practitioners will also be encouraged to consider opportunities for credentialing as an Emergency Care Advanced Clinical Practitioner (ACP) following completion of their ANP Programme. Credentialing is provided through a range of Royal Colleges to help support them to gain further recognition of their expertise and skills to include enhanced public confidence. This opportunity should be considered as part of the ANP's personal Development plan, ideally within the first 18 months to 2 years following completion of the MSc.

The Advanced Nurse Practitioner will use their expert knowledge and complex decision making skills, guided by The Code[1] in all situations. The ANP is accountable for the total episode of care for patients with undifferentiated and undiagnosed needs and is shaped by the context of their clinical practice.

ANPs will work at advanced level practice autonomously as well as within a multidisciplinary team, using a person centred partnership approach and are self-directed. They will also assess individuals, families and populations with an undifferentiated diagnosis, holistically, using a person centred approach and a range of different methods, such as physical assessment and history taking, ordering, performing and interpreting diagnostic tests or advanced health needs assessments.

ANPs have been evaluated under Agenda for Change as Band 7-8a during training and Band 8a whilst practising. ANPs may be in Tier 2 for a short period of time post qualifying and this may change as the role is embedded in the workforce. Some may go directly to Tier 3.

Physician Associates

Physician Associates (PAs) are healthcare professionals with generalist medical education. They provide medical care as an integral part of the multidisciplinary team adding to the skill mix of the team. Physician Associates work within a defined

[1] Nursing and Midwifery Council 2015 The Code. NMC London

scope of practice and limits of competence. They are able to work autonomously with appropriate support. They are not currently a regulated profession.

PAs were formally introduced into the UK Workforce in 2003. Whilst this role is relatively new to Northern Ireland there are around 350 PAs working in the NHS across primary and secondary care and the numbers are expected to rise to over 3,000 qualified PAs by 2020 *(President's Message: The Role of Physician Associates, Professor Jane Dacre, August 2017).*

Ulster University commenced a Postgraduate diploma programme in Physician Associate studies in Jan 2017 with an initial intake of 14 students. Applicants are graduates with at least a 2:2 degree classification (or equivalent overseas qualification) in a life science or health-related degree (which must contain significant elements of basic medical sciences) normally obtained within the last five years.

The Diploma Programme involves 2 years of intensive medical training and assessment. Once students have successfully completed the programme they can be entered into the PA National Examination. This is a safety and competency examination that all PAs across the UK must take and pass to enter into professional practice. Year 1 of the programme consists mainly of theory and 1 day per week in GP placement. Year 2 of the programme is mainly clinical placements. Students must complete the following placements as core requirements of the Competence and Curriculum Framework (CCF) for the Physician Assistant (DH 2006, Revised 2012)**.**

Table 6 shows the minimum hours requirement for the CCF and the hours requirement for the PA programme at UU.

Table 6: Minimum Hours Requirement for CCF and Hours Requirement for PA Programme at UU

Placement	CCF/DH min hours	UU required hours
General Medicine	350	400 (Acute Medical Unit)
Community Medicine	180	340 (140 yr1, 200 yr2)
Front Door Medicine	180	200 (ED)
Mental Health	90	100
Obstetrics and Gynae	90	100
Paediatrics	90	100
General Surgery	90	100
Electives Care of the Elderly	330	100 (student choice) 200
Total	1400	1740

At present UU have 14 students who will be starting clinical placements in January 2018 in the above rotations. All 5 Trusts in NI have agreed to provide placements and sponsorship for Year 2 of the PA programme for the 2017-2019 students.

Once qualified, PAs can work in a range of specialities throughout medicine. Currently there are 2 qualified PAs employed in clinical practice in Northern Ireland (one in the Belfast Trust and one in the Northern Trust). The initial expansion of the employment of PAs in primary and secondary care is likely to require a period of assimilation, integration and evaluation. New graduates will require support during this period and PA supervisors will require some protected/dedicated time to do this in their job plans.

Tasks and procedures performed by currently practicing PAs across the UK, regardless of specialty, are listed below, sorted in order of frequency.

- 96% take medical histories, perform physical examinations and provide patient education
- 70-95% interpret ECGs and place IV cannulas
- 50-69% undertake psychiatric assessment and urinary catheterisation
- 25-50% perform suturing, naso-gastric tube placement and pelvic examination.

Currently, physician associates are not able to prescribe or request ionising radiation (eg chest x-ray or CT scan).

The Royal College of Physicians indicates that PAs working in ED Departments are trained to take responsibility independently for patients in certain triage categories. In the UK, patient acuity in ED is organised into the following triage categories: (1) and (2) are critical, (3) is urgent, (4) and (5) are less urgent but still require review by a doctor or PA and (6) are considered minor injuries. PAs may manage triage categories (4), (5) and (6) independently, while patients falling into triage categories (1), (2) or (3) are either seen with or discussed with a consultant or registrar.

A newly qualified PA has been evaluated under Agenda for Change as Band 7. Very senior PAs with a Master's degree and 10 year+ experience have been Banded at 8a.

2.3.5 Emergency Nurse Practitioners

ENPs traditionally working in the “minors” area of the ED seeing a spectrum of injury and illness defined by local parameters. DHH currently has 3.45wte Emergency Nurse Practitioners (ENPs). They can be rostered to provide approximately 15 hours a day over 7 days (single cover ENP) or at busier periods 2 ENPs may be on duty together. This is comparable to the model introduced in the larger Type 1 EDs (2 ENPs 12/7).

2.3.6 Summary

The CEM has concluded that the development of longer-term workforce models, which include supervised practice placements for both types of practitioner (the ANP and the PA) is key to developing an ED workforce of the future. Introducing non-medical practitioners to the ED should be viewed as an essential medium to long-term investment and not a "quick-fix" for service and/or performance pressures *(College of Emergency Medicine, Non-Medical Practitioner in the ED, Service design and Delivery Committee, Feb 2015).*

2.4 Findings from ED Trainee Survey

Although the prospect of additional doctors completing training in Emergency Medicine in Northern Ireland offered hope that the Consultant workforce at DHH could be increased in a phased way over the next 3-5 year period, the intentions of the doctors finishing their training was not known. The DHH Pathfinder Group, through NIMDTA, developed an innovative approach to ascertain this information. An anonymised survey of those in training was designed to identify the factors which were likely to influence where they wished to work. Survey Monkey software was used to seek views on the doctors’ stage of training, previous hospitals in which they had experience of working, their likelihood of applying to DHH, South West Acute Hospital, Causeway or the Mater Hospitals (NI’s smaller Level 1 EDs) and the factors which would influence their decisions to apply for posts.

Forty-two doctors responded to the survey (60%). Twenty-three respondents were in the final 3 years of training and therefore likely to be eligible for a consultant post on or before 2020. Eleven of all respondents (26%) had worked in DHH at some point in their career. Five respondents indicated that they were likely or very likely to apply for a consultant post in DHH, with a further 6 neutral on the issue. Previous

experience of working in DHH did not appear to be linked with an intention to apply there for a consultant post.

The most important factors reported as influencing a decision to apply for a post in DHH were staffing levels and middle grade support. The next most important categories were geography, availability of specialities on site and a rota commitment of no more than 1 night in 8. All these factors were more important than financial incentives. Respondents also indicated that the ability to undertake other roles, such as sessional responsibilities in the Royal Victoria Hospital or in education would be factors which might be relevant.

In summary, based on the responses to this survey, there are trainees willing to consider applying to DHH and getting the staffing structure right would have greatest influence on their decision to apply.

2.5 Summary of Key Points

- DHH ED has a significant shortfall of 24-26wte in medical & practitioner staff in substantive posts: there are currently 14wte in substantive posts compared to the recommended staffing model which sets out the requirement for 38-40wte (Table 5).

- The Trust has had significant difficulties in recruiting consultant and middle grade staff to substantive posts over the past 3 years. This has led to an increasing reliance on locum and other flexible working arrangements to meet the requirements for medical cover to deliver safe services.

- NIMDTA has advised that over the next 3 years there will be 33 Consultants in Emergency Medicine who will have completed their training in NI. DHH should plan to achieve 10wte in post by 2021/22, with an initial aim of having a minimum of 6wte in substantive posts by 2020.

- Introducing non-medical practitioners to the ED workforce (Advanced Nurse Practitioners and Physician Associates) should be viewed a medium to long-term investment approach. The Trust is keen to support the development of the Physician Associate Diploma Course at Ulster University. It is recognised that there are a number of these individuals already working within emergency departments throughout the UK and if the Trust was to be successful in attracting

from this pool of staff this would provide an early opportunity to develop the role within DHH. In the interim the Trust will aim to maximise the number of nursing staff able to be offered ANP training. This information will be used to model feasible timescales to increase input from these grades into Tier 2 and 3 posts.

- Plans are in place to support SAS doctors to improve retention.

- Funding provided to the Trust over the past 3 years for investment in service development continues to be allocated on a non-recurrent basis to fund the current shortfall in funding for DHH ED.

- It should be noted that there is a significant shortfall in current funding, with a funded staffing level of only 19.66wte. There is a current shortfall in funding of £1,726,000 (with an annual budget of £1,827,000 compared to projected total spend of £3,554,000).

- If the Trust was to move to the recommended staffing level of 40wte there would be a total additional recurrent funding requirement in the region of approximately £1.5m. These high level costs have been developed on the basis of all posts being filled on a substantive basis, with no locum/flexible costs having been included. In addition, the recurrent funding requirement will be subject to change based on the posts that are recruited into each tier which will be further considered in the next stage of the project.

2.6 Risks

The Trust has had significant difficulties in recruitment to substantive posts in DHH ED over the past 3 years which has led to a reliance on locums. There is a local and national shortage of consultants and middle grade doctors in Emergency Medicine which will continue to present an ongoing risk.

3.0 NURSING WORKFORCE

3.1 Baseline Staffing Establishment

Table 7 identifies both the current funded staffing level for nursing staff in DHH ED and the numbers of staff in substantive posts as at August 2017.

Table 7: Baseline Staffing Establishment

	Funded Staffing Level	Staff in Substantive Posts (as at Aug 17)
Band 3 Nurse Support	5.60	9.26 (3.66 unfunded)
Band 5 Nurse	26.35	38.52 (12.17 unfunded)
Band 6 Nurse	1.00	5.44 (4.44 unfunded)
Band 7 Nurse	2.00	2.00
Band 7 Nurse Emergency Nurse Practitioner	3.60	3.45
TOTALS	**38.55**	**58.67**

When staff in substantive posts are compared to current Funded Staffing Levels the unfunded posts equate to approximately 20wte. However it should be noted that the number of staff in substantive posts does not reflect the staff 'on the ground'. To determine the actual staffing levels, agency and bank staff must be considered, along with overtime and additional hours worked which can vary from month to month. When the actual staffing levels on the ground are considered, on average, the unfunded posts equate to approximately 26wte. A summary of the projected budget compared to projected annual spend is included in **Appendix 2**.

3.2 Summary of Recommendations on Nursing Workforce

3.2.1 Delivering Care Framework

Delivering Care is a policy Framework, endorsed by the Chief Nursing Officer in the Department of Health, as the policy lead. It aims to support the provision of high quality care which is safe and effective in hospital and community settings through the development of a framework to determine nurse staffing levels across a range of settings and specialities. Further detail regarding the nurse staffing model for EDs can be found in the publication *Delivering Care: Phase 2* (Department of Health, 2017).

Delivering Care was initiated in 2012, with Phase 1 launched in 2014. Phase 2 focuses on the Nurse Staffing in core Type 1 Emergency Departments, with scope to develop a "staffing-ranges" approach related to all Type 1 EDs in Northern Ireland.

The application of this regional work to inform nursing requirements for DHH Emergency Department identified the need for a nursing workforce of 62.98wte (including registered and unregistered staff).

Table 8 demonstrates the shortfall between the recommended model and the current nursing staff in substantive posts in DHH ED.

Table 8: Comparison of Staff in Substantive Posts (August 2017 position) & Required Staffing Level

	Required Staffing Level	* Staff in Substantive Posts	*Shortfall*
Band 3 Nurse Support	11.20	9.26	1.94
Band 5 Nurse	36.78	38.52	-1.74
Band 6 Nurse	11.20	5.44	5.76
Band 7 Supervisory Ward Sister/Charge Nurse (1wte) & Band 7 12 hours Day Peak Activity (2.80wte)	3.80	2.00	1.80
TOTALS	**62.98**	**55.22**	**7.76**

**It should be noted that in addition to staff in substantive posts there is a high level of spend on locum and other flexible staffing arrangements.*

3.2.2 Emergency Nurse Practitioners

It should be noted that Emergency Nurse Practitioners (ENP) are not included in this Core ED staffing Model as the Minors stream was considered within the Regional Unscheduled Care agenda.

The staffing requirements for ENPs have been identified within Section 2.0 under Medical & Practitioner Workforce.

Table 9 sets out the recommended staffing model and shows the shortfall between the recommended model and the current funded staffing level in DHH ED (excluding ENPs).

Table 9: Comparison of Funded Staffing Level & Required Staffing Level

	Required Staff Level	Funded Staffing Level	*Shortfall*
Band 3 Nurse Support	11.20	5.60	5.60
Band 5 Nurse	36.78	26.35	10.43
Band 6 Nurse	11.20	1.00	10.20
Band 7 Supervisory Ward Sister/Charge Nurse (1wte) & Band 7 12 hours Day Peak Activity (2.80wte)	3.80	2.00	1.80
TOTALS	**62.98**	**34.95**	**28.03**

3.3 Summary of Key Points

- The comparison between current number of staff in substantive posts (55.2wte) and required staffing levels (62.98wte) identifies a relatively small shortfall of 7.76wte. The requirement for a significant increase in Bands 6 and 7 has been identified (Table 8).

- It is reasonable to anticipate that some of the current complement of Band 5 nurses would apply for and achieve Band 6 posts, thus reducing the Band 5 funded staffing levels to those stipulated within the model.

- If funding was to be made available to enhance staffing levels in line with the recommended model the Trust is confident that it could achieve the current requirements within the next 6-12 months.

- It should be noted that whilst the Trust is close to achieving the recommended staffing model there continues to be a significant shortfall in current funding, with a funded staffing level of only 38.55wte including ENPs (Table 7). There is a current projected shortfall in funding of £857,000 with an annual budget of £1,482,000 compared to projected total spend of £2,339,000 (Appendix 2). This projected position is subject to change, due to fluctuations month on month, and is likely to rise over the Winter period.

- If the Trust was to move to the recommended nurse staffing level there would be a total additional recurrent funding requirement in the region of approximately £1.3m. This would be the requirement if all posts were filled on a substantive basis, with no locum/flexible costs having been included.

- The Public Health Agency has submitted a bid to the Department of Health to secure funding for the implementation of *Delivering Care: Phase 2.* This funding is essential to enable all EDs in Northern Ireland to move from current funded staffing levels to normative staffing levels. There will also be a requirement to consider funding for ANPs.

3.4 Risks

Even with the receipt of funding to implement the required staffing model, the local and indeed global context is that there is a chronic shortage of Registered Nurses. The Trust continues to experience difficulties in achieving the recommended staffing levels across other specialties such as medicine.

4.0 OTHER CLINICAL & NON-CLINICAL SERVICES SUPPORTING DHH ED

It is recognised that in addition to medical and nursing requirements that DHH ED requires support from a range of other clinical and non-clinical services. These are considered within this section.

4.1 Overview of Clinical Services

All clinical services supporting DHH ED are experiencing staffing and funding pressures that have the potential to impact on patient flow, slowing down assessment and discharge. The most significant concerns are within radiology and radiography and work is ongoing within the Trust to take forward actions to improve the current situation.

The following clinical services provide system-wide support to the delivery of services at DHH, including the Emergency Department:

4.1.1 Radiography

There are current pressures on the DHH radiography service with an identified gap of 5wte Band 5 Radiographers. This has meant that current staff are required to work to a 1 in 7 rota rather than a 1 in 12 rota to provide out of hours cover. It is recognised that in the out of hours period the majority of radiography support is to the ED service.

The Trust is currently urgently reviewing the skill mix across Radiography in both DHH and CAH to ensure a career pathway for Band 5 Radiographers and to attract newly qualified Radiographers to work in the Southern Trust.

4.1.2 Radiology

This is a Trust wide service and there is currently consultant cover in place for DHH with reporting support through independent sector contractual arrangements. However, there is a shortfall of 7.5wte radiologists across the service and therefore any development of services, such as ambulatory or frail elderly assessment, requiring ‘real-time’ reporting would require a more responsive radiology service to be available.

4.1.3 Laboratories

The pressures facing the Laboratory service in the Southern Trust has been documented in recent investment proposals. The Trust has a requirement to fill vacant posts and increase funded staffing levels to support its biomedical scientist out of hours rota which is currently a 1 in 6 rota. Additional funding for 3wte Band 4 Technicians would support the DHH ED service. This would provide for 2 members of staff in labs in the out of hours period avoiding the potential risks associated with lone working.

4.1.4 Physiotherapy & Occupational Therapy Services

Physiotherapy & Occupational Therapy Services work together to provide multi-disciplinary assessment of patients in ED to support safe discharge and prevent unnecessary admission to inpatient wards. They currently visit the ED each morning and when possible twice more during the day to identify patients who they may be able to assist with discharge directly from the department. Onward referral to community teams is made when necessary for follow-up intervention in community.

These services currently operate Monday to Friday 9.00am-5.00pm. Further investment could help prevent hospital admissions and support greater use of available community resources.

4.1.5 Social Work

There is currently 1wte Band 6 Social Worker providing support to DHH and shared between ED and Childcare services, undertaking tasks from renal (inpatient and home visits) and children's services (including paediatric ward, maternity, antenatal and UNOCINI referrals etc). This is a Monday to Friday 9am - 5pm service. A dedicated ED resource and extension of this service into weekends could provide for more timely completion of patient assessment forms to the Access & Information Service and other services. This would mean Intermediate Care Services, Reablement, District Nursing, Integrated Care teams, Mental Health and Physical Disability Teams could pick these patients up more quickly from ED and potentially help to reduce admissions. It is estimated that an additional resource of 1.3wte Band 6 could enhance support to the ED in providing a service 9am-5pm Monday to Friday and Saturday-Sunday from 10am-2pm.

4.1.6 Pharmacy

There is currently 1wte Band 7 Pharmacist funded for both ED and New Admissions. There is no allowance within this current funded staffing level to provide for cover for annual leave or sick leave. This means that when staff are off there is an impact on the service provided to the wards to continue to meet the needs of the ED. To provide a 7 day service 9am-5pm it is estimated that an additional 1wte Band 7 Pharmacist and 2wte Band 4 Pharmacy Technicians would be required.

4.1.7 Risks

The most significant risk is in respect of Radiography and Radiology given the regional and national shortages which will continue to impact on service delivery, particularly timeliness of assessment and reporting.

4.2 Overview of Non-Clinical Services

The following non-clinical services provide support to the DHH ED:

- Cleaning
- Portering
- Security
- Admin

Based on the current ED service model continuing on a 24/7 basis there would be no anticipated impact on requirements for portering, cleaning and security staff.

The requirement for timely portering services has been considered to provide for more rapid transport of blood specimens to labs for assessment. Support Services has reviewed response times for patient bloods including response times between 5th September 2017 and 5th October 2017. Out of 675 requests from ED to collect blood 673 were responded to within the 5 minutes and all were taken from ED and left at the laboratory within 20 minutes. This situation and response times will be kept under constant review.

The following section considers the need for some minimal investment in administrative staff support to achieve 2 person cover on a 7 day basis between 8am-10pm and 1 person cover between 10pm and 8am.

4.2.1 Baseline Staffing Establishment - Admin

Table 10 identifies both the current funded staffing level for admin staff in DHH ED and the numbers of staff in substantive posts as at August 2017.

Table 10: Baseline Staffing Establishment - Admin

	Funded Staffing Level	* Staff in Substantive Post (as at Aug 17)
Band 2	7.85	5.89
Band 3	0.50	0.93
Band 4	1.00	1.00
TOTALS	**9.35**	**7.82**

It should be noted that the number of staff in substantive post does not reflect the staff 'on the ground'. To determine the actual staffing levels, agency and bank staff must be considered, along with overtime and additional hours worked which can vary from month to month. A summary of the projected budget compared to projected annual spend is included in **Appendix 2**.

4.2.2 Summary of Requirements for Admin Workforce

The following admin staffing model has been identified on the basis of 2 person cover on a 7 day basis between 8am-10pm and 1 person cover between 10pm and 8am. This is necessary to provide adequate cover in the reception area for booking patients into the ED, ensure follow up of patients, coding of each patient's diagnosis and discharge.

- 10.78wte Band 2 (increase of 2.93wte compared to funded staffing levels)
- 1wte Band 3 (increase of 0.5wte compared to funded staffing levels)
- 1wte Band 4

  TOTAL: 12.78wte

Two person cover on reception during 8am – 10pm is necessary to avoid a queue of patients waiting to be checked in, delays in answering phone calls, delays in discharging patients and in keeping the ED board live. The additional Band 2

requirement includes staffing levels for coding of ED attendances which must be completed on a timely basis and includes follow up with GP.

4.2.3 Summary of Key Points

- There are currently 7.82wte staff in substantive posts compared to the funded staffing level of 9.35wte.

- There is a current shortfall in funding of £21,000 (with an annual budget of £246,000 compared to projected total spend of £268,000).

- If the Trust was to move to the proposed staffing level of 12.78wte there would be a requirement for additional recurrent funding in the region of approximately £90k.

5.0 WORKFORCE PLAN

5.1 Five Year Workforce Plan for DHH ED 2017– 2022

The Trust would plan to work towards achieving minimum medical, practitioner and nursing requirements and enhancing staffing levels in admin services over a 5 year period as follows:

Post	Baseline Staffing Level wte	Year 1 (2018) wte	Year 2 (2019) wte	Year 3 (2020) wte	Year 4 (2021) wte	Current Guidelines Year 5 (2022)
Medical						
Consultant	1.83	3.43	5.03	6.63	8.23	**10.00**
Tier 3/4	2.00	2.00	2.00	3.00 + 1.00 ANP	4.00 +2.00 ANP	**8.00** (Incl. 2.00 ANP) Guidance: 12.00
Tier 2 Junior Doctors (incl. 0.78 GP Sessions)	6.78	6.78	6.78	6.78	6.78	6.78
Physician Associates	0.00	0.00	0.00	1.00	1.00	2.00
ANPs	0.00	0.00	1.00	1.00	1.00	2.00 Guidance: 12.00
ENPs	3.45	3.45	5.45	5.45	5.45	**5.45** Guidance: 4.00-6.00
Sub-Total	***14.06***	***15.66***	***20.26***	***24.86***	***28.46***	***34.23 Guidance 38-40***
Nursing						
Band 3 Nurse Support	9.26	9.26	11.20	11.20	11.20	11.20
Band 5	38.52	38.52	32.76	36.78	36.78	36.78
Band 6	5.44	5.44	11.20	11.20	11.20	11.20
Band 7	2.00	2.00	3.80	3.80	3.80	1.00 Supervisory Ward Sister/Charge Nurse & 2.80

Post	Baseline Staffing Level wte	Year 1 (2018) wte	Year 2 (2019) wte	Year 3 (2020) wte	Year 4 (2021) wte	Current Guidelines Year 5 (2022)
						Band 7 12 hours Day Peak Activity
Sub-Total	***55.22***	***55.22***	***58.96***	***62.98***	***62.98***	***62.98***
Non-Clinical Services						
Band 2	5.89	8.00	10.78	10.78	10.78	10.78
Band 3	0.93	1.00	1.00	1.00	1.00	1.00
Band 4	1.00	1.00	1.00	1.00	1.00	1.00
Sub-Total	***7.82***	***10.00***	***12.78***	***12.78***	***12.78***	***12.78***

Key Assumptions:

- The above Plan assumes that the current ED configuration in Northern Ireland would continue to exist.
- It is assumed that funding will be made available from 2018/19 onwards to support additional staffing requirements until the current guidelines can be met in Year 5.
- Consultants - An additional 1.6wte Consultants per year has been estimated on the basis of 2 Consultants being appointed each year but accounting for the fact that each Consultant is likely to also work 1 day per week in CAH or the Belfast Trust. It is recognised that this may prove difficult to achieve as other EDs across Northern Ireland will similarly be recruiting during this same period of time and some Consultants may opt to work part-time.
- Tier 3/4 – It is recognised how difficult it will be to increase Middle Grade staffing levels in the short-term and it is believed that at very best the Trust would work towards an increase from 2wte to 4wte by 2021. It would be hoped to further enhance Tier 3 staff to 8wte in 2022 which would include at least 2wte ANP moving from Tier 2 to Tier 3. Any difficulty in increasing middle grade cover could impact on the recruitment of Consultants.
- Tier 2 – It has been assumed that NIMDTA will continue to allocate 6 Junior Doctors to DHH ED each year and that the Trust will continue to use GP sessions to support the Tier 2 service. It is also planned that by 2022 that there will be 2wte Physician Associates and 2wte ANPs in place (NB. A further 2wte ANPs have been included in Tier 3/4 by 2022 as per above). The Trust currently has two staff undertaking

training as ANPs one of whom previously worked in DHH ED. The first member of staff will qualify in November 2019. It is anticipated that there will be an increase of 1wte ANP each year after this and to achieve this there need to be a steady number of Southern Trust nurses undertaking ANP training.

- ENPs - The enhancement of ENPs will support medical staff by seeing those patients with minor injuries, freeing up medical staff to see the most ill patients. On the basis current training arrangements it would be anticipated that 2 additional ENPs will be available in the 2018/19 year.
- Nursing - Additional nursing staff at Bands 3, 6 and 7 are estimated on the basis of funding being made available to move to normative staffing levels by 2019.
- Other clinical services – as some of the additionality identified in section 4.1 would not solely be for ED further work on requirements will continue to be informed by work to be undertaken in Phase 2 and will be included in the DHHPG Final Report.

5.2 Consideration of Impact of Increasing Pressures on DHH ED

The 5 Year Workforce Plan set out within this report has been developed on the basis of DHH ED having up to 60,000 attendances.

It is recognised that there has been an increase in attendances of 15% for adults and 28% for paediatrics in the 3 year period up to 2016/17. If this growth in attendances was to continue then DHH ED activity would increase beyond 60,000 over the next 5 years and staffing levels would require to be reviewed in line with guidance.

The ED Workforce Group recognises that other workstreams established by the DHH Pathfinder Group will be leading on proposals which aim to reduce pressure on ED services and that these should help meet increasing demands resulting from demographic growth and a growing older population.

5.3 Conclusion

The work to date describes the workforce model for the DHH ED which meets the requirements of Objective 3 as set out in the Project Initiation Document.

The development of an exemplar model to meet the acute unscheduled care needs for the Newry & Mourne population will continue through the “Task and Finish” Groups which are being established to further develop proposals and prepare a high level implementation and investment plan. This will be submitted in a Final Report to ECRC which will conclude the requirements of Phase Two of the Project.

Appendix 1 ED Workforce Group - Membership

Dr Richard Wright, Medical Director (Chair)

Ms Charlene Stoops, Assistant Director of Corporate Planning/Project Manager of DHH Pathfinder Group

Dr Gareth Hampton, Clinical Director for ED

Mrs Anne McVey, Assistant Director Medicine & Unscheduled Care

Ms Seana Grant, Community nominee

Ms Catherine Farrell, Staffside Representative

Dr David Mawhinney, ED Consultant, DHH

Dr Diane Corrigan, Consultant in Public Health Medicine

Mrs Vivienne Toal, Director of Human Resources & Organisational Development

Dr Sean McGovern, Vice president Royal College Emergency Medicine

Mr David Gilpin, Medical rep, DHH

Mrs Mary Burke, Head of Service - Medicine & Unscheduled Care

Sister Laura McAuliffe, ED DHH

Mrs Lynn Fee, AD Nursing (Workforce Development Training)

Mrs Carmel Harney, Assistant Director of AHP, WFD and Training

Mrs Anita Carroll, Assistant Director of Functional Support Services

Ms Siobhan Donald, Nursing, PHA

Mrs Zoe Parks, Medical Staffing Manager

Dr Kevin Maguire, Head of School of Emergency Medicine

Appendix 2 Current Financial Position

Funding provided to the Trust over the past 3 years for investment in service development continues to be allocated on a non-recurrent basis to fund the current shortfall in funding for DHH ED. The below table provides a summary of the projected budget compared to projected annual spend.

DHH ED Staffing – Projected Year End 31st March 2018 Financial Position (as at Aug 17)

	Projected budget to year-end	*Projected Substantive spend to year-end*	*Projected Locums & Other Flexible spend to year-end*	Projected total spend to year-end	*Projected variance to year-end*
	£'000	*£'000*	*£'000*	£'000	*£'000*
MEDICAL					
Consultant	747	*209*	*1,308*	1,517	*770*
Middle Grades	484	*118*	*717*	835	*351*
Junior Doctors	527	*284*	*826*	1110	*583*
G.P. Sessions	69	*92*	*0*	92	*22*
Total Medical	**1,827**	***703***	***2,851***	**3,554**	***1,726***
NURSING					
Band 2	0	*0*	*8*	8	*8*
Band 3	147	*252*	*30*	282	*135*
Band 5	1,015	*1,283*	*220*	1,503	*487*
Band 6	46	*255*	*18*	273	*227*
Band 7	216	*179*	*19*	198	*-18*
Band 7 ENP's	58	*74*	*0*	74	*16*
Total Nursing	**1,482**	***2,044***	***295***	**2,339**	***857***
ADMIN					
Band 2	208	*214*	*14*	228	*20*
Band 3	11	*13*	*0*	13	*1*
Band 4	27	*27*	*0*	27	*1*
Total Admin	**246**	***254***	***14***	**268**	***21***
TOTALS	**3,555**	***3,000***	***3,160***	**6,160**	***2,604***

Appendix 4

Literature Review for Ambulatory Emergency Care

Literature Review for Ambulatory Emergency Care

1.0 SUMMARY OF KEY LEARNING FROM LITERATURE REVIEW

	Summary from Key Learning From Literature and Case Studies
Definition of Ambulatory Care	The Royal College of Physicians defines ambulatory care as: *Clinical care which may include diagnosis, observation, treatment and rehabilitation not provided within the traditional hospital bed base or within the traditional outpatient services that can be provided across the primary/secondary care interface.*
Types of Ambulatory Care Models	• **Pull Model**: where clinical staff in Emergency Department (ED) identify and refer patients for Ambulatory Emergency Care (AEC). • **Passive Model**: where ED or those in Primary Care refer patients to AEC • **Pathway Model**: where patients are managed according to an agreed clinical pathway which has inclusion criteria. This can become exclusive as it often depends on pre-specified clinical criteria that might exclude many patients, especially those whose diagnosis is uncertain or those affected by more than one disease or disorder (or multiple comorbidities) • **Process Model**: where AEC is located within emergency care and directly accepts all clinically appropriate patients referred to them. **Evidence suggests a move away from a pathway approach to a process method which involves creating a system where all patients are considered for ambulatory care, unless clinically unstable, and ensures the maximum number of patients benefit from rapid access to the right treatment.** **Case studies would indicate that over 25% of emergency admissions can be converted to 'same day' care.** **Many models started on a small scale and are now moving to needing purpose-built ambulatory units.**

Critical to the success of any Ambulatory Care Model being implemented.	• Strong Clinical Leadership, Managerial Support and a Committed Team • Importance of Senior Clinicians as gatekeepers/decision-makers • Moving clinical decision to the front end of a patients journey • Good communication between primary, community and hospital setting • Using patient and staff experience, including primary care, to design and enhance the service • Depending on the model there should be no exclusion criteria or a clear criteria for acceptance • Need to align core operational hours to times of peak demand • Rapid access to diagnostics – activity is not new but about having access to diagnostics earlier in the patient pathway • Access to Specialist Clinics or flexibility in the way that they are delivered • Flexibility in the staffing model • Good access to community services to support discharge • Ambulatory care should not be seen as a replacement for traditional care pathways • Ambulatory services work more effectively when co-located with the Emergency Department.
Barriers to success	• There is a risk that ambulatory care can become a way to circumvent normal procedures and that GPs send their patients in order to get them to see a specialist more quickly. That is why there is a need for a senior clinician as a gatekeeper. • Capacity at peak times and periods – having to refuse patients • Senior support and buy in from clinicians • GPs knowledge of the service and process for access to ambulatory care services
Challenges	• Managing work across days/times as patient demand varies • Pressures of reaching the finishing line on a daily basis - safely completing diagnosis, treatment and discharge before closing time

2.0 OVERVIEW OF KEY LITERATURE

Literature	Summary
Thompson, D. & Connolly, V. (2014) All in a day's work: the drive for better ambulatory care, Health Service Journal, 14th May 2014	The College of Emergency Medicine made 10 recommendations in the report *Drive for Quality*. One recommendation was that **clinical decision units and ambulatory emergency care are important components of the emergency systems**. The Royal College of Physicians defines ambulatory care as: *Clinical care which may include diagnosis, observation, treatment and rehabilitation not provided within the traditional hospital bed base or within the traditional outpatient services that can be provided across the primary/secondary care interface.* The report indicates that clinical teams adopting this new way of working say that by managing significant numbers of emergency patients on the same day without the need for full admission, they **convert at least 20-30% of emergency admissions to same day care**. In respect of models of care, the report explains that **pioneer sites are moving away from a pathway approach to a process method** which means creating a system where all patients are considered for ambulatory care, unless clinically unstable or until proven otherwise and that this approach ensures the maximum number of patients benefit from rapid access to the right treatment. A number of principles of ambulatory emergency care were considered, this included: - Senior clinical input at the point of referral to redirect suitable patients to ambulatory care - Clear exclusion criteria - Staffing and resources should be organised to provide rapid assessment, diagnosis and treatment on the same day The report considered six case studies which have been published sharing transformation stories of sites that have implemented ambulatory emergency care. Lessons learned included: - A combination of strong clinical leadership and managerial support is needed to successfully implement ambulatory emergency care - The importance of analysis of data to understand how patients flow through the emergency system - To maximise potential for ambulatory emergency care it is important to work in partnership with primary care and commissioning colleagues to ensure a good understanding of services available outside of the hospital setting – to use their expertise and knowledge in service redesign - Whilst the creation of the model may be slightly different in each health community, the principles remain the same.

Literature	Summary
UEC Review Team & ECIST (August 2015) Transforming urgent and emergency care services in England, NHS England	This document recognises the need to redesign urgent and emergency care services. It sets out design principles drawn from good practice, which have been tried and tested and delivered successfully by the NHS in local areas across England. The report indicates that **hospitals introducing ambulatory emergency care for the first time should expect to convert 25% of their adult acute medical admissions to ambulatory care episodes**. It emphasises the importance of immediate access to a senior doctor who is responsible for agreeing the case management plan for each patient. It also states the importance of not excluding non-ambulant, frail older people who might benefit. The report suggests that all patients referred for emergency assessment should be discussed with a senior clinician who is immediately available to receive the call and who can offer a minimum of four options to the referring client: - Advice - An appointment in an outpatient clinic - Assessment in an ambulatory emergency care facility - Admission to an acute assessment unit (and access to an acute frailty service where appropriate) or directly to a specialty service It is proposed that **a senior clinician, with good knowledge of available services, can handle 10-15% of GP referrals over the phone without the need for the patient to attend hospital**.

3.0 AMBULATORY CARE MODELS AND CASE STUDIES

3.1 Pull and Passive Model

Pull Model: where clinical staff in ED identify and refer patients for Ambulatory Emergency Care & Passive Model: where ED or those in Primary Care refer patients to Ambulatory Emergency Care	
Critical to Success	- Senior Clinicians are gatekeepers and decision makers, ensuring that only people who really are suitable for this method of care are admitted onto the unit - Communication between hospital and community settings is essential as well as knowledge of GPs and community services. - Ambulatory care is not a replacement for traditional care pathways. - Using patient and staff experience to design and enhance the service will help you to achieve your goals faster and more effectively - You need flexibility in your staffing model and the way specialist input is delivered. - No specific inclusion criteria
Barriers to success	- There is a risk that ambulatory care can become a way to circumvent normal procedures and that GPs send their patients in order to get them to see a specialist more quickly. That is why there is a need for a senior clinician as a gatekeeper. - Capacity at peak times and periods – Having to refuse patients - Senior support and buy in from clinicians - GPs knowledge of the Service
Case Studies	
Whittington Health Trust, North London	**Aim** To provide an alternative to hospital admission for patients who could receive treatment in a fast and flexible way rather than being admitted into the hospital system. **Impact** Avoidance of unnecessary hospital admission; streamline patient journey; early diagnosis and management plan; reduced length of stay and reduced risk of hospital acquired infections. **What they did** Ambulatory care was co-located in the emergency department and started with 2 rooms in the emergency department.

	The service made such an impact that it later moved into its own purpose built £2.9million purpose built unit located within easy access of the emergency department and acute assessment unit. One of the priorities in the move was to create an integrated elderly service co-located with ambulatory care. The unit is run by multidisciplinary team including clinical leads, consultants in acute and emergency medicine, surgery, geriatrics and community matrons, senior nurses and therapists. Community matrons as part of the core team were vital to enable patients to be seen in their own homes as part of the virtual ward. The virtual ward team act as a key point of contact across the hospital for wards and the emergency department in terms of case finding appropriate patients and liaising with all appropriate care providers involved with the patient. **Source of Referral** GP have direct access to the Ambulatory Care Consultant of the day via a bleep to discuss patients and the most appropriate place for them to be seen; ED & Ward referrals **Critical Success Factors** - Senior Clinicians are gatekeepers and decision makers, ensuring that only people who really are suitable for this method of care are admitted onto the unit - Communication between hospital and community settings. - Don't regard ambulatory care as a replacement for traditional care pathways. It improves pathways but does not replace them - Using patient and staff experience to design the service will help you to achieve your goals faster and more effectively - You need flexibility in your staffing model and the way specialist input is delivered. **A word of warning** There is a risk that ambulatory care can become a way to circumvent normal procedures and that GPs send their patients in order to get them to see a specialist more quickly. That is why there is a need a senior clinician as a gatekeeper.
Antrim Area Hospital – Direct Assessment Unit	**Aim:** Support network for primary care to access unscheduled care for patients who would normally attend ED **Benefits:** Reduce pressure on ED by redirecting to Direct Assessment Unit; streamline patient journey; early diagnosis and

(Source: Northern Trust Presentation on Direct Assessment Unit)	management plan; and reduced length of stay **1st Phase commenced in 2012:** 2 chairs next to 3 inpatient beds in one bay of the Acute admissions ward Staffing Model: 2 Staff Grades; 1 staff nurse; 1 Auxiliary **2nd Phase:** 6 assessment chairs, 6 assessment trolleys + 2 side rooms Staffing Model: Band 7 Nurse; Acute Consultant (advice); 2 Staff Grades, Locum nurses **3rd Phase – Mon-Fri 9am-8pm:** 8 assessment chairs, 9 assessment trolleys + 3 side rooms Staffing Model: Band 7 Nurse; Acute Consultant (advice); COE Consultant, 5 Staff Grades, Permanent nursing staff Other Interventions: comprehensive geriatric assessment; cardiology; surgical; early intervention team **Source of Referral:** 43% GP referrals; 43% ED referrals; 8% NIAS referrals; 6% Other **Services** - Rapid access clinic – 8 slots which are flexible in time and number - Diagnostics – x-ray, CT and ultrasound - Hospital Diversion Team - Specialty input – verbal or clinical review - COE Consultant – comprehensive geriatric assessment; elderly admissions unit - Early intervention team (Mon-Fri 9am-5pm) – Dedicated multi-disciplinary team including physio, OT, social worker and discharge co-ordinator **Other Services** - Blood transfusion - IV Iron - Lumbar Puncture - Carotid Sinus Massage - Endocrine tests: water suppression tests - Midline insertion - Facilitation via anaesthetics for PICC lines **Common Conditions seen:** Headache; Asthma/COPD/Chest Infections; Pneumonia; Cellulitis; Anaemia; Urinary tract infection; Chest pain; Off

	feet/generally unwell; Electrolyte abnormalities; Acute Kidney Injury; Cardiac Failure; Delerium **Activity (Nov 2015 - Oct 2016)** - There has been a steady increase in activity from 195 patients seen in Direct Assessment Unit & Rapid Access Clinics from Nov 2015 to 408 patients by Oct 2016. - 30%-40% conversion rate - Approx. 50% of attendances to Direct Assessment Centre were over 65 **What worked well** - Flexibility – rapid access clinic, early discharge & early review & support from colleagues - Good team – focus on early discharge, knowledge of GPs & community services; experience over time - No specific inclusion criteria - Patient feedback/enhanced patient journey **Problems** - Staffing – locums; senior support - Winter pressures – limited space - Frustration when at full capacity – could be “Lean” - Refusing patients - GP knowledge of service **Future Plans** - Expanding model to include surgical, gynae and care of the elderly

3.2 Pathway Model

Pathway Model: where patients are managed according to an agreed clinical pathway which has inclusion criteria. This can become exclusive as it often depends on pre-specified clinical criteria that might exclude many patients, especially those whose diagnosis is uncertain or those affected by more than one disease or disorder (or multiple comorbidities)	
Critical to Success of this Model	• Strong Clinical Leadership and a committed team • Moving clinical decision making to the front end of a patients journey • Changing the mind-set of clinicians - Admitting patients to hospital is not necessarily providing the 'safe, high quality care' that it has always perceived to be. Need to prove that the methodology works to get the buy in from clinicians. • Communication – talk to each department within the primary, community and hospital setting and agree standard operating procedures. • Diagnostic Support – involving them in pathways – Activity is not new, it's about having this earlier in the patients pathway • A system-wide monthly emergency care meeting can be effective at bringing the whole system together. • Reduce waste – track patient flow and look at how processes could be more efficient and reduce waste.
Case Studies	
Penine Acute Hospitals Trust	**Aim** Development of AMB seven element scoring system that helps to identify which emergency referrals are suitable for ambulatory care **Impact** Accurate predictor of whether or not patients would require admission to hospital. Gives staff greater confidence when triaging patients and is a proven methodology to back up decisions. **What they did** The AMB identifies a number of factors that suggest that the patient can be safely discharged the same day, therefore making them suitable for ambulatory care. Determining factors include: • Age • Access to transportation • Family support and carers available • Patient is acutely confused or whether IV treatment is anticipated. • Normality of temperature

	• Oxygen Saturation • Systolic Blood pressure • Modified Early Warning Score (MEWs) **Other factors** • Patient being ambulant • Whether they can eat or drink • Lack of significant bleeding • Whether acute coronary symptoms are suspected • Respiratory rate of 10-25 min **Critical Success Factors** - Proven methodology - Improving communication with GPs - A holistic approach between Health & Social Care - Moving clinical decision making to the front end of a patients journey
Milton Keynes Hospital Foundation Trust	**Aim** The Acute Medical Team was charged with creating and implementing an Ambulatory Emergency Care Unit within just six weeks. An audit revealed that 65% of daily medical admissions had a zero or one-day length of stay so this 65% was the target for Ambulatory Care. **Impact** Improved patient journey, faster access to diagnostics and senior clinical decision makers, significant improvement in 5 key areas: safety, timeliness, efficiency, effectiveness and patient-centred care. After only six weeks 80 and 90% of patients cared for in the unit are sent home 'same-day'; having their care managed in the community, rather than in traditional hospital settings. MAU is now a more manageable environment and it can operate as a true Medical Assessment Unit. For ED, the effect of Ambulatory Care has been to improve patient flow, releasing time to focus on the sick, unstable patients who really need care. **What they did** The unit is open 5 days a week, from 9am to 8pm. It is located next to the ED. All patients are considered as potential candidates for ambulatory care unless there are clear clinical indications to the contrary. The team created its own

	scoring system to help stream patients into the unit. Milton Keynes set up a virtual ward and patients are often discussed 'in absentia' if they were seen the day before. Telephone consultations are common. Some mildly unwell patients lie on trolleys but most sit on chairs or recliner chairs. Those who are not well enough for this go to the Medical Assessment Unit (MAU). Activity is clinically coded. **Critical Success Factors** - Changing the mind-set of clinicians - Admitting patients to hospital is not necessarily provide the 'safe, high quality care' that it has always perceived to be. - Keep colleagues on board – talk to each department and agree standard operating procedures. - Reduce waste – track patient flow and look at how processes could be more efficient and reduce waste.
East Kent	**Aim** To improve patient flows, increase capacity and meet the demand for emergency care **What they did** They initially developed 6 ambulatory pathways – DVT, Pulmonary Embolism, Anaemia, COPD and TIA. Ambulatory Care units were established in each of their 3 acute sites. The Ambulatory Emergency Care Units are open from 8am to 8pm, Monday to Friday and Saturday from 8am to 2pm. The Trust is currently undertaking a feasibility study into Sunday opening. The units no longer simply treat pathway conditions but now consider a wider range of patients for ambulatory, including those with co-morbidities. To achieve this, the Trust is working to create a whole system model of care that supports same day discharge. **Impact** - Zero length of stay has increased from 28% to 33% since the introduction of Ambulatory Care. This has also had an impact on short stay increasing to 69.37%. - There is reduced waiting times for assessment and treatment. - Improved patient flow and outcomes - The development of new pathways across primary and secondary care. **Critical Success Factors** • A system-wide monthly emergency care meeting has been effective at bringing the whole system together. • The Trust allayed concerns from diagnostics about the Ambulatory care by involving them in the pathways. It became clear that this was not new activity but a move of activity from CDU to ACU earlier in the patients pathway.

	• You need to align your core hours to the times of peak demand. Ambulatory Care gets busy from 4pm, so you cannot close your doors at 6pm. The unit in East Kent is open six days a week from 8am to 8pm, Monday to Friday, and 8am to 2pm on Saturday. They are looking at the feasibility of Sunday opening as well.
Watford General Hospital	**Aim** To identify if there were any patients in A&E that could potentially be treated and discharged the same day by bringing them into Ambulatory Care. **Impact** - Impacted on admissions and inpatient discharge rates - 46% of GP referrals for admission are now streamed to Ambulatory Emergency Care. - 24-30% demand diverted to ambulatory care **What they did** Service started with one bed and a few chairs, with no pathways and no particular types of patients they were targeting. Within 2 weeks it became clear that the flow of patients was much better, beds were available and some of the pressure on A&E was relieved. They began to introduce ambulatory care pathways for some of the most common emergency conditions – cellulitis, low risk chest paint and DVT to overcome resistance from clinical colleagues. The Ambulatory Care now has a purpose built unit with 6 examination rooms, separate male and female areas with 4 trolleys and one bed each. The service operates from 8am-8pm Monday to Friday and 11am -7pm at the weekends. Staffing includes 7 consultants, staff grade nurse, 2 SHOs, 13 Nurses, 1 DVT nurse and 1 cellulitis nurse. The service operates a pathway approach to identify and select suitable patients. Day case patients are booked in advance and there are a number of rapid access clinics. **Continued Expansion** Elderly Ambulatory Care was introduced in 2013 to provide same-day care for older patients with co-morbidities and complex social needs. Initially only reviewing 3-4 patients per day this has increased to 11 with an additional member of staff. Older patients are referred from 5 streams – GPs and A&E who would otherwise have been admitted, early ward discharges, patients requiring rapid access to outpatient review and diagnostics to avoid deterioration which might lead to admission. This provides an opportunity to assess for admission rather than admitting to assess. Older

	patients are seen by a multidisciplinary team using a comprehensive geriatric assessment They have further plans to introduce Gynaecology and Surgical Ambulatory Units **Critical Success Factors** • Strong clinical leadership • Committed team • Ability to identify suitable patients • Good communication • Support from Diagnostics

3.3 Process Model

Process Model: where Ambulatory Emergency Care is located within emergency care and directly accepts all clinically appropriate patients referred to them.	
Critical to Success of this Model	- Change in mind-set and culture of staff - Joint working between the hospital and GPs - Support of community services for rapid response. - Rapid Access to Diagnostics - Ambulatory works more effectively when co-located with the Emergency Department. - Not to be specific about which patient pathways are appropriate for Ambulatory Care - Development of specialist clinics. Patients with a range of conditions are diagnosed and stabilised on the Ambulatory Emergency Care Unit. If further treatment is needed they are referred to one of the weekly ambulatory emergency care clinics which are held in the unit.
Case Studies	
South Tees Hospitals Foundation Trust – The Middlesbrough Experience	**Aim** To provide same day diagnosis and treatment of emergency conditions **Impact** • It treats an average of 23 patients a day. In January 2012, the unit handled 469 of the 2,133 emergency referrals to the hospital – around 22% of all emergency admissions. • Provides more structure and predictability than is usually achievable in an emergency setting. • Provides better training opportunities for junior staff, who work under close supervision of the consultants delivering the specialist clinic • Patients prefer to be treated in an ambulatory way **What they did** The Ambulatory Emergency Care unit is adjacent to the Emergency Department and opened seven days a week, from 8am to 9pm on weekdays and 8am to 8pm at weekends. The unit has four trolleys, four consulting rooms and a discharge lounge. The number of conditions treated in an ambulatory way has grown rapidly. The unit now manages a whole range of medical emergencies, including COPD, cardiac failure, cellulitis, diabetes and low-risk gastro-intestinal bleeds. The teams apply clinical risk scores to identify which conditions can be treated in an ambulatory way rather than taking a specific individual pathway approach. This means that a wide range of conditions and co-morbidities can be treated - an important change of approach that has enabled a significant increase in the number of patients treated in an ambulatory way. The unit handles blood transfusions and a growing number of surgical cases.

	GPs can telephone the unit after 1pm Monday to Friday following their morning surgeries to receive direct advice from consultants on any potential emergency admissions. **Critical Success Factors** - Development of specialist clinics. Patients with a range of conditions are diagnosed and stabilised on the Ambulatory Emergency Care Unit. If further treatment is needed they are referred to one of the weekly ambulatory emergency care clinics which are held in the unit. - Change in mind-set and culture of staff - Support of community services for rapid response.
Nottingham University Hospitals Trust	**Aim** A new process for GP Assessment and Ambulatory care with the overarching principle: Treat all patients as ambulatory until proven otherwise. **Impact** No bed breaches. Trust could focus on getting less sick patients diagnosed stabilised, treated and returned home. Because patients were not taking up beds unnecessarily, the people who did need them could access them faster. Since opening a full-time Ambulatory Emergency Care Unit, between 60 and 88 GP emergency referrals are treated in an ambulatory way every week. That is between 30 and 40% of total referrals. **What they did** They began by trailing the streaming of GP emergency admissions into an ambulatory area at the end of the short-stay ward. The area, which was adjacent to the Medical Assessment Unit (MAU), opened Monday to Friday from 9am to 10pm. It was staffed by a consultant, two junior doctors and nursing staff. This pilot project was supported by the Trust's 'Better for You' team, which drives improvement within the hospital. The pilot enabled the Acute Medical team to measure the impact of Ambulatory Emergency Care on staff and patient experience, governance and risk. Following the pilot the Trust created a dedicated Ambulatory Emergency Care Unit adjacent to the short stay ward. The unit is open from 9am to 10pm every day. It sees between 30 and 50 patients a day, with an average length of stay of five hours. The unit has a dedicated consultant from 9am to 5pm, and a shared consultant (shared with admissions) from 5pm to 10pm. There are currently two Advanced Practitioners working in Ambulatory Care and more will be appointed as the service develops. There is also a nurse, nursing auxiliary and clinical support worker. There are two junior doctors (within a flexible pool) who start at 10am until 6pm before Hospital at Night take over. **Critical Success Factors** - Joint working between the hospital and GPs - Rapid Access to Diagnostics

	- Ambulatory Emergency Care Team uses its clinical judgement for any patient as potentially ambulatory rather than being restricted to a pathway approach.
Weston Area Health Trust	**Aim** To reduce emergency admissions by assessing, treating and discharging patients on the same day **Impact** The unit currently treats 170 patients per month and it is estimated to save the hospital around 100 bed days a month. As ambulatory care unit has reduced demand for emergency admissions the Trust has been able to reduce capacity which has brought down costs. **What they did** The service originally started with a bay within a ward area. This evidenced that the unit was having an impact within weeks of its launch and helped make a case for development. The ambulatory care is now a 15 bed unit co-located with the Emergency Department. The unit is staffed by 2 registered nurses, 2 non registered nurses, a staff grade doctor, a junior doctor and a consultant. The unit is open from 10am-7pm Monday to Friday. The Trust recently piloted an 8am to 8pm opening and is considering how it could open the unit over the weekend. **Challenges** Wards began referring patients to the unit for post discharge follow ups which would have taken up all the units' capacity. Controls were put in place to reduce the number of follow ups from inpatient admissions. Organisations need to be clear about treatment criteria and bear this in mind as the service develops. **Key Learning** • Ambulatory works more effectively when co-located with the Emergency Department. • Not to be specific about which patient pathways are appropriate for Ambulatory Care • Staff in ambulatory care have access to the emergency department's computer system and patient tracking boards. If they identify a patient who they believe could benefit from ambulatory care, they can proactively approach the emergency department.

4.0 USEFUL LINKS

Whittington Health Trust, North London **https://www.ambulatoryemergencycare.org.uk/uploads/files/1/CaseStudies/AEC%20Case%20Study%20-%20Whittington.pdf**
Nottingham University Hospitals Trust **https://www.ambulatoryemergencycare.org.uk/uploads/files/1/CaseStudies/AEC%20Case%20Study%20-%20Compilation.pdf**
Milton Keynes Hospital Foundation Trust **https://www.ambulatoryemergencycare.org.uk/uploads/files/1/CaseStudies/AEC%20Case%20Study%20-%20Milton%20Keynes.pdf**
Penine Acute Hospitals Trust **https://www.ambulatoryemergencycare.org.uk/uploads/files/1/CaseStudies/AEC%20Case%20Study%20-%20Pennine.pdf**
South Tees Hospitals Foundation Trust **http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0ahUKEwjIx8jk1erWAhVsIcAKHTKSCugQFggmMAA&url=http%3A%2F%2Fwww.ambulatoryemergencycare.org.uk%2Ffile_download.aspx%3Fid%3D15661&usg=AOvVaw2folouZToBqeFFsIEzPjfN**
Weston Area Health Trust **http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&ved=0ahUKEwj-orXwuujWAhWMWBoKHaFyDyAQFggzMAI&url=http%3A%2F%2Fwww.ambulatoryemergencycare.org.uk%2Ffile_download.aspx%3Fid%3D15662&usg=AOvVaw0izkYOY6IwLRUg540dcmda**

Appendix 5

Draft KPIs and Data Sets for Direct Assessment Unit

Draft KPIs and Data Sets for Direct Assessment Unit

The Key Data Sets & Performance Indicators to be measured include:

Measurement	Key Data Sets & Performance Indicators to be measured
Team Development	<u>Recruitment and Retention</u> • Staff Recruitment • Staff Training • Staff Commencement Dates • Date of Full Roll Out of Staff • Staff Retention – Staff Turnover Rates • Staff Satisfaction – Staff Surveys <u>Direct Client Contact</u> • Face to face contact • Direct telephone contact with referrer/client/carer • Other telephone contact with professional staff <u>Indirect Client Contact</u> • Reports/notes • MD Team meetings re clients
Patient Demographic	• Age • Gender • Area of Residence • Time and Date of Attendance/Review • Arrival Mode
Referral	• Type of Referral – New/Review • Source of Referral • Time of Referral • Reason for Referral • Outcome of Referral – Advice or Assessment • Non Acceptance of Referrals and Reasons Why
Telephone Advice	• Date and Time of Call • Caller Details – Name, Practice • Details of Patients • Reason For Telephone Call • Length of Time on Call • Appropriateness of Call • Advice Given • Record of telephone calls that could not be responded to due to capacity issues
Patient Assessment	• Key Staff Responsible for Patient • All Professional Staff and Services involved in Patients Assessment • Length of Time to Initial Assessment • Length of Time to Diagnostics/Assessments • Primary Diagnosis

Measurement	Key Data Sets & Performance Indicators to be measured
	• Description of Diagnosis • Length of Stay in Unit • Time and Date of Discharge • Discharge Outcome & Pathways
Conversion Rates and Other KPIs	• Conversion Rate of Discharge to Admission • Admissions Avoided and Bed Days Saved • Referral Conversion Rates from ED/GPs and NIAS • Inappropriate Referrals • Patients with more than one attendance – frequent flyers
ED	• Reduction in the number of patient waits breaching the 4 and 12 hour target • Reduction in average of overall waiting times in ED • Reduction in attendances at ED
Non Elective Admissions	• Reduction in Non-Elective Admissions with a LOS from 0-5 Days • The % of Non-Elective Admissions by Source of Referral with a LOS from 0-5 Days
Other Factors	• Re-admissions • Number of outliers (or some other measure of bed availability) • Compliance with Surgical SABA • Availability of Patient Transport
Satisfaction Surveys	• Staff • Patients/Carers • GPs • NIAS • ED • Specialist Nursing

Appendix 6
Regional Support for Project Implementation

Regional Support for Project Implementation

Medical Workforce

- Consideration of ways to fund increasing training numbers in shortage specialties, with particular emphasis on Consultant Intensivists, Care of the Elderly and Radiology.
- Regional agreement on phasing of Consultant job advertisements to ensure posts, for at least the first Year of the Plan, are optimised via Medical Directors as per process agreed through TIG.
- Regional agreement with NIMDTA that current level of 6 trainee doctors allocated to DHH ED will be sustained for at least the first 3 years of the plan.

Nursing & AHPs

- Regional support for the recruitment, retention and development of nursing and AHP staff, this could include:
    - Further increase in the number of pre-registration nursing places through the two local universities and support to the international recruitment process.
    - Provide funding for nurse-staffing in all EDs commensurate with the outcomes of *Delivering Care*.
    - Enhance the support to staff, both new and current post holders through the development and testing of a clinically based practice educator.
    - Increase the capacity and access to post-registration education to ensure sufficient Nurse Practitioner and specialist nurses are available to take on new and enhanced roles.
    - Increase the capacity and access to post-registration education for Advanced Nurse Practitioners in support of ED and other specialities.

Support to new roles

- Regional support for new roles, such as ANP and PA roles, to strengthen the HSC system. This should include the development and expansion of training programmes for ANPs and Ulster University's PA training programmes, including use of non-recurrent funding to increase the number of training places.

Retention of Staff

- Support cross Trust working through continuing to develop consultant job plans with local and regional roles.
- Make jobs more attractive to encourage staff to work in substantive posts – ensuring pay and conditions are set appropriately to support retention, secondment/staff development/career progression opportunities, providing incentives such as more flexible and attractive job plans to support work-life balance, including supporting areas of specialist interest such as education and research.
- Exploring a range of measures to support, develop and retain SAS doctors.

Primary Care

- Support the expansion of doctors training to enter the GP workforce through, for example, increasing the number of medical students in Northern Ireland Universities.
- Support to alternative interface models such as virtual clinics and advice sessions to promote effective communication between primary and secondary care.
- Streamlining processes to support GPs, who have previously worked in Northern Ireland and since moved away, to return to practice here.
- Facilitate HSCB pilots of new primary care services in N&M area.

IT Development

- Progress the development of the HSC-wide e-health strategy that aims to support digitally enabled-integrated care pathways in Northern Ireland.

Appendix 7

Evaluation of Project – Feedback from DHH Pathfinder Group Members

Evaluation of Project – Feedback from DHH Pathfinder Group Members
At Meeting of 13th December 2017

Something I learned:

- The power of consensus
- The importance of having a well organised team to drive this project forward.
- Political/Media and Community influences have paid dividends
- Importance of clinical leadership
- Importance of focused time to deliver real change quickly
- "Many hands make light work". One aim excellent outcome
- Benefits of co-production
- Impact of ACAH
- Co-operation with other groups leads to the biggest changes working together
- How joined up thinking and leadership can achieve results
- Observing Anne-Marie's chairing and agenda management style has given me a much needed refresher course on how to do it well!
- Impact education can make (GP test on schools) and effect on A&E admission
- The complexity of the task; that strong leadership of the process has been vital; the high regard (deserved) that DHH has in the community
- Without right people in room and right leadership you're doomed from outset.
- 1st time real co-production in Health planning has happened and initial results very positive
- The value of being an active LISTENER
- That to have a successful meeting requires lots of preparatory meetings and conversations with all stakeholders. This is an important leadership skill
- It ain't what you do it's the way that you do it. This approach has changed the dynamic and demonstrates the substantial talent and strong leadership in Southern area
- The value of 'evidence' not 'anecdote'
- Merit of an honest broker approach for tricky/issues
- A greater appreciation of what it's like for staff groups within the organisation workload etc

Something I felt:

- Passion
- I have made a significant change for the good
- Impressed by hard work and effort of all involved
- I have felt uplifted by the genuine energy and immense effort put in by all those in this group. When it really matters it is important to get people behind you to help with heavy lifting
- Real sense that people involved in all aspects really want to improve services in this locality
- I felt relieved that this was being taken seriously at regional level. I had been concerned about it for a long time and concerned it wasn't getting the attention it deserved
- The amount of good will which truly adds value
- Felt that things were <u>really</u> and even finally going to change
- There is hope!
- Reinforced the 'power' of real co-production in getting collective agreement and sharing risks regardless of final outcome
- The right thing to do
- Southern Trust ain't doomed after all. I can safely retire
- The genuine 'passion' for the care provided by DHH
- We cannot continue to do things the same way
- How good it is to be part of a strong, supportive team with complementary skills
- Seeing the 'story' change from negative/emotive to positive and energetic e.g. save DHH – Love DHH
- I felt proud to be a part of the project and now seeing its aspirations coming to full fruition

Something I will take away:

- How to better engage with people
- The process to apply in other situations
- The importance of having an overall vision
- Positivity about future of Emergency Department in Newry and Mourne and even more positive that real partnership works.
- Ensure Trust enables true co production that allows local community to engage – even if they opt for lesser role.
- Learning from other Trusts/evidence
- The need to educate our community better
- Value of co-production approach
- The value of honest critical appraisal of the situation/future options “warts and all”, burying the head in the sand in this regard is a recipe for disaster.
- Dedication and respect and determination of people
- The ‘meet the project director’ engagement at the beginning was brilliant. Will definitely use that.
- Remember how much benefit is gained by setting aside time to meet group members separately (as opposed to only at main meetings).
- Already developing co-production approaches in other areas of work.
- Greater knowledge. The sum of the parts is greater than or equal to the whole!!
- That anything is possible when everyone is together and moving in the same direction.
- All stakeholders should be involved
- Public pressure works! (sometimes)
- Face to Face communication
- Need for leadership and buy in from members to make it work
- A masterclass in how to chair a project.

Something I will leave behind:

- The thought that there will not be funding
- Hostile challenge from other organisations
- The pace and amount of documentation did not always enable time to fully absorb and understand each element – but balance of need to get and maintain momentum
- Hard to come in at the mid-end stage
- Negative press at the outset of project
- Any bias or thinking you know exactly what everyone is doing and how they do it
- The lie that patients/community area always negative. Also the lie that SHSCT did not care or try before this