

Celebrating 30 years of the MIDSPAN Studies



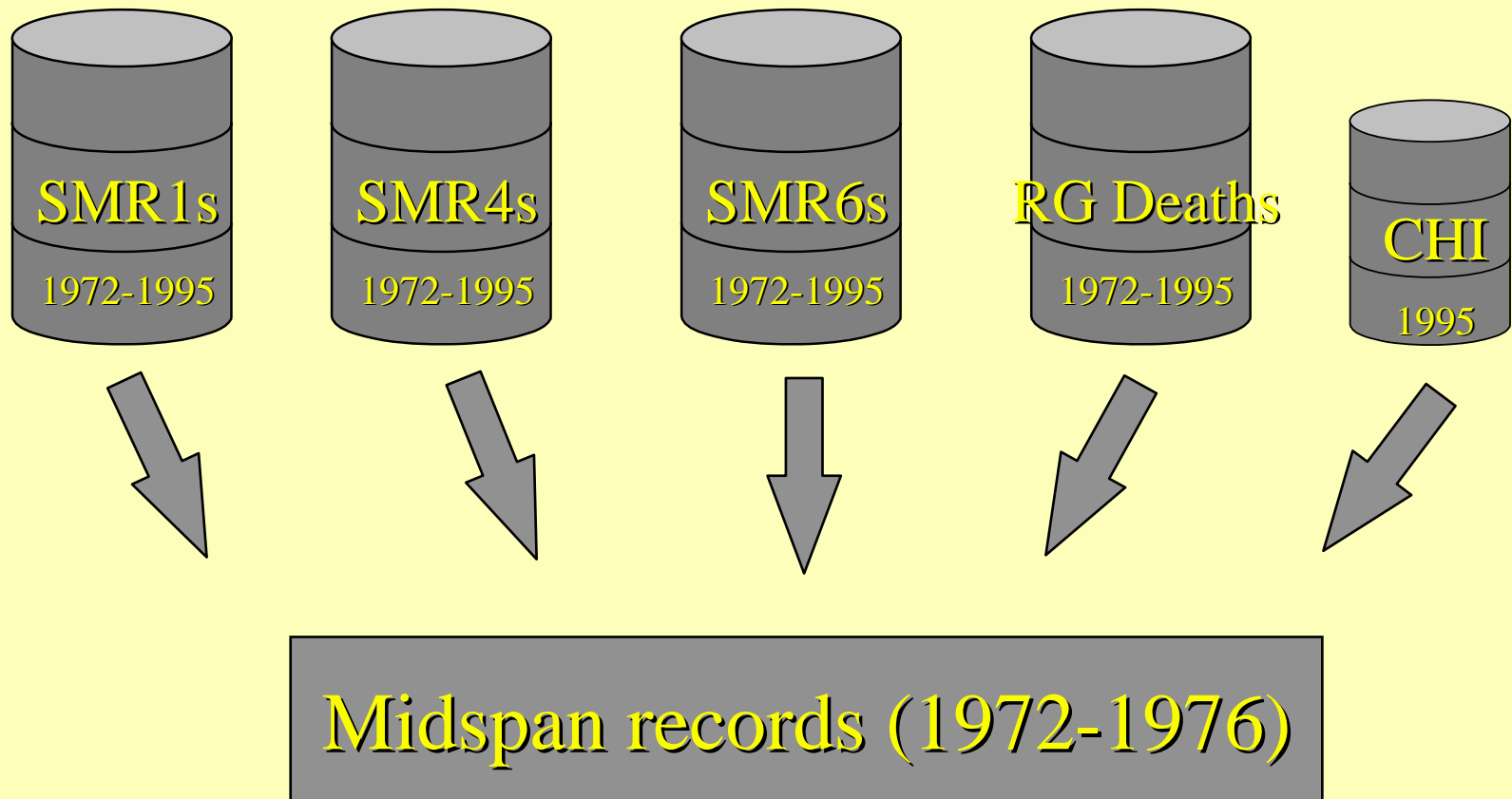
Hospital use

Phil Hanlon

‘PREVAIL’

- **Paisley & Renfrew Evaluation of Vitality & Ageing In later Life’**
- **Phil Hanlon, Mary Gilhooly, Pauline Lightbody, Sheila Scott, David Walsh & Bruce Whyte**

Follow-up: creation of a new 'linked' Midspan database



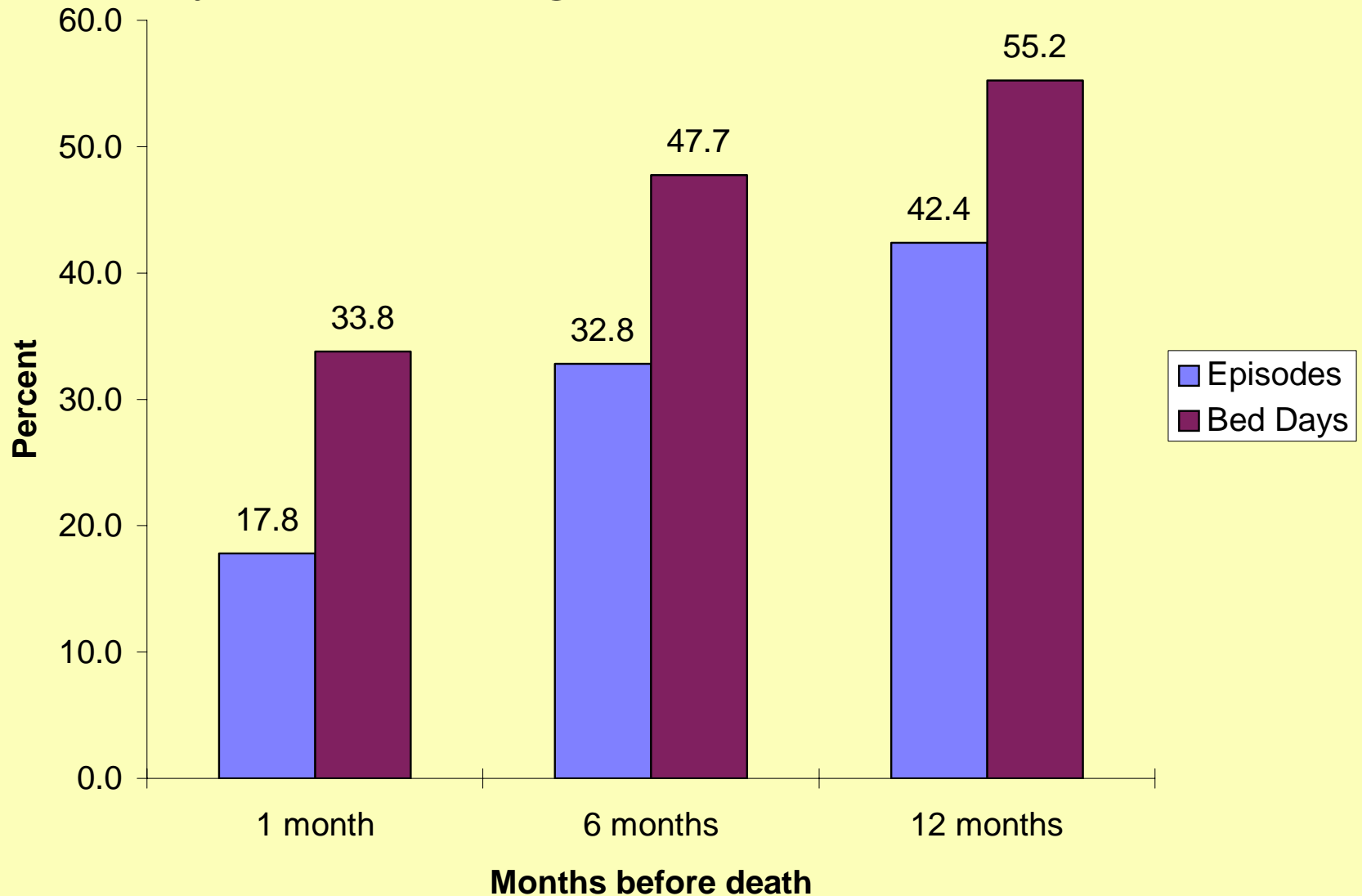
Hospital Utilisation I

- What happened to the cohort?

By the end of 1995...

- 56% still alive (mostly resident in the area)
- 79% had experienced at least one acute hospital stay
- 5% had experienced at least one mental health admission

Non-survivors' SMR1 episodes & bed days occurring near to time of death



Hospital Utilisation I

Pattern of acute admissions mirrored that of the country as a whole....

- Decreasing mean lengths of stay
- Rising number of episodes
- Rising number of patients admitted
- Rising multiple admissions

‘General’ acute admissions

Calculation of relative risk of admission to (acute) hospital with following outcomes:

- ‘Any’ acute admission
- A ‘serious’ acute admission
- A ‘serious’ acute admission or death (whichever occurred first)
- Death

Body Mass Index

Relative risk of *underweight* compared to those of normal weight:

Any admission:	n/s
Serious admission:	1.36 (1.14 - 1.63)
Serious/death:	1.35 (1.16 - 1.57)

Relative risk of *obese* compared to those of normal weight:

Any admission:	n/s
Serious admission:	1.22 (1.13 - 1.31)
Serious/death:	1.15 (1.08 - 1.22)

Blood sugar

Relative risk of those with *abnormal* blood sugar compared to those with normal levels:

Any admission:	1.56 (1.27 - 1.93)
Serious admission:	1.87 (1.45 - 2.42)
Serious/death:	2.05 (1.67 - 2.52)

Cholesterol

Relative risk of those with *highest* recorded cholesterol compared to those with lowest:

Any admission:	0.93 (0.88 - 0.98)
Serious admission:	0.91 (0.84 - 0.97)
Serious/death:	0.93 (0.87 - 0.98)

Deprivation category

Relative risk of those in *most deprived* areas (6-7) compared to those in least deprived (1-2):

Any admission: 1.13 (1.04 - 1.22)

Serious admission: 1.19 (1.07 - 1.34)

Serious/death: 1.25 (1.13 - 1.37)

FEV1

Relative risk of those with *lowest* recorded FEV1 compared to those with highest:

Any admission:	1.27 (1.19 - 1.35)
Serious admission:	1.50 (1.38 - 1.63)
Serious/death:	1.63 (1.52 - 1.75)

Blood pressure

Relative risk of those with *highest* recorded blood pressure compared to those with lowest:

Any admission: 1.06 (1.01 - 1.12)

Serious admission: 1.23 (1.14 - 1.32)

Serious/death: 1.43 (1.35 - 1.52)

Sex

Relative risk of *male* cohort members
compared to females

Any admission:	1.23 (1.18 - 1.30)
Serious admission:	1.26 (1.18 - 1.34)
Serious/death:	1.54 (1.46 - 1.63)

Smoking

Relative risk of *current smokers* compared to those who had never smoked:

Any admission:	1.17 (1.13 - 1.23)
Serious admission:	1.29 (1.22 - 1.37)
Serious/death:	1.42 (1.35 - 1.49)

‘What if...?’

- *What if* the cohort had been entirely non-smoking?
- *What if* the cohort had all lived in the least deprived areas of Paisley & Renfrew?
- *What if* the cohort had all had high FEV1?
- Combinations of *What if...* scenarios

What if...?

- All never smoked:
 - 7% decrease in persons admitted
 - 12.4% decrease in episodes
 - 8.2% decrease in bed days accumulated
- All lived in least deprived areas:
 - 5.9% decrease in no. of persons admitted
 - 11.7% decrease in no. of episodes
 - 22.7% decrease in no. of bed days
- All high FEV1
 - 6.5% decrease in cohort members admitted
 - 12.2% decrease in no. of episodes
 - 21.7% decrease in no. of bed days

££££££££££!

- *Very* crude estimate of savings
- All never smoked: -£2.4 million
- All living in least deprived areas: -£6.5 million
- All high FEV1: -£6.3 million
- Combinations...
- Over 23 years, but for cohort of only 15,000 people

Identification of ‘healthy’ and ‘unhealthy’ cohort members

- SMR-based definitions of healthy/unhealthy
- Verification of status:
 - GP Visits
 - Questionnaires
- Is SMR data a good proxy measure of ‘health’?
- qualitative interviews

“PREVAIL”

**Paisley & Renfrew Evaluation of
Vitality & Ageing In later Life**