Trim Primary Care
Nursing Data Project Report

Siobhan Stafford ADPHN
Anne McDonald PHIT PL

December 2015
<table>
<thead>
<tr>
<th>Contents</th>
<th>Page Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contents</td>
<td>2</td>
</tr>
<tr>
<td>Background</td>
<td>3</td>
</tr>
<tr>
<td>Introduction</td>
<td>4-5</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>6</td>
</tr>
<tr>
<td>Abbreviations List</td>
<td>7</td>
</tr>
<tr>
<td>Methodology</td>
<td>8</td>
</tr>
<tr>
<td>Aim, Design</td>
<td>8</td>
</tr>
<tr>
<td>Project Set-up and Data Collection</td>
<td>9-10</td>
</tr>
<tr>
<td>Ethical Considerations</td>
<td>11</td>
</tr>
<tr>
<td>Data Protection</td>
<td>11-12</td>
</tr>
<tr>
<td>Results</td>
<td>13-29</td>
</tr>
<tr>
<td>1) Trim Profile, Street Index and Map</td>
<td></td>
</tr>
<tr>
<td>2) ADPHN Comparison Report</td>
<td></td>
</tr>
<tr>
<td>3) Feedback from project meetings</td>
<td></td>
</tr>
<tr>
<td>4) Summary Data</td>
<td></td>
</tr>
<tr>
<td>5) Caseload Analysis</td>
<td></td>
</tr>
<tr>
<td>Summary</td>
<td>30-33</td>
</tr>
<tr>
<td>Conclusions</td>
<td>34</td>
</tr>
<tr>
<td>Recommendations</td>
<td>35</td>
</tr>
<tr>
<td>Appendix:</td>
<td>36-39</td>
</tr>
<tr>
<td>Appendix 1: Members of Project Working Group</td>
<td></td>
</tr>
<tr>
<td>Appendix 2: List of Project Reports</td>
<td></td>
</tr>
<tr>
<td>Appendix 3: Trim Electoral Area Electoral Divisions and Age Profile</td>
<td></td>
</tr>
<tr>
<td>Appendix 4: Trim PCN Older Adults Population</td>
<td></td>
</tr>
</tbody>
</table>
Background

Public health nurses (PHNs) are the largest group of nurses employed in the primary care setting and therefore have a key role to play in improving outcomes by providing quality care. An important requirement for high quality safe services is quality information. Traditional PHN service systems do not provide information that is timely or intelligent or which can equitably inform the organisation and management of contemporary PHN practice.

A more contemporary health information system was identified by an Assistant Director of Public Health Nursing (ADPHN) in a Local Health Office (LHO) County Meath as part of a nursing leadership course provided by the Nursing and Midwifery Planning and Development Unit (NMPDU). Contact was made by the ADPHN with a project leader (PL) for the Population Health Information Tool (PHIT) framework, a public health nursing health information management system, implemented in one Dublin Local Health Office and which has achieved proof of concept.

Site visits between the ADPHN and PL resulted in a meeting in September 2014 with a Director of Public Health Nursing, County Meath and a Director in the NMPDU North East. A discussion and plan to audit aspects of the PHIT framework in County Meath emerged.

Following permission to implement the project, contact was made by the ADPHN with HSE Consumer Affairs department, County Meath to clarify data protection requirements. A project Standard Operating Procedure (SOP) document was requested to outline ethical considerations and data protection measures.

A dedicated project budget was not sought or allocated. All members of the project contributed time and expertise on a voluntary basis. Information was presented to community nursing staff at Trim Primary Care Network prior to commencement and an update was presented to all community nursing staff in County Meath after implementation. The theme of these information sessions was ‘Let the Figures Speak’. Successful application of the SOP and other pre-project preparations facilitated the project to ‘go live’ on the 1st January 2015.

3 Stafford S. (2015) Comparison of Summary Caseload Outcomes PHN Service County Meath and the PHIT
4 Health Service Executive (2011) Population Health Information Tool (PHIT) changing practice to support service delivery, Office of the Nursing and Midwifery Services Director www.lenus.ie/hse/handle/10147/213010
6 Stafford S. (20/5/2015) ‘Let the Figures Speak’, Trim PCN Nursing data project, powerpoint presentation
**Introduction**

The plan agreed with the DPHN County Meath and the Director of the NMPDU provided for audit of one of the four PHIT registers and caseload analysis in two PHN caseloads in the Trim Primary Care Network area before consideration of full implementation of the PHIT in County Meath. The project was named the Trim Primary Care Network (Trim PCN) Nursing Data Project.

The PHIT paper based framework which was developed by PHNs in LHO DNC.C using an action research methodology, is a peer reviewed and published public health nursing health information framework, an electronic format achieved proof of concept and was proposed for national roll-out in 2013. The PHIT comprises four core components: care planning, patient registration, data analysis and reporting, caseload management and caseload analysis.

Patients registered in the PHIT are assigned a dependency category and a status of ‘active’ or ‘inactive’. The dependency category was developed to provide a ‘rule of thumb’ method of describing individual patient need for PHNs and is influenced by multiple factors including the dependency of the patient on the nurse, severity and complexity of a patient’s illness and care needs and the nursing time required to provide care. There are four PHIT dependency categories; health promotion, acute care, chronic stable and chronic complex care. Nursing records are considered ‘active’ for all persons aged 85 years and older and for persons with an assessed need for episodic or continuing care.

The caseload analysis guideline provides a further category of patient need namely ‘cause for concern’. This category was identified as a result of need arising from issues relating to; access to and self-management of care and health and safety within the home and community environment.

The PHIT definition for caseload analysis is ‘a process undertaken jointly by geographic caseload holders and their line managers at agreed intervals which will identify the quality of the nursing interventions and the nursing needs of a public health nursing service...

---

7 McDonald A. (2013) digiPHIT Project, Final Report to the Institute of Community Health Nursing  www.ichn.ie
8 Health Service Executive (2011) Population Health Information Tool (PHIT) changing practice to support service delivery, Office of the Nursing and Midwifery Services Director www.lenus.ie
caseload. It will contribute to resourcing of the public health nursing service, to population health and PCCC service planning generally and to professional and practice development within public health nursing.\textsuperscript{14}

Two PHNs, managing geographic caseloads in Trim PCN area and accountable to the ADPHN leading the project, volunteered services as members of the project working group (WG). Both PHNs had previous experience of managing geographic caseloads, registering older adult populations and compiling summary data. Both PHNs had recently moved work environments and were now managing geographic caseloads which were new to them.

The County Meath equivalent of a caseload analysis is an ‘annual count’ which is a two-page quantitative document providing summary information on PHN caseload outcomes (e.g. counts of infants, older adults, those with a disability and numbers of wound dressing and clinical nursing visits) which is completed by the PHN and then returned to the ADPHN.

A national requirement since 1966 is for PHNs to compile ‘a register of elderly persons, resident in their district, regular visitation of elderly persons….’\textsuperscript{15}. This requisition has resulted in the generation of lists or censuses of older adults for each PHN geographic caseload holder nationally. These registers, where available, provide basic demographic details of older adults and indicate whether a PHN has visited in a particular year. There is no requirement that patients listed should have a care plan completed.\textsuperscript{16}

However, under the PHIT framework each patient registered is assessed using a standard assessment form which guides a plan of care. Patients are assessed for independence and care needs (including activities of daily living and instrumental activities of daily living) and are subsequently registered by PHNs into one of four registers (family, acute, chronic sick / disability, and older adults). All patients 65 years of age and older referred to the PHN service are eligible for registration.

The two PHNs auditing the PHIT register continued to complete the traditional County Meath care plan documentation to assess, plan care for, and review OAs over the course of the project. Patients having assessments for Home Care Package (HCP) services had both traditional care plan assessments and Common Summary Assessment Records (CSAR) completed. Standard PHIT registration for OAs requires patient coding for; geography, caseload, marital and living status, diagnosis, and public health issues, self care and nursing treatment and outcome.

\textsuperscript{14} McDonald A. (2015) PHIT Glossary of Terms and Definitions, Clinical Documentation p10, available at www.lenus.ie/hse/handle/10147/213010
Acknowledgements
The Working Group would like to thank:

- Ms Elaine O’Connell Director of Public Health Nursing (DPHN) Local Health Office County Meath for providing permission for, and ongoing support, to the project
- Ms Deirdre Mulligan Director and Ms Dolores Donegan Assistant Director, Nursing and Midwifery Planning and Development Unit, for support and guidance
- Ms Teresa Conlon DPHN and Ms Angela Kennedy DPHN LHO Dublin North City / Central for providing, permission to partake in the Trim PCN project, and support to the PHIT PL
- Dr. Kate Frazer HRB Cochrane Fellow and Lecturer University College Dublin for advice and editing of the report
- Ms Alexia McKenna HSE Consumer Affairs for data protection guidance
- Ms Mary O’Hare, Primary Care Network Administrator who supplied list of Health Centres and Electoral Divisions in Trim Primary Care Network
- Mr Eugene Boyle, Health Information Unit, Dr. Steevens Hospital for supplying maps of Trim Primary Care Network
- Ms Grainne Gaffney ADPHN County Meath and Ms Sinead Taaffe PHN County Meath and the community nursing staff of County Meath for ongoing support
Abbreviations List

ADPHN = Assistant Director of Public Health Nursing

CA = Caseload Analysis

CHO = Community Healthcare Organisation

CM = Caseload Manager

CSAR = Common Summary Assessment Record

CSO = Central Statistics Office

DNC.C = Dublin North City / Central

ED = Electoral Division

HCP = Home Care Package

HSE = Health Service Executive

OA = Older Adults, those 65 years of age and over

NMPDU = Nursing and Midwifery Planning and Development Unit

PHIT = Population Health Information Tool

PHN = Public Health Nurse

PL = Project Leader (PHIT) of the original PHIT project in LHO DNC.C

SAPS = Small Areas Population Statistics

SI = Street Index

TOR = Terms of Reference

Trim PCC = Trim Primary Care Centre

Trim PCN = Trim Primary Care Network

WG = Working Group
Methodology

Aim

The aim of this project was to audit elements of the Population Health Information Tool (PHIT) framework for public health nursing caseloads at Trim Primary Care Network.

Design

The project involved auditing traditional PHN caseload registration and caseload analysis practices and supporting documentation for older adults currently in use in County Meath against a formal registration and caseload analysis method developed in another region. Two PHNs, managing geographic caseloads within Trim Primary Care Network, volunteered their time and input on the project. The two PHNs collected data for one of four PHIT register templates, namely the ‘Older Adults Register’ and contributed to a caseload analysis process for this population subgroup within a timeframe of nine months.

For the purpose of the project, the two PHNs were identified as PHN 1 and PHN 2. Ongoing support for the project was provided to the PHNs by their line manager (the project ADPHN) and the PHIT PL. Interval WG meetings allowed for discussion and informal feedback on project outcomes.

Following discussion with the DPHN for County Meath and the Director of Nursing for the NMPDU, need for a formalised evaluation was considered unnecessary as peer review and proof of concept for the PHIT had been achieved in another area. The project outcomes are:

- Trim community profile and Street Index
- experiences of the WG members
- data collected in the registers
- completed CA templates
- core project reports

---

18 Two project caseloads at Trim PCN, one at Enfield Health Centre and one at Trim PCC
20 McDonald A. (2013) digiPHIT Project, Final Report to the Institute of Community Health Nursing [www.ichn.ie](http://www.ichn.ie)
Project Preparation

September – December 2014
Preparation for the change-over to collection of PHIT Older Adults (OA) data commenced October 2014, prior to the ‘go-live’ phase. A Terms of Reference (TOR) document, to describe the scope of the project, was drafted and agreed by the WG\textsuperscript{21}. The project PHNs were provided with: printed patient registers, training on data entry and summary, and a guidance document to support patient registration.

Data Collection

Data were collected by the following methods:

- **Demographic Profile of County Meath and Trim PCN**
  - A profile of County Meath and the Trim PCN was compiled to provide a context for data outcomes
  - Contact made with HSE Health Information Unit provided a map of Trim Primary Care Network to support the profile

- **Project Meetings and Reports:**
  The project Working Group (WG) met on nine occasions, eight in Trim Primary Care Network Centre and on one occasion in the HSE Regional Offices in Kells, County Meath allowing discussion and feedback. A list of the project reports is available at Appendix 2.

- **Patient Registers:**
  - Each PHN created a template of OA patients’ names and addresses currently listed in the traditional register for their new caseload.
  - The lists of patients’ names and addresses were entered into an Excel sheet and printed and returned providing a template for auditing registration data.
  - In order to experience the PHIT system of coding, PHNs entered data previously recorded in care plans by nursing colleagues into the printed register and noted that:
    - There was insufficient information in the traditional care plans for PHNs to fully complete the registration process.
    - Care plans archived as inactive were included in the list which increased the overall numbers registered.

\textsuperscript{21} Stafford S, McDonald A. (2014) Terms of Reference, Trim PCN Nursing Data Project
• There was a need for a glossary of terms and definitions to support valid and reliable registration which resulted in the development of a PHIT Glossary which is available on www.lenus.ie\(^{22}\).

• **Summary Data:**
  - Preliminary data was entered from the PHIT registers into Excel sheets and analysed and presented at meetings and in a project report\(^{23}\).
  - End of project data was transferred from the refreshed paper based registers into secure Excel sheets and analysed and reported.

• **Comparison of County Meath and PHIT Registration:**
  - The need to provide a comprehensive comparison of core items collected by County Meath and PHIT register templates and caseload analyses documentation was identified at a WG meeting and the comparison was undertaken and documented in a project report\(^{24}\).

• **Street Index:**
  - A Street Index (SI) for each of the two caseloads, similar to the SI compiled for LHO Dublin North City / Central (DNC.C) the site of the original project was drafted.
  - Collaboration with the All-Island Research Laboratory (AIRO) provided a solution to overcome issues identified in generating a rural SI comprised of townlands.

• **Caseload Analysis:**
  - The Caseload Analysis process was implemented with both PHNs in August 2015 following submission of summary caseload outcomes which were documented in a report\(^{25}\).
  - Completion of summary data identified the need for a more efficient method of collecting data on nursing treatments an auto-sum Excel sheet was developed to address this need.

• **Project Report:**
  - The final project report was drafted, reviewed and signed off during the months of September to December 2015.

\(^{22}\) McDonald A. (2015) PHIT Glossary of Terms and Definitions, Clinical Documentation available at www.lenus.ie/hse/handle/10147/213010

\(^{23}\) McDonald A. (2015) Trim PCN Nursing Data Project, Older Adult Care Plan Registration Data

\(^{24}\) Stafford S. (2015) Comparison of Summary Caseload Outcomes PHN Service County Meath and the PHIT

\(^{25}\) Stafford S. (2015) Discussion on the Caseload Analysis process
Ethical Considerations

In order to provide optimum services, public health nurses (PHNs) in County Meath routinely maintain registers of OAs resident in their geographic caseloads. Auditing the PHIT framework with PHN caseloads in Trim, County Meath provided a standardised approach to the registration process and allowed for future practice developments.

No formal ethical approval was sought for the project and consent was provided by the Director of Public Health Nursing, Ms Elaine O’Connell following discussions. A Standard Operating Procedure (SOP) outlining the projects aim and design, ethical and data protection considerations was drafted by the project leaders, HSE Consumer Affairs were consulted with during this process.

Patient data was shared within the PHN line management function and with the PHIT Project Leader in HSE LHO DNC.C during the project. Specific guidance for data collected under the project was outlined in the SOP.

Data Protection

Public health nursing documentation is regulated and guided by An Bord Altranais agus Cnaimhseachais, the Data Protection Act (Government of Ireland 2003), the Freedom of Information Act (Government of Ireland 1997) and guided by the Health Information and Quality Authority (2012), the Health Service Executive (2010, 2013, 2013), the Data Protection Commissioner (2007) and the HSE Data Breach Guidelines (2010).

Nurses working under the Trim PCN Nursing data project are guided by the above policies and guidelines and by the Trim PCN Nursing Data Project Patient Registration Guidance.

The following data protection procedures specific to the project were outlined in the SOP:

28 An Bord Altranais (2002) Recording Clinical Practice Guidelines to Nurses and Midwives
33 Health Service Executive (2013) Record Retention Periods, Health Service Policy 2013 www.hse.ie
The data manager, the PHIT PL saves the Trim PCN project patient data to a dedicated space on the HSE server in line with HSE Consumer Affairs guidance. The PHIT PL alone has access to the file on the server from a desktop computer. The desktop computer is password protected and based at a HSE health centre. Data in the Excel sheet is not shared with any other agency or discipline. When returning printed patient registers to project nurses the envelopes are marked ‘Strictly Private and Confidential’ and forwarded by registered post. Information reported from the data analysis is made anonymous guaranteeing that no individual patient can be identified. Draft articles and reports from this and future related projects are sent for proofing to HSE Consumer Affairs for review should there be any data protection concerns. Any breach of data protection is reported and a HSE Data Breach Incident Report form completed in line with the HSE Data Breach Management Policy. Data from the two PHN caseloads in the Trim PCN Nursing Data Project will be held for a maximum of one year before deletion to allow decision on the feasibility of future implementation of the PHIT in County Meath and subsequent transfer of data to the HSE server in County Meath. 

Results

The results are reported under the following five headings:

1) Trim Profile and Street Index
2) Project Report: Comparison of Meath and PHIT Outcomes
3) Outcomes from Project Minutes of Meetings
4) Summary Older Adults Registration Data
5) Caseload Analysis Outcomes

1) Trim Population Profile, Street Index and Maps

Population Profile

County Meath is one of the thirty-two counties in the Republic of Ireland (see image below) and has a population of 184,135 and 16,322 (8.8%) of these are 65 years of age and over. Of the 92 EDs in County Meath, most, 58 have marginally below average deprivation levels while 34 have marginally above average, the most disadvantaged EDs being Kells Urban and Kilmainham, the most affluent EDs being Ratoath, Kilbrew, Dunboyne and Culmullin.

Trim is one of 6 Local Electoral Areas in County Meath the remaining 5 are: Ashbourne, Kells, Laytown-Bettystown, Navan and Ratoath. The Local Electoral Area (LEA) of Trim has a population of 29,052 or 15.7% of the population of County Meath, and consists of 22 Electoral Divisions (EDs) (see Appendix 3).

The OA population in Trim LEA is 9% which is 2.6% less than that recorded in Census 2011 for the Republic of Ireland (www.cso.ie). Of this OA population 319 (1%) are 85 years of age and over which is 0.2% less than that recorded in Census 2011 for the Republic of Ireland.

---

40 Central Statistics Office, Census 2011 Area Profile for County Meath, available at www.cso.ie
41 Engling F, & Haase T.(2013) The 2011 Pobal HP Deprivation Index, Area Profile for County Meath
Trim Primary Care Network (Trim PCN) is the geographic area which surrounds Trim Primary Care Centre encompassing five Health Centres which provide primary care services to a total population of 35,261 or 19% of the population of County Meath, see Map 1 below.

The Trim PCN includes 26 EDs, all 22 EDs from Trim LEA and a further 4 EDs. The four EDs included in the Trim PCN but not included in the Trim LEA are Athboy, Grennanstown and Rathmore from the Kells LEA and Robinstown from the Navan LEA.

Map 1: Trim Primary Care Network
Supplied by Mr Eugene Boyle, Health HSE Health Information Unit, Dr. Steevens Hospital, Dublin 8.

Trim PCN has an OA population of 9.6% (calculated from the Small Area Population Statistics (SAPS) [www.cso.ie](http://www.cso.ie)) (Appendix 4) which is 0.8% greater than that for County Meath. The OA population of LHO DNC.C is 12.34% or 2.74% greater than that for Trim PCN this fact is notable when comparing project outcomes with those from the PHIT.

The catchment area of Trim has an overall index score of 0.6 (scores range from -40 most disadvantaged to +40 most affluent) and shows a marginally higher than average proportion of professional classes at 36%\(^{42}\).

---

\(^{42}\)Engling F, & Haase T.(2013) The 2011 Pobal HP Deprivation Index, Area Profile for County Meath
Street Index

A Street Index (SI) coded for Electoral Division supports caseload management and analysis and population health outcomes by facilitating comparison of caseload data with census small area profiles (SAPS). The day to day purpose of a SI is to provide a comprehensive list of streets identifying the geographic area for which the PHN service is accountable, facilitating patient registration, hospital discharge and integrated care and other referral processes.  

Development of the SI began when lists of streets were compiled from patient addresses in PHNs hand written registers. A PHN caseload list was subsequently sourced from primary care showing townlands, EDs and housing estates separately. Both of these lists provide townland and ED titles but do not refer to EDs by their assigned census numeration.

A list of EDs in Trim LEA generated from Small Area Population Statistics from the CSO website (Appendix 3) assigns the ED number. The list of Health Centres and EDs in Trim PCN provided by the primary care network administrator is presented by ED title only and not ED enumeration (Appendix 4).

The PHIT PL made contact with Meath County Council and received a list of EDs and their respective townlands which includes changes made following the most recent election. When comparing the two lists, many of the spellings are different and some of the townlands are allocated to different EDs, Trim Town as an ED is obsolete and incorporated into Trim Rural ED in the Meath County Council list.

The challenge in developing a SI for a rural population is identifying which house resides in a townland and an Electoral Division. Contact with developers of the new All-Island Research Observatory (AIRO) confirms that the recently launched Eircode system provides for a unique identifier for pinpointing and distinguishing residences. For a small fee a rural SI can be compiled and continued upgrade of the index can be provided by new referrals to the PHN service.

---

43 PHN Service LHO DNC/C (2015) PHIT Guideline for Street Index
2) Comparison of Outcomes Report

The following are the core items identified following audit of the County Meath Older Adults Register and Caseload Analysis against the PHIT:

**Older Adults Register**

Comparison of the Older Adult’s register traditionally used by the project PHNs with the PHIT Older Adults Register highlighted the points listed at a) and b) differences in the two systems relate to standard PHN practices and population health outcomes:

a) **The County Meath** OA register records seven demographic items and indicates whether the patient has a care plan, a space for ‘other details’ is also provided. There are no written guidelines on the registration process and the client remains on the register until they move address or die regardless of nursing need. The register does not effectively identify need or guide the prioritisation of cases.

b) **The PHIT** OA register has a guidance document outlining the purpose of the register and a glossary of terms and definitions underpinning the demographic and other information reported. Clients are recorded as ‘active’ or ‘inactive’ and standards for minimum reviews provided facilitating safe practice and caseload management. The register facilitates summary reporting and caseload analysis providing for nursing, social and epidemiological outcomes.

**Annual Caseload Outcomes (Older Adults)**

The PHN geographic outcomes were traditionally compiled annually by a project ADPHN in County Meath and known as an ‘annual count’. This method was compared with the PHIT caseload analysis process and the points listed at c) and d) below outline opportunities missed by the traditional method for collaborative practice, professional development, community health profiling and public health outcomes:

c) **The County Meath** ‘annual count’ process makes little connection between the register of clients and the work undertaken by the nurse in meeting the needs of clients. Validity and reliability may be compromised by lack of standard guidance for, and audit of, documentation. Face to face meetings to verify outcomes or discussing clinical decision making in relation to complex cases is not a routine exercise. It does not request information on the quality of the working environment or on workload items such as school health, pharmacy and stationery ordering or investment in student mentorship / preceptorship.

---

44 Stafford S.(2015) Comparison of Summary Caseload Outcomes PHN Service County Meath and the PHIT
The County Meath ‘annual count’ does not collect ‘tacit’ information gleaned by the CM from day to day contact with key people and services within the community to contribute to a community health profile. Nor does it produce action plans based on overall outcomes identified or plan health promotion activities. It therefore does not reflect the nursing or population health need within a caseload and does little to direct the nurse in managing her caseload or identifying her own training needs.

The County Meath ‘annual count’ is not aligned to a geographic context e.g. Census Electoral Divisions, reducing potential for social, demographic or epidemiological information. It therefore cannot provide valid outcomes to advocate for resources or to contribute to planning of services at caseload or primary care level and does not provide a governance framework to facilitate supervision or accountability.

d) The PHIT Caseload Analysis (CA) process undertaken jointly between the caseload PHN and the line manager ADPHN is documented in a 17 page template. It supports clinical governance and caseload management by providing for standard clinical practices, the prioritising of cases, the audit of documentation and by highlighting the unseen administrative and other work undertaken by PHNs to ensure effective service provision.

The PHIT CA reflects nursing activity, patient need and dependency and documents social, demographic and epidemiological information. It incorporates both quantitative and qualitative data which can be used in a meaningful way to plan and resource the PHN service and primary care services generally. It puts a focus on population health initiatives undertaken or planned by caseload managers and highlights the continuing professional development needs of nurses.
2) Outcomes from Project Minutes of Meetings

Feedback shared by the two project PHNs at meetings provided evidence of the difference between the two registration processes and the need for a comprehensive care plan and written standards as described in the comments below:

- The County Meath Care Plan record does not fully support the PHIT registration process and some items such as smoking profile are not collected.
- Registration of County Meath patient care plans reveals that a considerable number are archived as ‘inactive’ and not registered, some patients have two care plans filed separately.
- Different standards are used across the 2 project caseloads for archiving patient records and assigning to ‘inactive’ status.
- The PHIT register provides more information about the patients ‘at a glance’.
- Benefits of the register are seen as a real time information tool for PHN practice to assist with case management and service provision.
- The PHIT register supports caseload management.
- Time taken to move over to the new system without ‘protected’ time allocated.

Three months after the project commenced, both PHNs were more familiar with the registration process and this was evidenced by their comments and recommendations during this time. The following statements were made by project PHNs and recorded in the minutes of meetings:

- Using register more often to prioritise work and for updating care plans.
- Finding it easier to make decisions on clients dependency levels.
- Register helpful in focusing and really thinking about the purpose of the visit.
- Assigning patients to ‘active’ and ‘inactive’ status very beneficial, to support this process the ADPHN will develop a standard letter to forward to primary care team members to alert when PHNs assign cases to ‘inactive’ status.
- Would have been more beneficial to audit the Acute Care Register simultaneously to capture episodes of acute care and to assist when assigning dependency levels to individual patients.
- Referrals to primary care team have increased as ‘inactive’ patients are referred when case is re-opened - it was agreed that this process of referral would be included as a standard procedure in the project registration guidance document.
- Need for glossary of data definitions to provide standard nursing language.
- Recording treatments provided in the nurses diary following each assessment would support estimation of summary data.
- All patients listed must have a care plan and this is requested and recorded in the Caseload Analysis document.
Excerpts from project minutes contributed by all members described the changing environment of PHN practice and the need and demand for practice developments are outlined below:

- Need identified for standard environmental assessment of the home setting for use in community nursing care planning
- Impact of Home Care Packages and case reviews on PHN case finding practices – concerns that early detection will not happen due to pressure to review known cases. The impact of this on practice is to change public health nursing practice from case finding to a ‘hospital in the home’ model.
- ‘Real community / public health nursing has all but disappeared’ e.g. primary prevention to all age groups including school health
- Documentation practice issues identified by PHNs under Trim PCN project mirror issues which prompted the original PHIT project
- Caseload analysis provides the ‘story’ of the caseload and has great value in facilitating information sharing for any changes with staff
- Need for documentation to align with future HSE Workload and Performance Measures and Quality Care-Metrics systems
- Feedback on the presentation to nursing staff in County Meath in May 2015 was very well received and nurses showed interest in the project
- Both project PHNs would prefer to continue using the PHIT framework than to return to the traditional system of registration and summary
- An LHO wide implementation of the new registers would require an evidence based change management project including:
  - Training Programme
  - Train the Trainers Programme
  - Dedicated project lead
  - Dedicated IT personnel
3) Summary Older Adults Register Data

Older Adults’ data was collected in registers and summarised by PHNs and reported in a Caseload Analysis template. The PHNs identified that information flowed easily from the register however calculation of nursing treatments presented a challenge as they had to continually review their diaries to access information.

The Acute Care Register which is one of the four PHIT Registers was not audited during the Trim PCN project. Information on treatment type and frequency is routinely requested in the Acute Care Register and patients registered represent 79% of all older adults admitted to the PHN service. To respond to the challenge identified by the project PHNs an auto-sum Excel template was developed to allow for daily entry and automatic summing of nursing treatments. This template is now also in use in LHO DNC.C, the original project site.

The data presented below is the combined analysis of the two project PHNs’ registers following entry into an Excel sheet showing the range of PHIT outcomes available for older adults. Data collected provides a baseline for comparison across; caseloads, Community Healthcare Organisations, and trends over time. The combined data from the two caseloads is compared with national data and also with data from 43 caseloads in LHO DNC.C in order to present a full range of outcomes.
Age Groups

A relatively small number (184) of OAs are registered compared with average caseloads registered in LHO DNC.C which has an older demographic profile. Most (57%) of these older adults are aged between 75 and 84 years and 26% are aged 85 years of age and older (Table 1). Of the 184 OAs, 53% are reported as ‘active’. An estimate usage of PHN services by age identified higher proportions of use in those aged 70 years and older and a proportion of 33% in those 85 years of age and over.\(^{45}\)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>65-74yrs</td>
<td>31</td>
<td>17%</td>
</tr>
<tr>
<td>75-84yrs</td>
<td>105</td>
<td>57%</td>
</tr>
<tr>
<td>85yrs+</td>
<td>47</td>
<td>26%</td>
</tr>
</tbody>
</table>

Table 1: Age Groups in Trim PCN Project caseloads

Gender

Two thirds (66%) of older adults are female (Table 2) and this proportion is similar to those identified in the PHIT in LHO DNC.C. A higher proportion of usage of PHN services by females was also reported in a TILDA report.\(^{46}\)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>62</td>
<td>34%</td>
</tr>
<tr>
<td>Female</td>
<td>122</td>
<td>66%</td>
</tr>
</tbody>
</table>

Table 2: Gender in Trim PCN Project caseloads

---

\(^{45}\) Murphy C. (2015) Topic Report: Demographic and Health Profile of older adults utilising public health nursing services in Ireland: Findings from the Longitudinal Study on Ageing (TILDA) [www.tilda.ie](http://www.tilda.ie)

\(^{46}\) Murphy C. (2015) Topic Report: Demographic and Health Profile of older adults utilising public health nursing services in Ireland: Findings from the Longitudinal Study on Ageing (TILDA) [www.tilda.ie](http://www.tilda.ie)
**Living Status**

Most older adults lived with a partner (36%), lived alone (33%) or lived with family (27%) (Table 3). Older adults in LHO DNC.C\(^{47}\) are more likely to live alone and similar results are reported by Murphy\(^ {48}\).

Table 3: Living Status Older Adults in Trim PCN Project caseloads

<table>
<thead>
<tr>
<th>Living Status</th>
<th>Numbers</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alone</td>
<td>57</td>
<td>33%</td>
</tr>
<tr>
<td>With Partner</td>
<td>63</td>
<td>36%</td>
</tr>
<tr>
<td>With Family</td>
<td>47</td>
<td>27%</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>4%</td>
</tr>
</tbody>
</table>

**Marital Status**

Older adults were more likely to be widowed (42%), or married (39%) (Table 4) providing similar results to LHO DNC.C

Table 4: Marital Status in Older Adults Trim PCN Project caseloads

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>23</td>
<td>13%</td>
</tr>
<tr>
<td>Married</td>
<td>67</td>
<td>39%</td>
</tr>
<tr>
<td>Widowed</td>
<td>71</td>
<td>42%</td>
</tr>
<tr>
<td>Separated / Divorced</td>
<td>4</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>4%</td>
</tr>
</tbody>
</table>

---

\(^{47}\) McDonald A (2015) PHIT Older Adults Report 2015 Marino Health Centre

\(^{48}\) Murphy C. (2015) Topic Report: Demographic and Health Profile of older adults utilising public health nursing services in Ireland: Findings from the Longitudinal Study on Ageing (TILDA) [www.tilda.ie](http://www.tilda.ie)
Smoking Profile

The smoking profile identified 5% of OAs were current smokers and 62% were identified as never smokers (Table 5). The HSE in 2014 identified that 10% of older adults are current smokers\textsuperscript{49} fewer older people in Trim are smoking.

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|}
\hline
 & Ever & Currently & Never \\
\hline
\textbf{Numbers} & 36 & 5 & 68 \\
\textbf{%} & 33\% & 5\% & 62\% \\
\hline
\end{tabular}
\caption{Smoking Profile in Older Adults Trim PCN Project caseloads}
\end{table}

**Self Care Management**

Over 41% of OAs identified that they were caring for themselves independently some of these OAs achieved independence as a result of receiving some level of formal and / or informal support (Table 6). This proportion is lower than averages recently reported in LHO DNC.C (59%)\(^{50}\). The Trim PCN project proportion of OAs with an informal carer is 8% compared with 14% in LHO DNC.C and a 3.8% proportion reported for Dublin City \(^{51}\).

The proportion of those in receipt of home help services was 14% the proportion attending day-care 13% (Table 6) which is much greater than that reported by Tilda for day-care attendance nationally (1.5%)\(^{52}\).

The proportion of those bedbound / housebound is 21% (Table 6) twice the proportion estimated by the PHIT. The 21% reported as bedbound / housebound in Trim represents 25 patients, 22 of whom have a HSE home care package in place.

![Self Care in Older Adults](image)

**Table 6: Self care in Older Adults Trim PCN Project caseloads**

<table>
<thead>
<tr>
<th>Service</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent</td>
<td>49</td>
<td>41%</td>
</tr>
<tr>
<td>Bedbound / Housebound</td>
<td>25</td>
<td>21%</td>
</tr>
<tr>
<td>Daycare / Workshop</td>
<td>15</td>
<td>13%</td>
</tr>
<tr>
<td>Has Informal Carer</td>
<td>9</td>
<td>8%</td>
</tr>
<tr>
<td>Home Help</td>
<td>17</td>
<td>14%</td>
</tr>
<tr>
<td>Meals on Wheels</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Declined Care</td>
<td>3</td>
<td>2%</td>
</tr>
</tbody>
</table>

\(^{50}\) McDonald A (2015) PHIT Older Adults Report 2015 Marino Health Centre


Diagnosis

A total of 375 diagnoses are reported from a 16 item list and all OAs have at least one with many having 2 or more diagnoses. Patients are more likely to have a diagnosis of Cardiovascular Disease (23%) and Arthritis (16%) similar to PHIT outcomes (Table 7). The proportion needing wound care treatments (4%) is lower than PHIT proportions (17%)\textsuperscript{53}.

<table>
<thead>
<tr>
<th>Diagnosis / Risk Factor</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular Disease</td>
<td>87</td>
<td>23%</td>
</tr>
<tr>
<td>Arthritis</td>
<td>61</td>
<td>16%</td>
</tr>
<tr>
<td>Urinary Incontinence</td>
<td>54</td>
<td>14%</td>
</tr>
<tr>
<td>Risk of Falls</td>
<td>28</td>
<td>7%</td>
</tr>
<tr>
<td>Cancer</td>
<td>20</td>
<td>5%</td>
</tr>
<tr>
<td>Wound Care</td>
<td>16</td>
<td>4%</td>
</tr>
<tr>
<td>Respiratory Disease</td>
<td>16</td>
<td>4%</td>
</tr>
<tr>
<td>Type 2 Diabetes</td>
<td>14</td>
<td>4%</td>
</tr>
<tr>
<td>Vision / Hearing Loss</td>
<td>13</td>
<td>3%</td>
</tr>
<tr>
<td>Mental Health</td>
<td>11</td>
<td>3%</td>
</tr>
<tr>
<td>Gastro Intestinal Disease</td>
<td>10</td>
<td>3%</td>
</tr>
<tr>
<td>Renal Disease</td>
<td>8</td>
<td>2%</td>
</tr>
<tr>
<td>Dementia</td>
<td>7</td>
<td>2%</td>
</tr>
<tr>
<td>Risk of Self Harm / Neglect</td>
<td>6</td>
<td>2%</td>
</tr>
<tr>
<td>Faecal Incontinence</td>
<td>5</td>
<td>1%</td>
</tr>
<tr>
<td>Multiple Sclerosis</td>
<td>3</td>
<td>1%</td>
</tr>
<tr>
<td>Alzheimers Disease</td>
<td>3</td>
<td>1%</td>
</tr>
<tr>
<td>Physical / Sensory Disability</td>
<td>2</td>
<td>0.50%</td>
</tr>
<tr>
<td>Risk of Elder Abuse</td>
<td>2</td>
<td>0.50%</td>
</tr>
<tr>
<td>Type I Diabetes</td>
<td>2</td>
<td>0.50%</td>
</tr>
<tr>
<td>other Neurological Diseases</td>
<td>2</td>
<td>0.50%</td>
</tr>
<tr>
<td>Palliative Care</td>
<td>2</td>
<td>0.50%</td>
</tr>
<tr>
<td>Stoma</td>
<td>1</td>
<td>0.30%</td>
</tr>
<tr>
<td>Motor Neurone Disease</td>
<td>1</td>
<td>0.30%</td>
</tr>
<tr>
<td>Accidental Injury</td>
<td>1</td>
<td>0.30%</td>
</tr>
</tbody>
</table>

\textsuperscript{53} McDonald A (2015) PHIT Older Adults Report 2015 Marino Health Centre
Dependency Category

The four item dependency category was reported for 86 (47%) of project OAs (Table 8). The project caseloads showed a lower proportion 51% having need for health promotion than PHIT caseloads (65%).

Health promotion includes referral to other services to promote health and provide a safe living environment e.g. occupational therapy, physiotherapy, continence, chiropody, personal alarm, flu vaccine, vision, hearing, respite care, dentist, social welfare benefits.

The project caseloads showed a higher proportion of OAs with chronic stable conditions (36%) than the PHIT (23%).

<table>
<thead>
<tr>
<th></th>
<th>Numbers</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Promotion</td>
<td>44</td>
<td>51%</td>
</tr>
<tr>
<td>Acute</td>
<td>6</td>
<td>7%</td>
</tr>
<tr>
<td>Chronic Stable</td>
<td>31</td>
<td>36%</td>
</tr>
<tr>
<td>Chronic Complex</td>
<td>5</td>
<td>6%</td>
</tr>
</tbody>
</table>

Home Care Packages

Of the 184 Older Adults on register 43 (23%) are reported as having a Home Care Package in place.
4) Caseload Analysis Outcomes

The caseload analysis (CA) methodology was undertaken in July 2015 guided by the CA guideline document and CA process, and discussed at a WG meeting in August 2015. A minimum of two hours was required to complete the CA process with each PHN attending a meeting at an agreed time and venue. Outcomes reported highlight each nurse’s experience of undertaking the CA process and provided examples of tacit knowledge gleaned from working with systems and communities and caseload outcomes for the older adult population.

One PHN reported that

‘it was the first time ever that I have had an in-depth discussion with management on a caseload’ and that in the past ‘problems were only discussed when at crisis level’ and the CA experience was ‘a pro-active way at looking at caseloads’. This PHN acknowledged that it made her more aware of services within her area and she felt that she ‘knew her area better as result’.

The CA process requested information on the environment in which the caseload work was managed. One of the PHNs reported having particularly good ‘office’ conditions.

Insights gained by PHNs from the environment of their day to day work with and within communities included; ‘there is a good community spirit’, ‘the village lacks a permanent Garda presence and house burglaries are common and a constant fear’, and ‘it is part of the Dublin commuter belt and during the Celtic Tiger years a lot of families moved out and on the whole are happy with their new location’.

The most frequently occurring medical diagnoses reported in both caseloads was cardiovascular disease and arthritis. The connection between these diseases and older adults identified as ‘at risk of falls’ prompted one of the PHNs to discuss these public health outcomes at a primary care team meeting with a view to working with the physiotherapy department on a falls prevention programme.

Both nurses found it useful to discuss ‘cause for concern’ cases. One PHN reported that discussion of a patient with complex care in relation to pressure ulcer risk and adherence to care planning provided for a unique solution by the ADPHN. This practical solution based on the ADPHNs previous experience provided for a significant reduction in the risk of pressure ulceration. The PHN appreciated the time allowed to discuss this case in a pro-active manner and admitted that she would not have brought it to the ADPHNs attention had it not been included under the definition of ‘cause for concern’ cases.

---

The impact of new systems such as the Home Care Package Scheme\(^{55}\), with standards and requirements for set patterns of patient review, on the overall PHN range of interventions was discussed. It was agreed that the demands on the PHN service to comply with HCP review visits, irrespective of whether these were considered a PHN service priority, has redirected services away from the PHN intervention of case finding.

Case finding locates those most at risk and links them to services, case finding is a cornerstone of public health nursing providing for early detection of problems and appropriate interventions\(^{56}\). Patients listed on registers were therefore more likely to have a secondary or tertiary rather than a health promotion need.

Evidence that the CA process provided an impetus for PHNs to think and work at systems and community levels was further provided when one PHN noted that the CA process caused her to focus on facilities in the community which she ‘hadn’t really paid that much attention to’ citing the example of collaboration with a local preschool\(^{57}\). Another PHN was surprised to see that a large number (of older adults) attended a local day care centre and noticed that ‘over half of her older adult clients had home support services’.

When completing information in the CA template on school health outcomes, nurses noted that despite time constraints the fact that they did not provide school health screening interventions should not exclude them from networking with schools and responding to health promotion needs.

The PHNs noted that the CA process allowed for feedback on caseload and workload activity undertaken and that as PHNs ‘we don’t give ourselves enough credit for all the work we do’ and ‘it really helps as you are carrying a lot unknown to yourself’. One PHN said that she also got job satisfaction from enabling a client to go from ‘active’ to ‘inactive’ status as ‘it felt like a job of work well done’. Both PHNs reported that the CA process had changed the focus from figures and number of clients to quality of work.

Public health nurses in Trim PCN routinely refer all new cases to primary care. Despite the fact that PHNs consider they manage significantly larger caseloads than their primary care counterparts, new patient referrals by PHNs to primary care are traditionally considered low in number in comparison with other primary care disciplines. The practice, which commenced under the project, of assigning the status of active or inactive to OA cases


resulted in an increase of referrals to primary care as re-activated cases were considered as new referrals.

The new system of assigning patient status required the PHN to refer the re-activated case to primary care highlighting new episodes of nursing care need. This also provided for PHN service boundaries and clarification on the patient’s care need i.e. if the care need is for occupational therapy or physiotherapy there is little justification for the PHN service holding the case as active. It also supported patients to self manage their own care providing for self referral to a range of primary care services.

Feedback from the ADPHN facilitating the CA process recognised core elements of clinical governance, supervision and accountability within the process and included the following comments;

‘I found the process very beneficial and felt I had a good knowledge of the caseloads and the issues’

‘It builds on a good and open working relationship with the nurse’

‘I had a record of ‘cause for concern’ patients and the action plans agreed’

‘The process kept me grounded in what the job is about because this can be lost in the day to day bureaucracies’

‘I also feel that the CA is a ‘true’ reflection of the nurse’s workload and enables me to allocate resources fairly amongst staff’

‘I am now in a position to advocate for services with confidence’
Summary

Motivation for the project emanated from a desire for a standardised public health nursing health information system which would provide valid and reliable outcomes for equitable distribution of resources and for service planning in primary care.

Traditional registration documentation maintained by the project PHNs in Trim PCN contained minimal demographic information and registration practices varied significantly between the two traditional caseloads audited.

The ‘annual count’ of patients also provided limited information without a social, demographic or epidemiological context failing to reflect nursing interventions or population health need. An opportunity to advocate for nursing resources or contribute to service planning using a PHN service evidence base was therefore missed.

Trim Primary Care Network (9.6%) has a younger older adult population than the Republic of Ireland (11.6%) and LHO DNC.C (12.34%). Data outcomes, based on the two caseloads, show relatively small caseload size comprising younger older adults with more complex need and higher proportions of housebound / bedbound patients and of those attending day care services. Older adult patients in the Trim caseloads are less likely to live alone, to be single, to be independent, to have informal carers or to receive health promotion interventions from the PHN service.

Cardiovascular disease and arthritis are the two most frequently reported diagnoses in both the project caseloads and in LHO DNC.C. Migration to an electronic solution will integrate healthcare terminology such as SnomedCT providing for a more comprehensive list of diagnosis and risk factors58.

The combined project caseloads were compared with the 43 caseloads in LHO DNC.C to present information on items such as PHN dependency categories that are not reckoned nationally. When project and PHIT diagnosis outcomes are compared the difference in demographic and deprivation profiles are highlighted; cancer, risk of falls, and wound care are all lower in the project caseload population than in the LHO DNC.C caseloads and project OAs are less likely to smoke than the general population.

Project nurses using the PHIT as an audit tool identified the benefits of comprehensive registration processes within a governance framework. They stated that it assisted with case management providing more information about patients ‘at a glance’. Every patient listed had a care plan opened and was assigned to an electoral division, a caseload code, a dependency category and active or inactive status.

58 International Health Terminology Standards Development Organisation, Snomed CT www.ihtsd.org
Following development of the registration process nurses used the register to prioritise work and for reviewing care plans commenting that the register was ‘helpful in focusing and really thinking about the purpose of the visit’. When registering patients, nurses identified shortcomings in the traditional care plan documentation. They identified a need for standardised care planning guidance supported by evidence based nursing policies and a glossary of terms and definitions.

Assigning patients to active or inactive status was seen as beneficial when prioritising cases and streamlining caseloads, one nurse commented that enabling a client to go from active to inactive status provided job satisfaction for her.

The assignment of patients to a dependency level also played a significant part in case prioritisation. Simultaneous implementation of the PHIT Acute Register would have assisted with the process of assigning dependency levels as all patients listed in the Acute Register are considered Level 1 Dependency.

Another benefit identified from assigning ‘inactive’ status is that when re-activating a case a primary care team referral is forwarded making the new episode visible and increasing the overall number of PHN referrals to primary care. Reporting patient ‘inactive’ status to the multi-disciplinary team also aids in making the nursing boundary in primary care visible and supports patients in self-referral and self-management of their care.

The discussion of ‘cause for concern’ cases within the caseload analysis process proved to be beneficial in relation to reduction of risk in a client with identified pressure ulcer risk. Population health outcomes identified in the caseload analysis process linked high proportions of cardiovascular disease and arthritis to risk of falls in older adults and provided evidence for the caseload manager to progress a service development of a fall prevention programme within primary care.

The caseload analysis process made nurses more aware of the importance of caseload management and analysis. One PHN commented; ‘it was the first time ever that I have had an in-depth discussion with management on caseload’. Discussion of the caseload work at systems level showed that the caseload analysis process increased their awareness of and prompted nurses to work at systems and community level. It also aided them in identifying a relatively new service which had the potential to impact negatively on PHN practice i.e. Home Care Packages, by increasing work in secondary and tertiary care and reducing case finding interventions. A visiting schedule for older adults similar to that in child health to ensure all clients receive community nursing input rather than just those with known high
need has been recently proposed and outcomes from this audit and the PHIT standard for case review would support such an initiative.\textsuperscript{59}

Undertaking the caseload analysis process had hidden benefits for nurses in that they were able to quantify the work undertaken at caseload level and prompted one nurse to comment ‘we don’t give ourselves enough credit for all of the work we do’. Tacit knowledge absorbed by nurses working in a geographic caseload supported the community health profile data and knowledge of community needs and community capacity. Capturing bottom-up health information such as this provides evidence to direct primary care services, skill mix, practice and professional development. Moving from caseload manager to a team based approach risks losing this local tacit knowledge and generalist expertise.\textsuperscript{60}

Preparing, undertaking and reporting caseload analysis outcomes requires significant time but nurses appreciated the cost benefit ratio of using this process in their day to day practice. Benefits for the line manager facilitating the caseload analysis process included comments on relationship building with nurses for whom she is accountable and equitable resourcing of the service; ‘It builds on a good and open working relationship with the nurse’ and ‘I am now in a position to advocate for services with confidence’.

One of the building blocks of the PHIT framework is the geographic street index incorporating electoral divisions and caseload codes to promote equitable caseload assignment, management and analysis effective and to facilitate effective patient discharge and referral systems.

Developing a street index for a rural geography presents a challenge in that most patient addresses are based on townlands rather than streets. Contact with the All Ireland Research Laboratory (AIRO) responsible for developing the Eircode system of unique identification for residences confirms that compilation of a rural street index is possible using Eircode.

The collection of registration data in Trim PCN prompted two new PHIT developments; the PHIT Glossary of Terms and Definitions, and the auto-sum Excel Template for nursing treatments.

The lack of ‘protected’ time presented challenges for all nurses participating in the project. Time was needed to prepare for, travel to, and attend project meetings and to liaise with key stakeholders. Training on data input and summary, audit and review of care plans and


\textsuperscript{60} Hanafin S, O’Reilly D (2015) Evaluation of team-working model of Public Health Nursing Service delivery in the HSE Dublin Mid-Leinster Longford/Westmeath area, Key issues and national implications www.hse.ie
registers, data input and analysis, caseload analysis and drafting of project documents and reports all required time and input.

Many of the core documents developed under the Trim project could contribute to a LHO wide implementation through incorporation into training and train the trainers’ programmes. Set up of registers for data entry using excel sheets would be undertaken by a dedicated IT person, as in the original PHIT project, saving valuable nursing time.

Before consideration of the full PHIT implementation in County Meath key stages of change implementation such as those outlined by the Personal Health Record model will be required\textsuperscript{61}. Hanafin when discussing fidelity of implementation maintains that poor implementation produces poor outcomes irrespective of the quality of the work under implementation\textsuperscript{62}.

Consideration also needs to be given to paper-based versus electronic implementation\textsuperscript{63}. Electronic solutions will require roll out of Individual Health Identification and integration of systems under the ehealth strategy in the medium to longer term\textsuperscript{64}.

Whichever form of implementation is recommended it is clear from the outcomes of this project that practice development in relation to documentation practices and health information systems needs to commence in the short to medium term in County Meath.

\textsuperscript{61} Health Service Executive (2015) Personal Health Record – Professional Guidance Manual, HSE Dublin North East
\textsuperscript{63} McDonald A. (2103) digiPHIT Project Final Report to the Institute of Community Health Nursing www.ichn.ie
\textsuperscript{64} Health Service Executive (2013) eHealth Strategy for Ireland www.hse.ie
Conclusion

The project aim was achieved within the agreed timeframe, traditional PHN caseload registration and caseload analysis practices for Older Adults at Trim PCN were audited against a contemporary method.

The outcome of the audit provided evidence that contemporary public health nursing health information systems provide quality information and identify a range of PHN interventions at individual, family, community and systems levels.

The contemporary system supported case management and prioritisation, caseload management, manager-practitioner relationships, public health outcomes and service planning.

Developing a Street Index for County Meath in collaboration with the All Island Research Observatory using the new Eircode system will support population outcomes and equitable caseload assignment and provide for more effective referral systems in integrated care.

To support the management of change when implementing the PHIT framework in County Meath human resources, practice development and governance issues will need to be considered.

Making the work of the PHN service visible by using the PHIT framework to collect, analyse and report PHN service outcomes validly and reliably has allowed the ‘figures to speak’ in two PHN caseloads in Trim Primary Care Network.
Recommendations

1. Short Term Goals
   a. Revise care planning and caseload analysis documentation for County Meath incorporating evidence from this project
   b. Develop Care Plan guideline
   c. Provide Care Plan Training to all nurses
   d. Commission Street Index from AIRO
   e. Implement Practice Development / Health Information ADPHN Post

2. Medium to Longer Term Goals
   a. Meet with key stakeholders to discuss results
   b. Discuss feasibility of and funding for full implementation with due consideration to:
      i. Paper based vs. electronic implementation
      ii. IT, human and other resources
      iii. Change management
Appendix 1: Working Group Membership

Ms Siobhan Stafford ADPHN, Trim Primary Care Network
Ms Mary Gillen PHN, Trim Primary Care Network
Ms Yvonne Power PHN, Trim Primary Care Network
Ms Anne McDonald PHIT Project Leader, Local Health Office Dublin North City / Central, CHO9

---

65 Trim PCN Project Working Group (2015) Terms of Reference for Trim Primary Care Network, Nursing Data Project
Appendix 2: List of Project Reports and Presentations

1. Standard Operating Procedure
2. Terms of Reference Document
3. Patient Registration Guidance
4. Power Point Presentation to DPHN and Director of Nursing March 2015
5. Draft Street Index
6. Preliminary Baseline Data Analysis December 2014
7. Comparison of Summary Caseload Outcomes PHN Service County Meath and PHIT Framework
8. Baseline Data Analysis July 2015
9. Power Point presentation to PHNs / RGNs at Area Meeting 20/5/2015 ‘Trim Primary Care Network PHN Data Project’
10. Glossary of PHIT Terms and Definitions www.lenus.ie/hse/handle/10147/213010
11. Discussion on the Caseload Analysis process
## Appendix 3: Trim Electoral Area Electoral Divisions and Age Profile

<table>
<thead>
<tr>
<th>No</th>
<th>ED</th>
<th>Title</th>
<th>Population</th>
<th>0-12/12</th>
<th>0-5yrs</th>
<th>65yrs+</th>
<th>85yrs+</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>11069</td>
<td>Ardnamullan</td>
<td>842</td>
<td>9</td>
<td>83</td>
<td>84</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>11071</td>
<td>Ballyboggan</td>
<td>536</td>
<td>8</td>
<td>56</td>
<td>82</td>
<td>24</td>
</tr>
<tr>
<td>3</td>
<td>11072</td>
<td>Ballyconnell</td>
<td>714</td>
<td>12</td>
<td>53</td>
<td>74</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>11073</td>
<td>Castlejordan</td>
<td>471</td>
<td>9</td>
<td>34</td>
<td>51</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>11074</td>
<td>Castlerickard</td>
<td>1852</td>
<td>41</td>
<td>289</td>
<td>107</td>
<td>11</td>
</tr>
<tr>
<td>6</td>
<td>11082</td>
<td>Cill Bhride</td>
<td>450</td>
<td>7</td>
<td>39</td>
<td>50</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>11075</td>
<td>Cloghbrack</td>
<td>503</td>
<td>6</td>
<td>41</td>
<td>59</td>
<td>9</td>
</tr>
<tr>
<td>8</td>
<td>11076</td>
<td>Clonmacduff</td>
<td>468</td>
<td>5</td>
<td>42</td>
<td>52</td>
<td>3</td>
</tr>
<tr>
<td>9</td>
<td>11077</td>
<td>Gallow</td>
<td>909</td>
<td>13</td>
<td>80</td>
<td>91</td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td>11078</td>
<td>Galtrim</td>
<td>666</td>
<td>11</td>
<td>62</td>
<td>76</td>
<td>5</td>
</tr>
<tr>
<td>11</td>
<td>11080</td>
<td>Hill of Down</td>
<td>507</td>
<td>8</td>
<td>45</td>
<td>69</td>
<td>3</td>
</tr>
<tr>
<td>12</td>
<td>11081</td>
<td>Innfield</td>
<td>4006</td>
<td>117</td>
<td>564</td>
<td>226</td>
<td>20</td>
</tr>
<tr>
<td>13</td>
<td>11083</td>
<td>Kicooly</td>
<td>323</td>
<td>3</td>
<td>30</td>
<td>35</td>
<td>6</td>
</tr>
<tr>
<td>14</td>
<td>11084</td>
<td>Kildalky</td>
<td>1232</td>
<td>21</td>
<td>165</td>
<td>122</td>
<td>12</td>
</tr>
<tr>
<td>15</td>
<td>11085</td>
<td>Killaconnigan</td>
<td>2094</td>
<td>57</td>
<td>302</td>
<td>132</td>
<td>7</td>
</tr>
<tr>
<td>16</td>
<td>11086</td>
<td>Killyon</td>
<td>518</td>
<td>7</td>
<td>40</td>
<td>84</td>
<td>4</td>
</tr>
<tr>
<td>17</td>
<td>11087</td>
<td>Laracor</td>
<td>570</td>
<td>13</td>
<td>68</td>
<td>49</td>
<td>2</td>
</tr>
<tr>
<td>18</td>
<td>11088</td>
<td>Rahinstown</td>
<td>488</td>
<td>6</td>
<td>44</td>
<td>30</td>
<td>3</td>
</tr>
<tr>
<td>19</td>
<td>11089</td>
<td>Rathmoylon</td>
<td>1330</td>
<td>26</td>
<td>147</td>
<td>148</td>
<td>19</td>
</tr>
<tr>
<td>20</td>
<td>11091</td>
<td>Summerhill</td>
<td>1299</td>
<td>33</td>
<td>141</td>
<td>93</td>
<td>10</td>
</tr>
<tr>
<td>21</td>
<td>11092</td>
<td>Trim Rural</td>
<td>8005</td>
<td>156</td>
<td>840</td>
<td>759</td>
<td>128</td>
</tr>
<tr>
<td>22</td>
<td>11003</td>
<td>Trim Urban</td>
<td>1269</td>
<td>11</td>
<td>80</td>
<td>239</td>
<td>16</td>
</tr>
</tbody>
</table>

**Total Population** | **29,052** | **579** | **3,245** | **2,712** | **319**
## Appendix 4: Trim Primary Care Network Older Adult Population

<table>
<thead>
<tr>
<th>Health Centre</th>
<th>Electoral Divisions</th>
<th>Population</th>
<th>65-69 yrs</th>
<th>70-74 yrs</th>
<th>75-79 yrs</th>
<th>80-84 yrs</th>
<th>85+ yrs</th>
<th>Sub-Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athboy HC</td>
<td>Athboy</td>
<td>2531</td>
<td>104</td>
<td>69</td>
<td>46</td>
<td>37</td>
<td>49</td>
<td>305</td>
</tr>
<tr>
<td></td>
<td>Grennanstown</td>
<td>1201</td>
<td>31</td>
<td>22</td>
<td>25</td>
<td>9</td>
<td>13</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Rathmore</td>
<td>970</td>
<td>34</td>
<td>30</td>
<td>21</td>
<td>12</td>
<td>11</td>
<td>108</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>4702</strong></td>
<td><strong>169</strong></td>
<td><strong>121</strong></td>
<td><strong>92</strong></td>
<td><strong>58</strong></td>
<td><strong>73</strong></td>
<td><strong>513</strong></td>
</tr>
<tr>
<td>Ballivor HC</td>
<td>Cloghbrack</td>
<td>503</td>
<td>22</td>
<td>9</td>
<td>10</td>
<td>9</td>
<td>9</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Kildalkey</td>
<td>1232</td>
<td>37</td>
<td>46</td>
<td>16</td>
<td>12</td>
<td>12</td>
<td>123</td>
</tr>
<tr>
<td></td>
<td>Kilaconnigan</td>
<td>2094</td>
<td>56</td>
<td>38</td>
<td>21</td>
<td>10</td>
<td>7</td>
<td>132</td>
</tr>
<tr>
<td></td>
<td>Hill of Down</td>
<td>507</td>
<td>17</td>
<td>24</td>
<td>13</td>
<td>12</td>
<td>3</td>
<td>69</td>
</tr>
<tr>
<td></td>
<td>Castlejordan</td>
<td>471</td>
<td>17</td>
<td>11</td>
<td>16</td>
<td>3</td>
<td>4</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>Ballyboggan</td>
<td>536</td>
<td>17</td>
<td>10</td>
<td>17</td>
<td>14</td>
<td>24</td>
<td>82</td>
</tr>
<tr>
<td></td>
<td>Ardanmullen</td>
<td>842</td>
<td>21</td>
<td>23</td>
<td>20</td>
<td>11</td>
<td>9</td>
<td>84</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>6185</strong></td>
<td><strong>187</strong></td>
<td><strong>161</strong></td>
<td><strong>113</strong></td>
<td><strong>71</strong></td>
<td><strong>68</strong></td>
<td><strong>600</strong></td>
</tr>
<tr>
<td>Summerhill HC</td>
<td>Robinstown</td>
<td>488</td>
<td>10</td>
<td>5</td>
<td>5</td>
<td>7</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Rathmoylon</td>
<td>1330</td>
<td>59</td>
<td>26</td>
<td>30</td>
<td>14</td>
<td>19</td>
<td>148</td>
</tr>
<tr>
<td></td>
<td>Gallow</td>
<td>909</td>
<td>40</td>
<td>21</td>
<td>12</td>
<td>9</td>
<td>9</td>
<td>91</td>
</tr>
<tr>
<td></td>
<td>Kilmore</td>
<td>1507</td>
<td>66</td>
<td>31</td>
<td>24</td>
<td>18</td>
<td>15</td>
<td>154</td>
</tr>
<tr>
<td></td>
<td>Summerhill</td>
<td>1299</td>
<td>43</td>
<td>16</td>
<td>14</td>
<td>10</td>
<td>10</td>
<td>93</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>5533</strong></td>
<td><strong>218</strong></td>
<td><strong>99</strong></td>
<td><strong>85</strong></td>
<td><strong>58</strong></td>
<td><strong>56</strong></td>
<td><strong>516</strong></td>
</tr>
<tr>
<td>Enfield</td>
<td>Enfield</td>
<td>4006</td>
<td>80</td>
<td>54</td>
<td>48</td>
<td>24</td>
<td>20</td>
<td>226</td>
</tr>
<tr>
<td></td>
<td>Castlerickard</td>
<td>1852</td>
<td>31</td>
<td>30</td>
<td>20</td>
<td>15</td>
<td>11</td>
<td>107</td>
</tr>
<tr>
<td></td>
<td>Kilcooly</td>
<td>518</td>
<td>28</td>
<td>24</td>
<td>13</td>
<td>15</td>
<td>4</td>
<td>84</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>6376</strong></td>
<td><strong>139</strong></td>
<td><strong>108</strong></td>
<td><strong>81</strong></td>
<td><strong>54</strong></td>
<td><strong>35</strong></td>
<td><strong>417</strong></td>
</tr>
<tr>
<td>Trim P.C.C</td>
<td>Trim Urban</td>
<td>1269</td>
<td>73</td>
<td>56</td>
<td>57</td>
<td>37</td>
<td>16</td>
<td>239</td>
</tr>
<tr>
<td></td>
<td>Trim Rural</td>
<td>8005</td>
<td>236</td>
<td>156</td>
<td>133</td>
<td>106</td>
<td>128</td>
<td>759</td>
</tr>
<tr>
<td></td>
<td>Kilbride</td>
<td>450</td>
<td>18</td>
<td>12</td>
<td>4</td>
<td>10</td>
<td>6</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Clonmacduff</td>
<td>468</td>
<td>16</td>
<td>13</td>
<td>12</td>
<td>8</td>
<td>3</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>Kilcooly</td>
<td>323</td>
<td>11</td>
<td>8</td>
<td>9</td>
<td>1</td>
<td>6</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Galtrim</td>
<td>666</td>
<td>21</td>
<td>15</td>
<td>18</td>
<td>17</td>
<td>5</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td>Ballyconnell</td>
<td>714</td>
<td>29</td>
<td>16</td>
<td>13</td>
<td>7</td>
<td>9</td>
<td>74</td>
</tr>
<tr>
<td></td>
<td>Laracor</td>
<td>570</td>
<td>18</td>
<td>13</td>
<td>9</td>
<td>7</td>
<td>2</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>12465</strong></td>
<td><strong>422</strong></td>
<td><strong>289</strong></td>
<td><strong>255</strong></td>
<td><strong>193</strong></td>
<td><strong>175</strong></td>
<td><strong>1334</strong></td>
</tr>
<tr>
<td>Trim PCN Total</td>
<td><strong>Total</strong></td>
<td><strong>35,261</strong></td>
<td><strong>1135</strong></td>
<td><strong>778</strong></td>
<td><strong>626</strong></td>
<td><strong>434</strong></td>
<td><strong>407</strong></td>
<td><strong>3380</strong></td>
</tr>
</tbody>
</table>