UNSW
THE UNIVERSITY OF NEW SOUTH WALES

Centre for Primary Health Care and Equity

Never Stand Still | Medicine | Centre for Primary Health Care and Equity

Preliminary findings from the 45 and Up primary and community health cohort feasibility study

A/Prof Elizabeth Comino,

Acknowledgements: SLHD, SESLHD, CESPHN, Sax Institute

Aim of this presentation

- Provide some background,
- Present the results of the feasibility study, and
- Demonstrate the use of the data to explore questions relating to interface between primary and secondary care in CES through
  - GP attendance following discharge,
  - Access to integrated primary health care,
  - Factors associated with self-report of a 'fall in the last 12 months'

Background

- Ageing population – 15% aged >65 years,
  - Growth in numbers of older people - 18%PA,
- Improving access to timely integrated health care is key performance indicator of health services,
- Health service providers interested in
  - better predicting the health and care needs of their population, and
  - ensuring that patients with chronic care need receive timely well-integrated and co-ordinated care.

Opportunities

- Establishment of 45 and Up Study Cohort
  - 267,000 NSW residents
  - Access to unit record Medicare data
  - Linkage to NSW administrative records including:
    - Hospital records – APDC, EDDC
    - Births, deaths, and marriages
- Development of privacy preserving linkage techniques through
    - Recruitment of 45 and Up Cohort
    - Establishment of the Centre for Health Record Linkage – CHeReL
- Enhanced secure data laboratory facility
- Maturing of the cohort – 10 years of follow up

Opportunities

- Interest in this project from
  - South East Sydney Local Health District (SESLHD)
  - Sydney Local Health District (SLHD), and
  - Central and Eastern Sydney Primary Health Network (CESPHN).
- CPHCE currently hold linked data
  - Includes 45 and Up Study data linked to
    - Medicare (MBS, PBS),
    - NSW Hospital data (APDC, EDDC),
    - NSW Births, Deaths, and Marriages Register, and
    - Socioeconomic and Environmental Factors Study (SEEF).
  - These data enabled the feasibility studies

Value of cohort to CES

- Access to a community dwelling local population (n= 31,173 participants),
- Possibility, through linkage, of tracking health and service use over time,
- Inclusion of data on both primary and secondary care, and
- Capacity to link to additional local data collections.
- These will
  - Provide better understanding of the health, health needs, and health service use of residents,
  - Increase capacity to explore questions of local interest, and
  - Potentially evaluate changes in health care provision over time.

Strengths and limitations of 45 and Up for this purpose

- Access to a large community rather than clinical sample,
- Capacity to link to National and State data collections
  - Medicare – claims for medical/pharmaceutical care, and
  - Hospital data.
- Capacity to follow 45 and Up participants over time while protecting their privacy.
- Limitations:
  - Not designed to provide cross-sectional prevalence estimates;
  - Lack of clinical and diagnostic information.

Consultation to identify demonstration projects

- Recognition that this cohort could inform progress towards better integration of services,
- That this work could complement other sources of data within the LHDs, and
- Assist in evaluating the impact of new strategies and services to enhance care for people with chronic and complex health issues.

Demonstration project 1: GP attendance following discharge

- Questions:
- What is the time to GP attendance following discharge?
- What patient, system and health status factors are associated with timely GP Attendance?

- Data sources: 45 and Up, APDC, MBS

- Eligible subjects: admitted in 12 months following recruitment (n=7,235)

Demonstration project 1: GP attendance following discharge

- Results 1:
- Time to GP Follow up: mean 34.6 days
- Timely follow up (<14 days): 39.2%
- Predictors of follow up:

Age ≥ 75 Years:	49.0%	OR 1.49 (1.3-1.7)*
Education <year 10:	53.2%	OR 1.62 (1.3-2.0)*
Household income <$20,000:	52.8%	OR 2.34 (2.0-2.8)*
Number health conditions (≥3):	51.1%	OR 1.64 (1.4-2.0)*
Physical limitation (severe):	52.9%	OR 1.87 (1.6-2.2)*

Adjusted for gender, age, education, income

Demonstration project 1: GP attendance following discharge

- Results 2:
- Association with timely GP f-up:
- Specialist visit <2 weeks: 40.8% OR 1.20 (1.1-1.3)*
- Readmission (<4 weeks): 44.8% OR 1.21 (1.1-1.3)*
- Association with reason for admission

	n	% timely GP f-up
Endocrine and circulatory:	752	56.5%
Neoplasms:	847	35.0%
Respiratory:	225	62.7%
Musculoskeletal:	707	31.0%
Genitourinary:	530	35.9%
Other:	4,174	37.6%

Demonstration project 1: GP attendance following discharge

Conclusions:

- Low and inconsistent timely return to GP following discharge,
- While those with poor health are more likely to return there are opportunities for improvement, and
- Challenges some of assumptions around discharge processes.

- Further research
  - Needed to explore these associations

Demonstration project 2: Access to integrated primary health care

- Question: What is the uptake of GP practice incentives to support integrated health care?
- Data sources: 45 and Up, APDC, MBS
- Number of participants: 26,429
- Measures of integration:
  - Preparation of GPMP: 16.2%
  - Review of GPMP: 6.3%
  - Continuity of care: 36.1%
  - Multidisciplinary care: 7.3%

Demonstration project 2: access to integrated health care

- Factors associated with access to measures of integrated care:
  - Older age
  - Overseas birth
  - Education less that year 10
  - Low household income
  - Number of health conditions
  - Poor health
  - Frailty

Demonstration project 2: access to integrated health care

- Association of measures of integrated care and hospitalisation:

	OR (95%CI)*
Continuity of care:	0.78 (0.84-0.74)
GPMP preparation:	0.80 (0.74-0.86)
GPMP review:	0.93 (0.83-1.04)
M/D care:	0.78 (0.70-0.86)

*adjusted for age, gender, country of birth, education, household income, frailty, need help with daily living, number of health conditions, SF-36 and K-10.

Demonstration project 2: access to integrated health care

- There are positive benefits for patients through implementation of proactive care,
- GPs are able to identify patients at risk of poor outcomes and are implementing care planning and multidisciplinary care, and
- There are opportunities to extend integration through
  - Improving uptake of care planning through targeting 'at risk' people, and
  - Using discharge planning to ensure timely return to general practice following admission and encourage implementation of care planning.

Demonstration project 3:
factors associated with a 'fall in the last 12 months'

- Project aim:
  - To describe the self-reported rates of a fall in the last 12 months,
  - To identify risk factors for falling, and
  - To describe the association with health service use.

- Measure of falling: *'During the last 12 months how many time have you fallen to the floor or ground?'*

- Data sources: 45 and Up, APDC, MBS
- Number of participants: 31,115

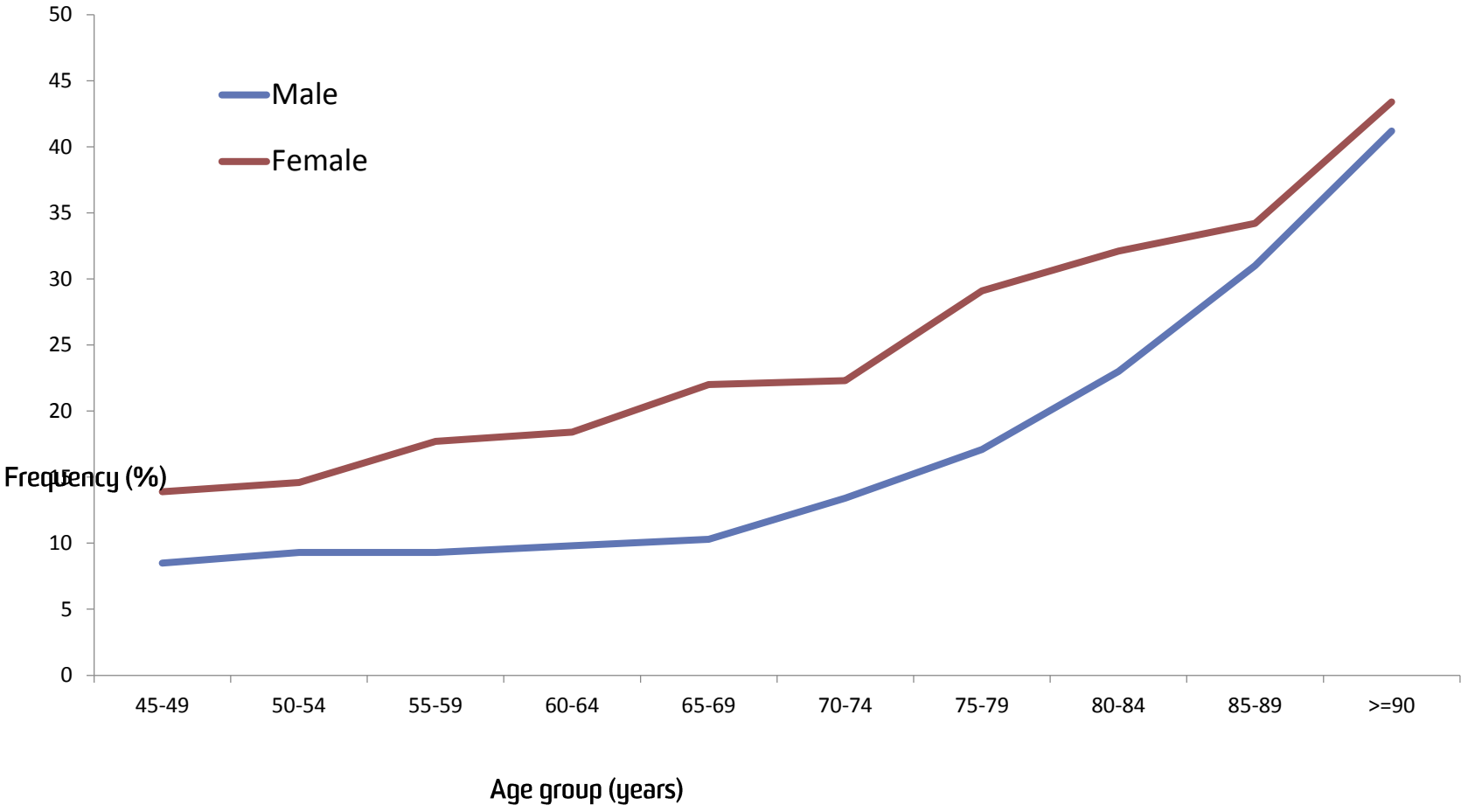
Demonstration project 3:
factors associated with a 'fall in the last 12 months'

- Results:
  - Frequency of reported fall (16.7%)

	n	%
1 fall:	2,474	8.0
2 falls:	1,409	4.5
3 or more falls	1,296	4.2

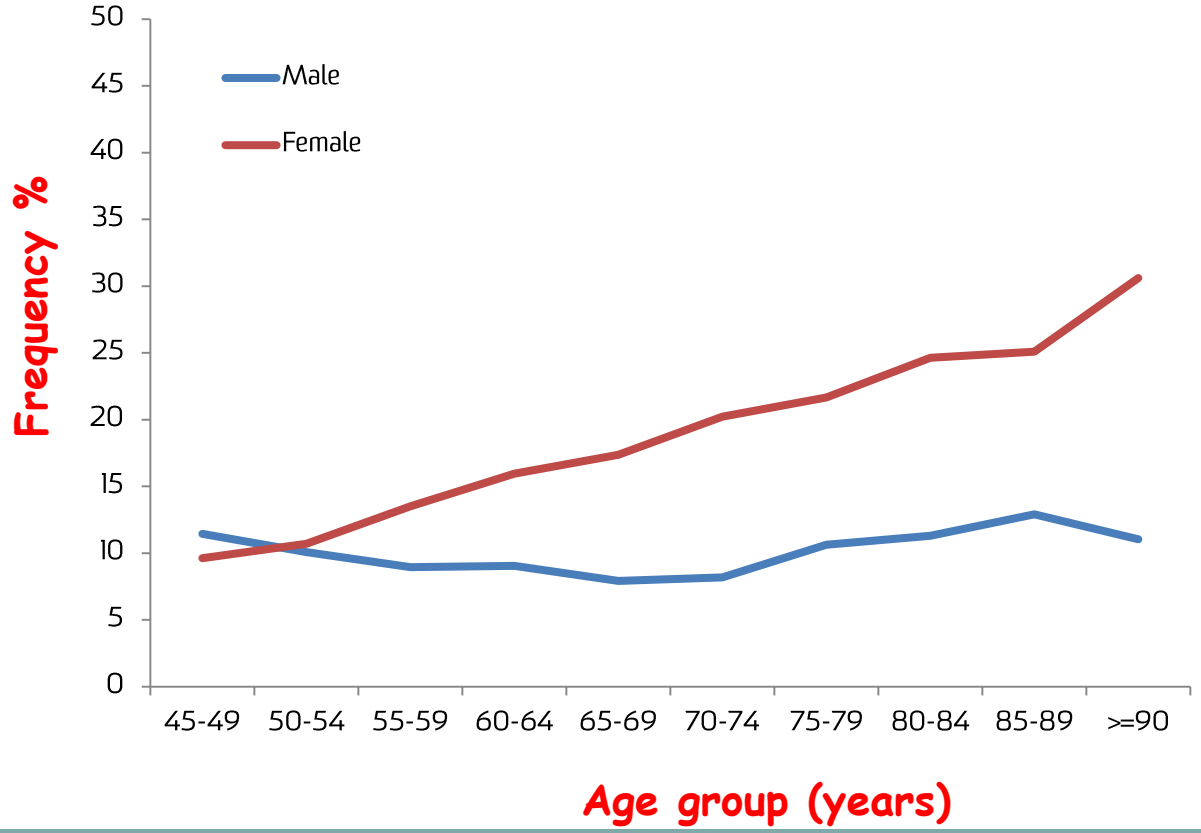
  - Frequency of falls increased with
    - Age
    - Poor health status
    - Need for help with daily activities
    - Physical functioning and psychological health

Frequency of falls by age group



Demonstration project 3:
factors associated with a 'fall in the last 12 months'

- Frequency of reported fracture in the last 5 years: 12.8%



Demonstration project 3:
factors associated with a 'fall in the last 12 months'

- Falls are associated with increased health service use

Number of GP consultations:	%	OR(95%CI)
0	14.4	1
1-4	12.6	0.94 (0.85-1.03)
5-9	16.5	1.09 (1.00-1.38)
10+	24.0	1.42 (1.30-1.54)
Continuity of GP Care		
No	19.8	1
Yes	15.4	1.06 (0.99-1.14)
Hospital admission		
No	15.4	1
Yes	21.1	1.29 (1.20-1.38)
Preparation of GPMP		
No	15.7	1
Yes	22.5	1.22 (1.12-1.22)

Demonstration project 3:
factors associated with a 'fall in the last 12 months'

- Falls are a significant issue for older people and risk increases with age,
- These data are consistent with previous work,
- A report of a fall in the last 12 months is associated with increased use of services including GP and hospital admission,
- Report of a fall may be an early marker of increasing care needs, and
- This may be useful marker for increased care planning and improving access to fall's prevention programs.

Conclusions

- This feasibility study demonstrated interest in the development of a 45 and Up Study primary and community health cohort,
- These demonstration studies have provided some examples of how the cohort might be used,
- The next steps are to up date the linked data that is available and to expand the scope of the analyses,
- Formal partnership agreements and project governance arrangements between LHDs, PHN, and CPHCE,
- Sources of sustainable funding are being explored, and
- There are potential opportunities to involve other regions and organisations in NSW

Thank you

Contact details

A/Professor Elizabeth Comino

E.Comino@unsw.edu.au

Ph: 02 9612 0771

Acknowledgement: NH&MRC project grant
the Sax Institute
collaborators