



The Irish Longitudinal  
Study on Ageing

# TOPIC REPORT

## Demographic and health profile of older adults utilising public health nursing services in Ireland: Findings from The Irish Longitudinal Study on Ageing (TILDA)

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## KEY FINDINGS

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- 6.6% of adults aged 50 years and older utilised public health nursing (PHN) services in the year prior to the first wave of the TILDA study, equivalent to 79,173 in the population
- A third (33.7%) of those aged 85 years and older utilised PHN services
- Almost a quarter (24.3%) of those who self-rate their health as poor utilised PHN services
- Over a third (38.5%) of those with both an activity of daily living (ADL) difficulty and instrumental activity of daily living (IADL) difficulty utilised PHN services
- Satisfaction with the PHN service was high (90%), with dissatisfaction mostly related to insufficient service provision
- Substantial change in PHN service utilisation was observed between the first and second wave of TILDA due to high mortality in PHN service users, discontinuation of PHN service utilisation and uptake of PHN services by new users

## INTRODUCTION

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The Irish Longitudinal Study on Ageing (TILDA) is a longitudinal prospective study of adults aged 50 years and older living in the community in Ireland. Data were collected from 8,175 respondents in the first wave (2009-2011) and this group were followed up for interview again in the second wave (2012-2013). Face to face computer assisted interviews were carried out in the respondent's home. Statistical weights were applied to the data to adjust for non-response to the survey. Detailed information on the methodology is provided elsewhere [1].

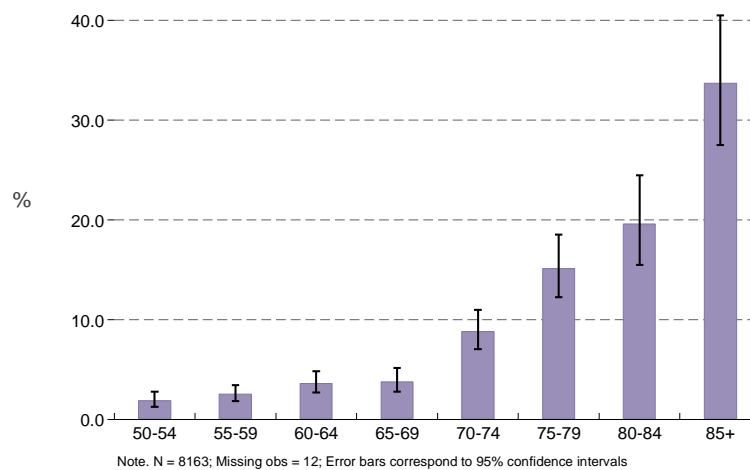
Public health nursing (PHN) services in Ireland incorporate the care provided by public health nurses and registered general nurses to individuals living in the community; the term "PHN service" will be used throughout this report. The PHN service is free at the point of access and available in all communities throughout Ireland. The service has responsibility for nursing services to children and families, school health and older persons. In addition to these core activities it has operational and strategic responsibility for the nursing element of other services including infection control, palliative care, home care assistance, home care packages, preschool services and traveller health services in the community [2].

This brief report will focus on utilisation of the PHN service by older adults (aged 50 years and older) in Ireland. The report examines the demographic and health profile of those utilising PHN services in the first wave of TILDA, their satisfaction with the service and the changing profile of service users between the first and second wave of the study.

## PHN SERVICE UTILISATION ACCORDING TO AGE, SEX AND COHABITATION STATUS

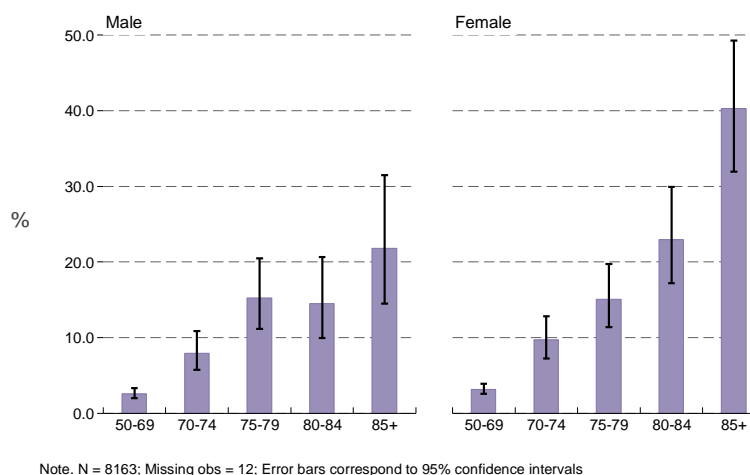
At wave 1, 6.6% (n=482) of adults aged 50 years and older had utilised the PHN service in the previous 12 months. This is equivalent to 79,173 individuals in the population. Large variation exists in utilisation patterns by age, with limited utilisation observed in the age range 50-69 years and higher utilisation patterns after the age of 70 years (Figure 1). The highest utilisation was found in those aged 85 years and older, where a third (33.7%) had used the PHN nursing service in the previous year.

Figure 1: PHN service utilisation by five year age groups in community-dwelling adults aged 50 years and older in Ireland (TILDA, wave 1)



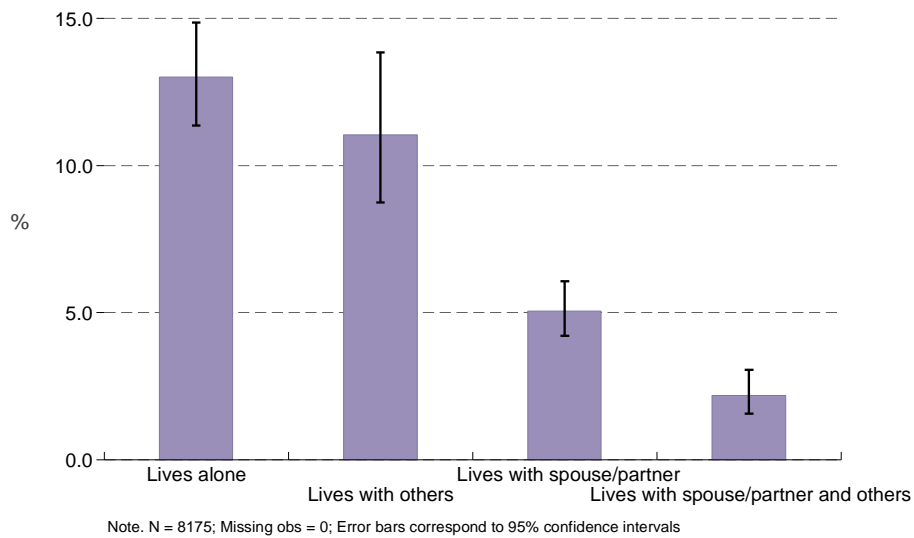
A higher proportion of women used the service compared to men: 7.8% vs 5.1%. This significant difference is most striking in the oldest age group where 40.2% of women aged 85 years and older had used the PHN nursing service in the previous year compared to 21.8% of men (Figure 2).

Figure 2: PHN service utilisation by age and sex in community-dwelling adults aged 50 years and older in Ireland (TILDA, wave 1)



PHN service utilisation was examined according to the living arrangements of the respondents. Living arrangement was categorised as living alone, living with others (does not include a spouse/partner), living with a spouse/partner only and living with a spouse/partner and others. The highest level of utilisation was found in those who lived alone (13.0%) and the lowest utilisation was in those who lived in a household with their spouse/partner and other people (2.1%) (Figure 3).

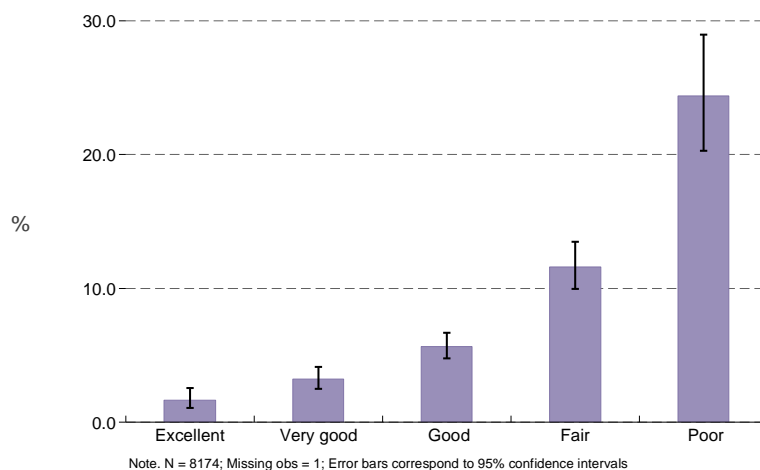
Figure 3: PHN service utilisation by living arrangement in community-dwelling adults aged 50 years and older in Ireland (TILDA, wave 1)



## SELF-REPORTED HEALTH STATUS

Respondents were asked to rate their health as excellent, very good, good, fair or poor. Only 1.6% of those who self-rated their health as “excellent” had used the PHN service in the previous year compared to 24.3% of those who rated their health as “poor” (Figure 4).

Figure 4: PHN service utilisation by self-reported health status in community-dwelling adults aged 50 years and older in Ireland (TILDA, wave 1)



## GEOGRAPHICAL LOCATION

PHN service utilisation was examined according to urban/rural location and Community Healthcare Organisation (CHO).

Respondents were allocated into one of three urban/rural categories (Dublin city or county, another town or city, a rural area). No significant difference was found in PHN service utilisation according to urban/rural location.

Community healthcare services are currently administered nationally through nine CHOs. This new administrative structure is used in this report to present utilisation data from wave 1 (Table 1). Although no significant differences were found in the proportion of adults aged 50 years and older utilising the PHN service according to CHO, large variation exists in the estimated number of individuals using the service due to the different age profiles of the populations in the different CHOs.

**Table 1: Estimated proportion and number in the population aged 50 years and older utilising the PHN service according to Community Healthcare Organisation (TILDA, wave 1)**

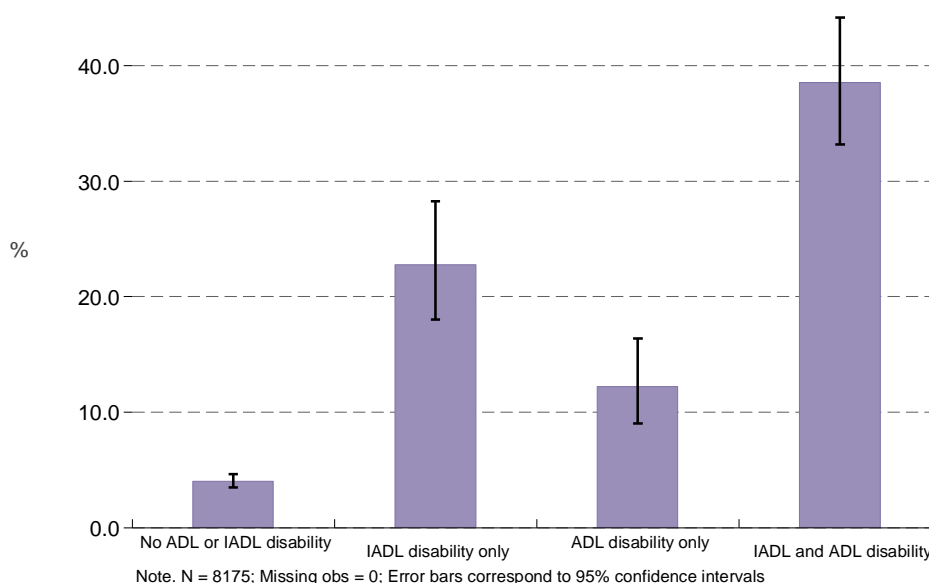
| Community Healthcare Organisation |   | Estimated proportion utilising PHN service |                | Estimated number utilising PHN service |                      |
|-----------------------------------|---|--|----------------|--|----------------------|
|                                   |   | %  | 95% CI         | N                                      | 95% CI               |
| Area 1                            | Donegal, Sligo/Leitrim/West Cavan and Cavan/Monaghan                        | 7.9  | 5.1-10.7       | 9,843                                  | 6,115-13,570         |
| Area 2                            | Galway, Roscommon and Mayo  | 8.0  | 5.6-10.4       | 13,585                                 | 9,144-18,026         |
| Area 3                            | Clare, Limerick, and North Tipperary/East Limerick                          | 5.5  | 3.4-7.5        | 6,136                                  | 3,711-8,561          |
| Area 4                            | Kerry, North Cork, North Lee, South Lee, and West Cork                      | 5.9  | 4.6-7.2        | 11,342                                 | 8,649-14,035         |
| Area 5                            | South Tipperary, Carlow/Kilkenny, Waterford and Wexford                     | 7.1  | 5.3-9.0        | 11,305                                 | 8,118-14,492         |
| Area 6                            | Wicklow, Dun Laoghaire and Dublin East                                      | 4.3  | 2.3-6.4        | 3,831                                  | 2,040-5,622          |
| Area 7                            | Kildare/West Wicklow, Dublin West, Dublin South City, and Dublin South West | 4.9  | 3.2-6.7        | 6,257                                  | 3,997-8,518          |
| Area 8                            | Laois/Offaly, Longford/Westmeath, Louth and Meath                           | 7.4  | 5.1-9.8        | 9,298                                  | 6,268-12,328         |
| Area 9                            | Dublin North, Dublin North Central and Dublin North West                    | 6.8  | 4.7-8.9        | 7,572                                  | 4,880-10,263         |
| <b>Total</b>                      |   | <b>6.6</b>                                 | <b>5.9-7.2</b> | <b>79,173</b>                          | <b>70,384-87,962</b> |

## ADL AND IADL DISABILITY STATUS

Respondents were asked if they had difficulties with any activity of daily living (ADL) or any instrumental activity of daily living (IADL). They were asked to exclude any difficulties they expected to last less than three months. The ADL index assesses difficulty in performing activities related to personal care including dressing, walking across a room, bathing, eating, getting into or out of bed and using the toilet [3]. The IADL scale assesses difficulty in relation to carrying out household activity [4]. The difficulties assessed included activities related to preparing a meal, doing household chores, shopping for groceries, making telephone calls, taking medications and managing money. Four exclusive categories of ADL and IADL disability have been described in this cohort [5], these include those with no disability; an IADL difficulty only; an ADL difficulty only; and finally those with both an ADL and IADL difficulty.

Utilisation of the PHN service was highest in those with both an ADL and IADL disability (38.5%) and lowest in those with no ADL or IADL disability (4.0%) (Figure 5).

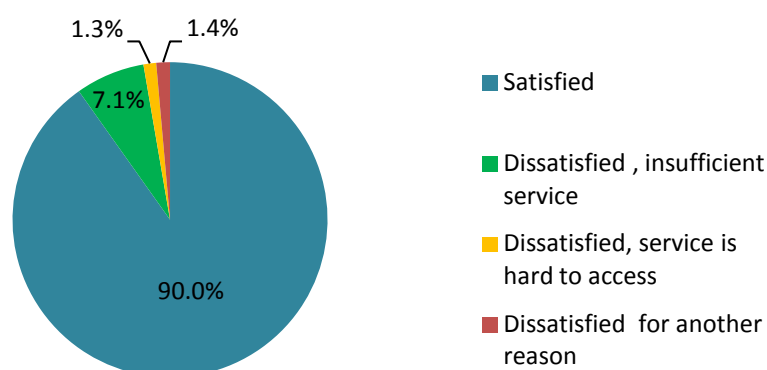
Figure 5: PHN service utilisation by ADL and IADL disability status in community-dwelling adults aged 50+ years in Ireland (TILDA, wave 1)



## SATISFACTION WITH THE PHN SERVICE

Respondents who had utilised the PHN service in the previous year were asked to indicate their level of satisfaction with the service (Figure 6). The vast majority (90.0%) were satisfied with the service they received. A further 7.1% indicated that they were dissatisfied because the service was not supplied frequently enough.

Figure 6: Satisfaction with the PHN service (TILDA, wave 1)



## PHN SERVICE USE ACROSS A TWO YEAR PERIOD FROM WAVE 1 TO WAVE 2

Of the 482 individuals utilising the PHN service in the first wave of TILDA, 74.7% (n=360) took part in the second wave of TILDA two years later (2012-2013), 10.8% (n=52) died in the inter wave period, 1.4% (n=7) were lost to follow-up or moved outside of Ireland and the remaining 13.1% (n=63) either refused to take part in the second wave interview or withdrew from the study. The mortality rate among PHN service users in the inter wave period is notable given that 1.9% (n=153) of non-PHN service users died in the inter wave period.

Transitions into and out of the PHN service were examined in all respondents who took part in both wave 1 and wave 2 (n=6,994) (Table 2). In those who were not using the service at wave 1 (n=6,634), 96.1% (n=6,381) remained non users at wave 2 and 3.8% (n=253) identified themselves as new service users at wave 2. Amongst those that had used the PHN service at wave 1 (n=360), 64.4% (n=232) discontinued use of the PHN nursing service in the year prior to wave 2 and 35.5% (n=128) were persistent users of the service across both waves of the study.

Table 2: Changes in PHN service utilisation between wave 1 and wave 2 of TILDA

|                                   | Not utilising PHN service (wave 2) | Utilising PHN service (wave 2) | Number in sample |
|-----------------------------------|------------------------------------|--------------------------------|------------------|
|                                   | n (%)                              | n (%)                          | n                |
| Not utilising PHN service (wave1) | 6,381 (96.1)                       | 253 (3.8)                      | 6,634            |
| Utilising PHN service (wave1)     | 232 (64.4)                         | 128 (35.5)                     | 360              |
| Number in sample                  | 6,613                              | 381                            | 6,994            |



The age, self-rated health and disability profile of service user groups identified in Table 2 were examined. Persistent PHN service users were older, had worse self-rated health and higher levels of ADL and IADL disability compared to all other groups (Table 3). New PHN service users were older and had worse self-rated health and disability profiles compared to those who discontinued service use between the two waves.

**Table 3: Age, self-rated health and disability profile of PHN service users at wave 2 by service use category between wave 1 and wave 2 of TILDA**

|                                 | Non PHN service user<br>n=6,381 | Discontinued PHN service use between w1 and w2<br>n=232 | New PHN service user between w1 and w2<br>n=253 | Persistent PHN service user between w1 and w2<br>n=128 |
|---------------------------------|---------------------------------|---|---|--|
| Age in years (mean)             | 64.5                            | 72.9  | 75.3  | 78.0   |
| Fair-poor self-rated health (%) | 16.0                            | 42.4  | 46.1  | 51.3   |
| ADL disability (%)              | 4.1                             | 21.5  | 31.6  | 42.9   |
| IADL disability (%)             | 5.2                             | 28.8  | 40.7  | 63.2   |

ADL: Activity of Daily Living  
IADL : Instrumental Activity of Daily Living

## SUMMARY

These findings have implications for policymakers and practitioners in the context of an ageing population. The high utilisation of PHN services by the oldest old is a key finding given the absolute increase in the numbers of older adults in this age category in the last Census of Ireland and the expected increase in this age category in the future. The PHN service appears to be responding to need on the basis of ADL and IADL disability and satisfaction with this service is high. The picture painted here of the changes in service utilisation across a two year period is one of a dynamic PHN service which responds to changing levels of need in the older population. The high mortality rate in service users points to a service with an important role in end of life care for individuals and their families in the community.

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Researchers interested in using TILDA data may access the data for free from the following sites:

- Irish Social Science Data Archive (ISSDA) at University College Dublin  
<http://www.ucd.ie/issda/data/tilda/>
- Interuniversity Consortium for Political and Social Research (ICPSR) at the University of Michigan  
<http://www.icpsr.umich.edu/icpsrweb/ICPSR/studies/34315>