

## **New Report on Medication Use and Cost savings in the over 50s in Ireland**

Report available at:

<http://www.tcd.ie/tilda/publications/reports/>

**Dublin, December 13<sup>th</sup>, 2012** – Researchers at The Irish Longitudinal Study on Ageing (TILDA) at Trinity College Dublin have published a new report on multiple medication use in adults aged over 50 in Ireland, examining rates of polypharmacy and opportunities for cost savings using generic and reference prices.

The report was prepared using data from the first wave of The Irish Longitudinal Study on Ageing (TILDA). TILDA is a large-scale study of 8,175 people aged 50 and over and living in Ireland. Participants were first interviewed in 2010.

Polypharmacy, the regular use of five or more medicines, is very common in older people in Ireland (one in three aged over 65) and becomes more common with advancing years. Polypharmacy is important because it can put people, particularly older people, at risk of serious complications – such as falls, fractures and complications from drug interactions (confusion, delirium, strokes). The findings of this report highlight the need for frequent medications review in older adults. TILDA participants were all living in the community at the time of the report, it may be that polypharmacy is more common in older people in nursing home settings. The report's authors were Kathryn Richardson, Patrick Moore, Jure Peklar, Kathleen Bennett and Rose Anne Kenny (all of Trinity College Dublin) and Rose Galvin (Royal College Surgeons in Ireland).

High levels of concomitant food supplement (also known as dietary supplement) use were also reported in those with polypharmacy and were more common in women (44% in women, 27% in men). Food supplements can interact with other medicines and these interactions should be discussed by pharmacists and general practitioners.

Prescribed medications can be made cheaper by prescribing generics (copies of the original medicine no longer protected by patent) or by using reference pricing (setting one price for groups of similar medicines).

Over €0.3 billion is spent each year on medicines for adults on polypharmacy over 50 years. Only one in five prescribed medicines are generic, which compares poorly with other cultures such as the US and UK. Furthermore, generic prices of commonly used medicines in Ireland are several times more expensive than their UK counterparts. Current international guidelines recommend regular medication review and substitution for a cheaper medicine with the same therapeutic outcome where possible. One of the senior authors, Professor Kathleen Bennett, commented that “the Irish prices were substantially higher than UK counterparts, for example 2 of the 10 most commonly prescribed medicines were 6 times more expensive in Ireland.” Because only one in five medicines used by those reporting polypharmacy was a generic, in 2010, €30 million per year could have been saved by increasing the use of generic medicines (Irish generic pricing).

Based on 2010 prices, up to €152 million could have been saved annually using a system of reference pricing based on groups of similar drugs. For example, for commonly prescribed drugs such as statins for lowering cholesterol, the potential annual savings from increasing the use of generics would have been €1 million and from using reference pricing €40 million per year.

Commenting on the results, the Principal Investigator for TILDA, Professor Rose Anne Kenny said: “This report highlights the extent of the medication burden in adults in Ireland and where considerable cost

savings could be made. Polypharmacy is common and potentially puts the ageing population at risk of serious complications. Given that polypharmacy accounts for over half of the annual costs of prescribed medications in the entire population aged over 50 years, review of medications and generic substitution should offer opportunities for considerable savings”.

*For media queries contact:*

Dr Kathleen Bennett (on costs) 087 9752883  
Kathryn Richardson (on polypharmacy) 089 4327041

Note to editors:

The report is titled *Polypharmacy in adults over 50 in Ireland: Opportunities for cost saving and improved healthcare*. It can be downloaded from <http://www.tcd.ie/tilda/publications/reports/>

### **Key findings**

#### Executive summary

- Among community-dwelling people aged over 50 in Ireland, 69% report taking medications regularly. The median number of medications taken regularly in the over 50s is 2, in the over 65s is 3 and in the over 75s is 4.
- One in five of those over 50 years regularly take five or more medications (i.e. polypharmacy).
- Polypharmacy potentially puts the ageing population at greater risk of inappropriate prescribing, non-adherence and adverse drug reactions.
- Those reporting polypharmacy are more likely to be older, have attained a lower educational level, have greater morbidity, worse self-rated health and to have medical card eligibility.
- Although one in three people aged over 65 report polypharmacy, they are responsible for more than half of hospital outpatient and inpatient visits in this age group.
- Polypharmacy accounts for over half of the annual costs of prescribing to the entire population aged over 50 years.
- Medications used to treat cardiovascular conditions (mainly high blood pressure and heart disease) are the most common medications contributing to polypharmacy.
- Almost one half of women and a third of men reporting polypharmacy are taking food supplements regularly.
- The most common food supplements regularly taken are calcium carbonate (with or without vitamin D), Omega-3-triglycerides and Glucosamine.
- Currently one in five medicines used by those reporting polypharmacy is a generic, 15% being a branded generic and 6% a pure generic. Increasing the use of generic medicines could potentially save up to €29.5 million per year.
- In the older population reporting polypharmacy, using a system of reference pricing based on groups of similar drugs could potentially save up to €152.4 million per year.
- For some of the most commonly used drugs the potential annual savings from increasing the use of generics and reference pricing are respectively:
  - Proton pump inhibitors: €10.0 million and €17.8 million per year.
  - ACE inhibitors: €2.9 million and €4.0 million per year.

- Statins: €0.9 million and €39.9 million per year.
  - Bronchodilator combinations: up to €8.4 million per year.
- Irish prices for many of the generic medications are more expensive than English counterparts - the 10 most commonly prescribed medicines are on average 2.7 times more expensive, with 2 medicines being 6 times more expensive.

#### Recommendations

- Regular medication review for those taking five or more medications.
- Substitution for a cheaper medicine with the same therapeutic outcome where possible.
- Widespread implementation of an easily accessible system for all prescribers to enable comparison of pricing for all patients.

## Tables

Table 1. Prevalence of polypharmacy in Ireland by age and sex

Sex	Age		
	50-64 years	65-74 years	75+ years
Men	9%	26%	38%
Women	11%	26%	36%

Table 2. Savings for substitution at the pharmaceutical level (the 20 most costly therapeutic groups for individuals reporting polypharmacy)

Therapeutic group	Current annual cost €'000	Cheapest substitute annual cost <sup>a</sup> €'000	Maximum annual savings €'000	Maximum annual savings (% of current cost)
Lipid modifying agents	€62,465	€61,529	€936	2%
Drugs for obstructive airways diseases	€43,787	€41,684	€2,103	5%
Drugs for acid related disorders	€39,675	€29,455	€10,220	26%
Agents acting on the renin-angiotensin system	€27,079	€23,019	€4,060	15%
Anti-thrombotic drugs	€20,094	€14,985	€5,109	25%
Anti-diabetic drugs	€18,207	€18,015	€191	1%
Antiepileptics	€14,719	€13,400	€1,319	9%
Psychoanaleptics	€11,006	€10,644	€362	3%
Urologicals	€10,231	€8,980	€1,251	12%
Analgesics	€7,487	€6,159	€1,327	18%
Calcium channel blockers	€7,268	€6,702	€565	8%
Drugs for treatment of bone disease	€6,710	€6,710	€0	0%
Anti-inflammatory and anti-rheumatic products	€6,255	€6,087	€168	3%
Beta blocking agents	€6,077	€5,648	€430	7%
Psycholeptics	€5,035	€4,872	€163	3%
Cardiac therapy	€4,019	€3,568	€452	11%
Ophthalmologicals	€3,623	€3,161	€462	13%

Diuretics	€2,548	€2,367	€180	7%
Anti-hypertensives	€1,568	€1,451	€116	7%
Antibacterials for systematic use	€822	€712	€109	13%
<b>Total<sup>b</sup>:</b>	<b>€298,676</b>	<b>€269,151</b>	<b>€29,524</b>	<b>10%</b>

- a. Cheapest alternative drug with the same pharmaceutical.
- b. Total cost for the 20 most costly drugs for the population with polypharmacy ( $\geq 5$ )

TILDA is funded by the Department of Health, the Atlantic Philanthropies and Irish Life.

Prof Rose Anne Kenny is head of the Department of Medical Gerontology at Trinity College Dublin and is the lead Principal Investigator of TILDA. She can be contacted on 01 4284182.

Kathryn Richardson is a Ph.D. candidate in the Department of Medical Gerontology at Trinity College Dublin.

More information on TILDA can be found at [www.tilda.ie](http://www.tilda.ie).