ORAL HEALTH, HEALTH AND POLICY

IRISH SOCIETY FOR DISABILITY AND ORAL HEALTH
5TH MARCH 2015

CONTENT

- Academic Reference Group
- Oral Health Needs Assessment
- TILDA
- Health and Oral Health

ORAL HEALTH POLICY ACADEMIC REFERENCE GROUP (OHPARG)

- The main function of the group is to ascertain what information is available regarding the oral health needs of the Irish population and to determine the quality and relevance of existing data and requirement for further work.
- Focus on older adults - 65 years and older

ROLE AND REMIT

- The role of the Academic Group is to help **identify relevant evidence** to ensure **a framework for services that are underpinned by informed practice**.
- The aim of the Academic Group is to **identify and collate information to provide an evidence base** for the decisions taken when **developing oral health policy**.
- The Academic Group will consider any **new scientific evidence or information** relevant to the programme that might have a direct bearing on the future conduct of any of the work-packages and will provide advice on the **transferability of the research findings into recommendations for practice**

KEY TASKS

- To identify and determine the qualities and relevance of the existing literature on oral health needs assessment.
- Compare the current arrangements for oral health needs assessment in Ireland to the material identified above and suggest arrangements to address possible shortcomings. This will include the identification of any key data requirements and arrangements to ensure their subsequent collection.
- Propose models for delivery of oral health care working with the Practitioners Group and liaise with the Independent Panel to help ensure the qualities of the work.

MEMBERSHIP OF THE OHPARG

- Denis O'Mullane, (Chair) Emeritus Professor of Preventative Dentistry, UCC
- Brian O'Connell, (Vice Chair)Professor of Restorative Dentistry TCD
- Katheryn Neville, College Manager for Medicine and Health UCC
- Alison Dougall, Consultant in Special Care Dentistry TCD
- Margaret Barry, Health Promotion and Public Health NUIG
- David Madden, Associate Professor of Economics UCD
- Gerry McKenna QUB formerly UCC
- Jacinta McLoughlin, Public Dental Health TCD

ORAL HEALTH NEEDS ASSESSMENT FOR PEOPLE AGED ≥65 YEARS IN IRELAND

OLD/ELDERLY PEOPLE?

HOW DO WE DEFINE OLD/ELDERLY PEOPLE?

- Over 65 years, 75 years or 80 years?
- Is chronological age the best guide?
- Are health status, dependency or frailty more valuable measures?

DEFINITIONS

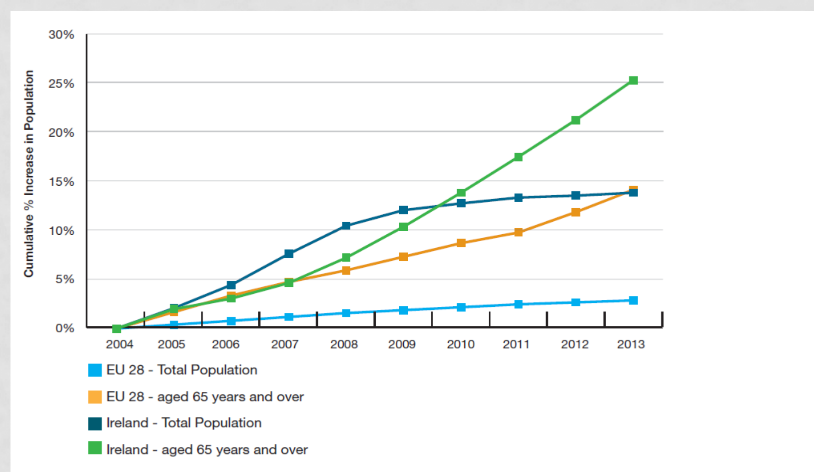
- "Darling, I love it when young men chat me up"
- Joanna Lumley, 66, discusses Botox, wrinkles, grey hair and what she'd get up to if she wasn't happily married

Sunday Times 10.02.2013

JOANNA LUMLEY ON AGEING

- "Almost every week now some journalist will say: *"Have you had Botox? Are you going to have a face lift?"* No, I haven't. No. I won't! Have I considered it? Yes."
- "I do sometimes think about life and being 66. I see the number and realise I am an OAP. **I remember reading it in the paper that *Joanna Lumley is an old-aged-pensioner* and it shocked me because I don't feel I'm 66 at all. I feel more like I'm 35. I have a bus pass so it must be true"**

CUMULATIVE PERCENTAGE INCREASE IN POPULATION



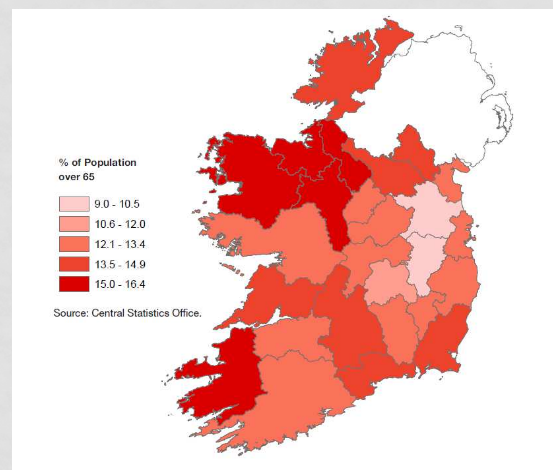
Health in Ireland, Key Trends 2014, Dept of Health

PROJECTED IRISH POPULATION 2026

Age group	Millions of people	% of older people in each age group
60-70	0.543	47.4%
70-80	0.384	33.5%
80+	0.219	19.1%
Total 60+	1.146	

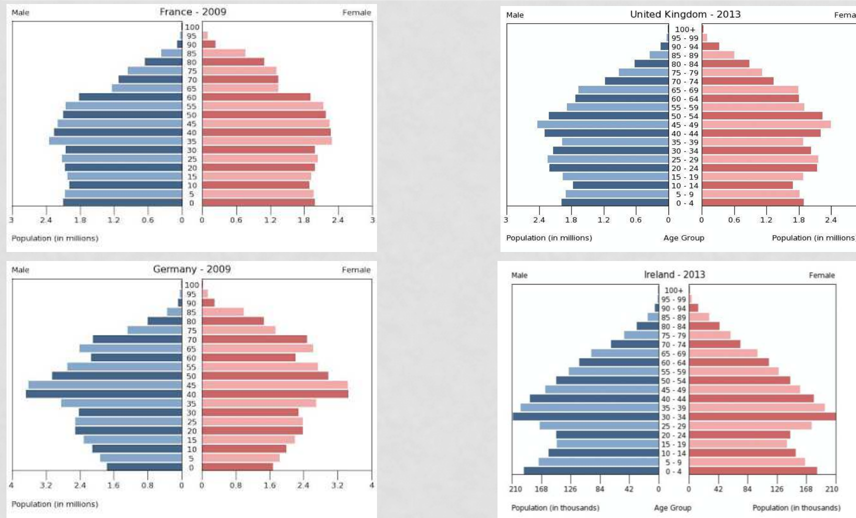
Madden 2014

PROPORTION OF THE POPULATION OVER 65 YEARS BY COUNTY

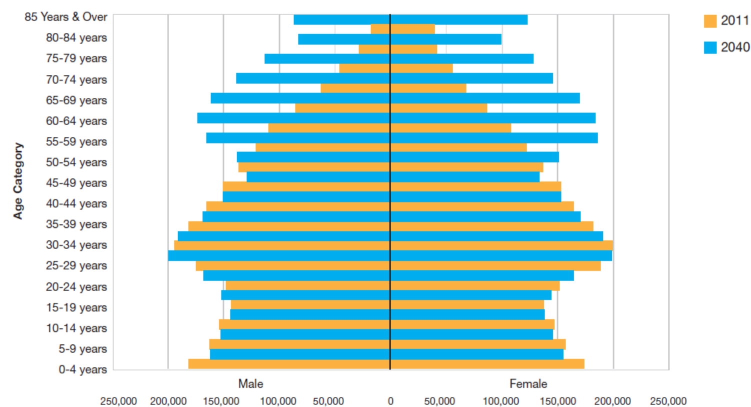


Health in Ireland, Key Trends 2014, Dept of Health

POPULATION PYRAMIDS

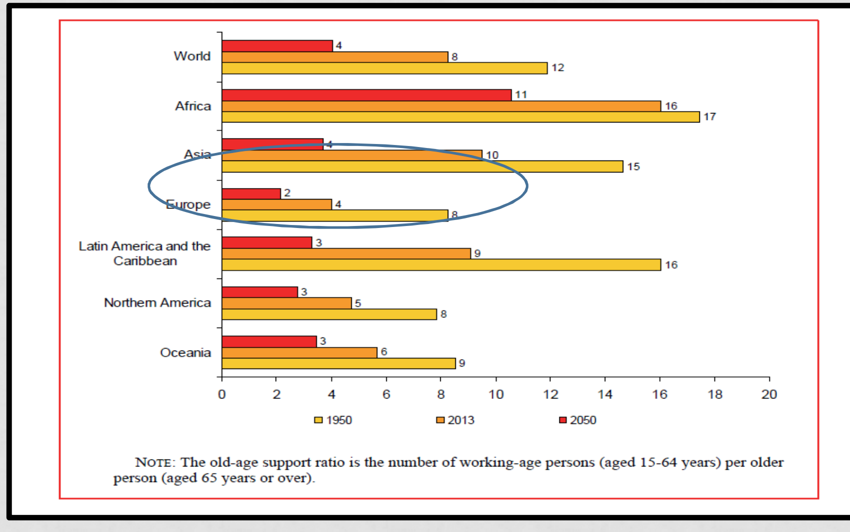


ACTUAL & PROJECTED POPULATION IN IRELAND 2011 AND 2040

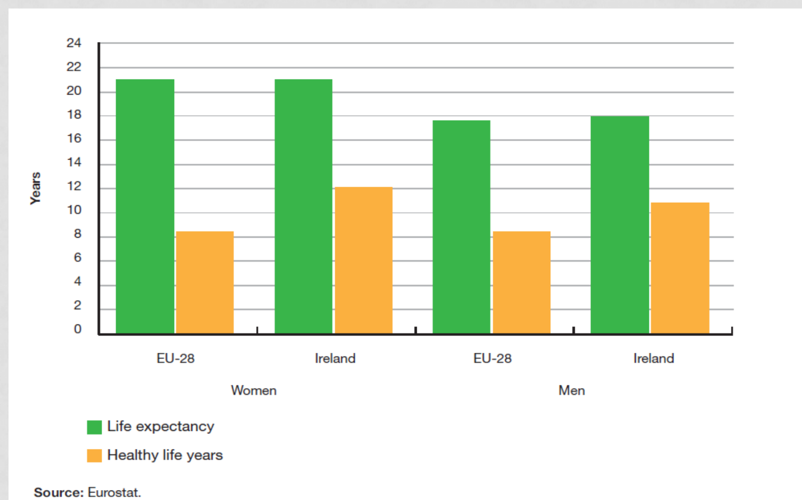


Health in Ireland, Key Trends 2014, Dept of Health

OLD AGE SUPPORT RATIO BY MAJOR AREA 1950, 2013 AND 2050

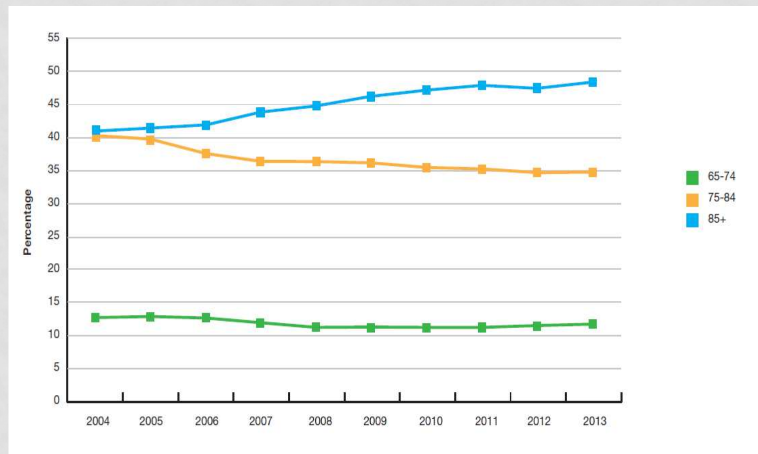


LIFE EXPECTANCY AND HEALTHY LIFE YEARS AT 65 YEARS IRELAND AND EU28 2012



Health in Ireland, Key Trends 2014, Dept of Health

LONG STAY CARE PERCENTAGE OF RESIDENTS BY AGE GROUP 2004-2013



Key Trends 2014 Department of Health, Dublin

TERMS OF REFERENCE FOR ONE SUB GROUP

- Determine the quality and relevance of existing data
- Identify potential gaps regarding oral health needs assessment
- Identify if more data are required
- To propose possible systems for ongoing collection of oral health data
- Develop a framework for future oral health needs assessment

DETERMINE THE QUALITY AND RELEVANCE OF EXISTING DATA

- It was agreed that the service data while relevant are of poor quality and provide, at best, a patchy view of oral health status of the community
- Current sources could be DTSS, DTBS, TILDA, private insurance schemes, dental hospitals, HIPE, army, prisons, private practice
- The Health Identifiers Act 2014 provides for the implementation of unique identifiers for patients, care providers and care centres.

IDENTIFY POTENTIAL GAPS REGARDING ORAL HEALTH NEEDS ASSESSMENT

- There are major gaps in the services data, public and private
- The DTSS and DTBS have only ever provided episodic care with a limited range of treatments
- Recording baseline data in these schemes was not a priority

POSSIBLE SYSTEMS FOR ONGOING COLLECTION OF ORAL HEALTH DATA

- A matrix of currently identified sources of service data needs to be developed that will demonstrate where there are population groups that would not be captured under the current services.
- It may be that some population groups that are not included in the matrix will need to be surveyed to complete the picture.
- Both qualitative and quantitative data should be collected. The qualitative data should include an measure of dependency to determine the need for domiciliary care
- Caries risk assessment data should also be collected

DEVELOPMENT OF ORAL HEALTH POLICY FOR OLDER PEOPLE IN IRELAND

- How do we measure the oral health needs of this age group?
- What aspects of oral health are important to older people?
- How do we best respond to these identified needs?
- What opportunities will arise in the reconfigured primary care services?

FACTORS THAT INFLUENCE ORAL HEALTH STATUS IN OLDER PEOPLE

- Cultural – attitude, knowledge and behaviours
  - Newer groups of older people will expect to retain high levels of oral health
- Independence, dependence or frailty
  - How useful are these measures?
- Accessibility, acceptability and affordability of care
  - Different models of care are required

HOW DO WE MEASURE THE ORAL HEALTH NEEDS OF THIS GROUP?

- Dentists measure DMFT, periodontal status, numbers of natural teeth, denture wearing but these do not necessarily relate to the individual's perception of their oral health needs
- These data are then analysed by age, gender, social class, educational level and other variables but does this analysis inform us about the oral health needs of a population?
- Even more so than with health, oral health is a social concept influenced by cultural ideals of body image, health and vitality

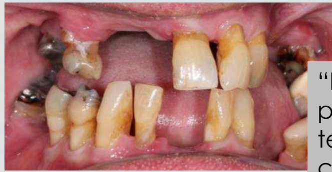
TRADITIONAL EPIDEMIOLOGY

- Provides insight into the trends in oral health
- Provides insight into the determinants of health and disease
- Indicates possible strategies for prevention

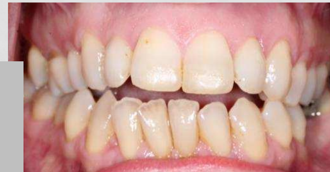
- May not be representative of the whole population
- Does not predict demand for treatment or uptake of services
- Is very expensive

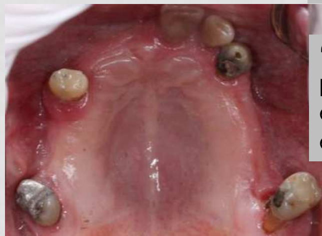
WHAT ASPECTS OF ORAL HEALTH ARE IMPORTANT TO OLDER PEOPLE?

ORAL HEALTH NEEDS…

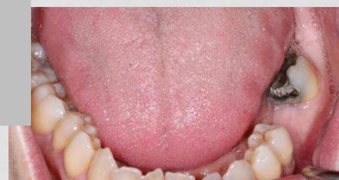


"I cannot eat properly—I have terrible difficulty chewing food"





"I have no problems, I can eat steaks and everything"

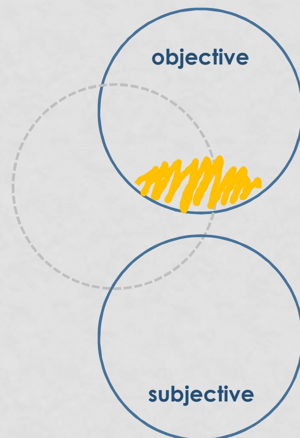


Courtesy of Prof Brian O'Connell

HOW DO WE DEFINE ORAL HEALTH NEEDS?

- Subjective assessments are useful in evaluating treatment outcomes and satisfaction
  - *(Awad 2000, McGrath 2003, Sanders 2009,Schmidt 2013)*
- Can subjective assessments be used to assess treatment needs?
  - Weak relationship between disease indicators and OHIP *(Locker 1994)*
  - May identify a subgroup of individuals whose clinical conditions impact significantly on daily life *(Locker 1996)*
  - Inconsistency between oral status and satisfaction*(Locker 2005)*

WHAT ARE ORAL HEALTH NEEDS AND HOW DO WE MEASURE THEM?



- Objective vs subjective assessments of need—two sides of the same coin?
- Does their relative importance change over time? (Steele 2004, Slade 2011)
- What are the end points of treatment?
- How should resources be allocated to each?

CRITICAL INDICATORS OF ORAL HEALTH?

- Free from pain and sepsis
- Comfortable social interaction, function and aesthetics when eating and speaking with friends and family
- Minimum functioning dentition – shortened dental arch
- Others?

DEVELOP A FRAMEWORK FOR FUTURE ORAL HEALTH NEEDS ASSESSMENT

- Minimum basic oral health data set
  - Hard tissue charting
  - Basic Periodontal Examination
  - Numbers of functional units
  - Denture wearing
- Single Assessment Tool for Ireland - frailty*
  - interRAI based, community health assessment (CHA)of care needs
- Public consultation

*McDermott-Scales et al 2013

HEALTH AND ORAL HEALTH

BI-DIRECTIONAL RELATIONSHIP BETWEEN HEALTH AND ORAL HEALTH

- Diabetes
- Coronary artery disease
- Aspiration pneumonia/ventilator associated pneumonia
- Dementia

DIABETES

- Diabetes is a known risk factor for gingivitis and periodontitis
- Patients with poorly controlled diabetes are at risk of severe periodontitis
- Periodontitis worsens in parallel with glycaemic control
- Evidence show a direct correlation between periodontal health and glycaemic control in diabetic patients
- The presence of periodontitis increases the risk of worsening of glycaemic control over time
- Periodontitis is associated with an increase in the risk for diabetes-related complications

Dr Barbara Janssens, Universitiet, Gent, Belgium

JOINT EFP/AAP WORKSHOP ON PERIODONTITIS AND SYSTEMIC DISEASE

"…randomized controlled trials (RCTs) consistently demonstrate that mechanical periodontal therapy associates with approximately a 0.4% reduction in HbA1c *at 3 months, a clinical impact equivalent to adding a second drug to a pharmacological regime for diabetes."*

(Chapple and Genco 2013)

CORONARY HEART DISEASE

- Prospective cohort studies RR:1.14 (1.07-1.21)
- (Bahekar A.A et al., The prevalence and incidence of coronary heart disease is significantly increased in periodontitis: a meta-analysis. *American Heart Journal, 2007)*
- The risk of developing cardiovascular disease was found to be significantly (34%) higher in subjects with periodontal disease compared to those without periodontal disease (pooled relative risk from the 7 cohort studies was 1.34 (95% CI [1.27; 1.42], $p < 0.0001$)
- (Blaizot A. et al., Periodontal diseases and cardiovascular events: meta-analysis of observational studies. *International Dental Journal*, 2009)

ORAL HEALTH AND ASPIRATIONAL PNEUMONIA

In nursing home residents:

- Second most common infection
- Most common reason for transfer to the hospital
- Leading cause of death from infection

ORAL HEALTH AND ASPIRATIONAL PNEUMONIA

- Two studies showed that improvement in oral health care diminished the risk of developing aspiration pneumonia and the risk of dying from aspiration pneumonia directly.

- The three studies remaining showed that adequate oral health care decreased the amount of potential respiratory pathogens and suggested a reduction in the risk of aspiration pneumonia by improving the swallowing reflex and cough reflex sensitivity.

Van der Maarel-Wierink, C D, et al. Oral health care and aspiration pneumonia in frail older people: a systematic literature review. *Gerodontology*, 2013

ORAL CARE AND DEMENTIA

- Dentate individuals who reported not brushing their teeth daily had a 22% to 65% greater risk of dementia than those who brushed three times daily.
  - Paganini-Hill, A. et al, Dentition, dental health habits, and dementia: the Leisure World Cohort Study. *Journal of the American Geriatrics Society*, 2012
- Persons aged 65 years and older without regular dental visits were more likely to have incident dementia [hazard ratio (HR) of 1.44 (1.04-2.01)]
  - Yamamoto, T. et al., Association between self-reported dental health status and onset of dementia: a 4-year prospective cohort study of older Japanese adults from the Aichi Gerontological Evaluation Study (AGES) Project. *Psychosomatic Medicine*, 2012

TOOTH LOSS AND DEMENTIA

- In a prospective study of community-dwelling elderly residents in Kwangju, South Korea, those with tooth loss and no dentures were most likely to develop dementia [OR=1.61 (1.02-2.49)]
  - Kim JM, et al. Dental health, nutritional status and recent-onset dementia in a Korean community population. Int J Geriatr Psychiatry, 2007.
- Association between edentulism or impaired chewing ability and cognitive impairment among older persons
  - Stewart R, et al., Dental health and cognitive impairment in an English national survey population. *J Am Geriatr Soc*. 2007
  - Lexomboon D, et al. Chewing ability and tooth loss: association with cognitive impairment in an elderly population study. J Am Geriatr Soc., 2012.

ORAL HEALTH CARE FOR FRAIL ELDERLY PEOPLE

- More will be community dwelling with support from carers
- Those in full time residential care will be the most frail
- Much higher percentage will be dentate, more challenging for the care staff
- Caries risk may increase with medications
- Periodontal disease risk will increase as oral hygiene practices deteriorate
- More limited types of treatment may be necessary and appropriate – ART, SDA, elective extractions?

THE IRISH LONGITUDINAL STUDY OF AGEING (TILDA)

- Community-dwelling adults aged 50 years and older
- Wave 1 started in 2009 - now in Wave 3
- Respondents complete a very long interview and a self-completed questionnaire, including all previous addresses
- They also attend for a comprehensive health assessment of: cardiac parameters, cognitive function, gait, bone density
- Samples of blood and hair are taken for analysis later
- Oral health status is being recorded in Wave 3

ORAL HEALTH ASSESSMENT IN TILDA

- Community Periodontal Index
- Coronal tooth wear
- Denture wearing status
- Need for prosthetic replacement of missing units
- Tooth contacts
- Caries/restorative status of crowns and roots
- Treatment need for crown and root condition

RESEARCH OBJECTIVES

- Water fluoridation and aspects of health
- Water fluoridation and oral health
- Oral health and general health
- Oral health status of community-dwelling adults aged 50 years and older
- Relate the findings to health and oral health policy

HEALTHY IRELAND POLICY (2013)

Vision

- "A Healthy Ireland, where everyone can enjoy physical and mental health and wellbeing to their full potential, where wellbeing is valued and supported at every level of society and is everyone's responsibility"

A HEALTHY POPULATION IS A MAJOR ASSET

- Health is a personal, social and economic good, and the health and wellbeing of individuals, and of the population as a whole, is Ireland's most valuable resource.
- A healthy population is essential to allow people to live their lives to their full potential, to create the right environment to sustain jobs, to help restore the economy and to look after the most vulnerable people in society.

WHERE DOES ORAL HEALTH FIT IN TO HEALTHY IRELAND?

- Should oral health be part of the Healthy Ireland initiative? If so how?
- What are the policy issues that can influence oral health?