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Premature retirement in Australia: What role does illness play

International Medical Workforce 2007, March 20-25,
Vancouver, British Columbia, Canada



Overview

- Treasury's Intergenerational Report and the Productivity Commission's Report on the Economic Implications of an Ageing Australia
 - labour shortages which will limit economic growth and taxation revenue
 - promoted deferred or gradual retirement



Treasurer's speech, Federation Square, Melbourne Wednesday, 4 October 2006 10:00am

“Well after a very long period, the longest period of economic growth, continuous economic growth in Australia’s history, we have now got unemployment at 30 year lows. To boost capacity in this country we need to encourage a higher proportion of people to engage in the workforce. Those areas where I think we can get higher engagement would be amongst women, it would be amongst older Australians who have in the past retired, say between 55 and 65, we want to encourage them to maintain their connection with the workforce and there are other groups too that traditionally haven’t engaged as highly as we would like and that is a question of ensuring that we encourage people with incentives to come into the workforce and also that we are carefully targeting welfare, because some people have taken welfare as an alternative to getting into the workforce.”



Overview (2)

- But, does living longer mean we can work longer
 - 50% of men and 20% of women retire early as a result of their own ill health
- In this paper:
 - examine the disabling conditions which keep baby boomers from working
 - what are the implications for policy promoting longer employment?



Data source

- The 2004-05 National Health Survey (Australian Bureau of Statistics)
- Examined trends in a various measures of health status - general health status measures (self reported health status), long term health conditions and specific long term conditions (such as diabetes and arthritis).
- Measures of labour force participation - being either employed or looking for work



Labour force participation by self-assessed health status males, by age 40 to 64, 2005

Self assessed health status	Sex	actual participation	expected “well” * and age/sex adjusted participation	“well” * and age/sex adjusted participation
1-Excellent	M	93%	91%	102%
2-Very good	M	92%	91%	101%
3- Good	M	86%	91%	94%
4-Fair	M	64%	88%	72%
5-Poor	M	29%	87%	34%
All	M	83%	90%	92%

* Well = no “work-limiting” long-term conditions



Labour force participation by self-assessed health status females, age 40 -64, 2005

Self assessed health status	Sex	actual participation	expected “well” * and age/sex adjusted participation	“well” * and age/sex adjusted participation
1-Excellent	F	76%	75%	101%
2-Very good	F	76%	75%	101%
3- Good	F	64%	73%	87%
4-Fair	F	43%	70%	61%
5-Poor	F	24%	70%	35%
All	F	66%	73%	90%

* Well = no “work-limiting” long-term conditions



What conditions do people in very good health suffer?

Unspec. back trouble	30.3%	Cataracts, Epilepsy, certain other nervous system	1.7%
Other circulatory	14.6%	Other signs and symptoms	1.7%
Endocrine/nutr/metab/immunity (excl diabetes A)	12.7%	Diseases of blood and blood forming organs	1.4%
Bronchitis/emphysema/Asthma/	9.0%	Infectious and parasitic diseases	1.0%
Mental Conditions (excl alc/drug dep)	8.2%	Congenital anomalies	0.9%
Circulatory - Atherosclerosis/Heart disease/Stroke	4.8%	Rheumatism	0.8%
Digestive system - Other Digestive system	3.2%	Other Skin and subcutaneous tissue	0.7%
Urinary system	2.7%	Neoplasms	0.6%
Injury and poisoning - Other injuries/undefined	2.4%	Alcohol and drug dependence	0.5%
Digestive system - Stomach ulcer/ulcer	1.9%	Diabetes mellitus - type A	0.1%



What conditions do people in fair health suffer?

Unspec. back trouble	59.0%	Other signs and symptoms	6.0%
Other circulatory	34.3%	Urinary system	5.7%
Endocrine/nutr/metab/immunity (excl diabetes A)	30.4%	Alcohol and drug dependence	3.9%
Mental Conditions (excl alc/drug dep)	25.0%	Diseases of blood and blood forming organs	3.6%
Bronchitis/emphysema/Asthma/	21.2%	Neoplasms excluding skin cancer	3.1%
Circulatory - Atherosclerosis/Heart disease/Stroke	17.2%	Rheumatism	3.0%
Injury and poisoning - Other injuries/undefined	8.4%	Other Skin and subcutaneous tissue	2.1%
Digestive system - Other Digestive system	7.7%	Infectious and parasitic diseases	1.8%
Cataracts, Epilepsy, certain other nervous system	7.1%	Congenital anomalies	1.8%
Digestive system - Stomach ulcer/ulcer	7.1%	Diabetes mellitus - type A	1.7%



Long-term conditions and labour force participation, persons 40-64 years 2005

Number of long-term conditions	actual participation	expected "well" * and age/sex adjusted participation	"well" * and age/sex adjusted participation
0	86%	90%	96%
1	86%	86%	101%
2	81%	84%	96%
3	77%	82%	94%
4	74%	81%	92%
5 or more	59%	77%	76%
All	74%	82%	91%

* Well = no "work-limiting" long-term conditions



What are some of the most common long term conditions?

- Far sightedness
- Short sightedness
- Other eye conditions
- Hayfever



Work-limiting conditions & labour force participation, persons 40-64 years 2005

ICD9 code	actual participation	expected “well” * and age/sex adjusted participation	“well” * and age/sex adjusted participation
Diabetes mellitus - type A	43%	76%	56%
Rheumatism	45%	78%	58%
Alcohol and drug dep.	47%	90%	52%
Cataracts, Epilepsy, nervous	51%	78%	66%
Urinary system	55%	77%	71%
Neoplasms excl. skin cancer	55%	79%	70%
Atherosclerosis/Heart /Stroke	55%	76%	72%
Localised swelling/other	56%	79%	71%
Stomach ulcer/ulcer	57%	81%	71%
Mental Conditions ex drug alc	59%	81%	73%
Congenital anomalies	61%	80%	76%
Other Digestive system	61%	77%	79%
Endocrine/nutr/metab/immunity (excl diabetes A)	62%	77%	80%



Most work-limiting comorbidities 2005

ICD9	ICD9	actual participation	expected "well" * and age/sex adjusted participation	"well" * and age/sex adjusted participation
mental	digest1	27%	80%	34%
endocr	nervous	28%	72%	38%
mental	rheum	29%	78%	36%
digest1	urinary	30%	76%	39%
alcohol	respir	32%	82%	38%
circ1	urinary	32%	69%	47%
endocr	rheum	34%	74%	46%
circ1	respir	34%	75%	45%
respir	rheum	34%	74%	46%
neoplasm	circ2	34%	74%	46%
circ1	digest2	36%	68%	53%
mental	urinary	36%	77%	47%
nervous	respir	37%	77%	48%
nervous	circ2	38%	74%	51%



“Missing” workers by most work-limiting morbidities

Most work-limiting condition	No. of people with condition	Expected “well” * and age/sex adjusted no. in the workforce	Actual no. in the workforce	“Missing” workers *
Mental Conditions (excl alc/drug dep)	665796	540311	419895	120416
Musculoskeletal (excl / back trouble)	1074290	849688	772959	76729
Atherosclerosis/Heart disease/Stroke	319898	245514	195706	49808
Cataracts, Epilepsy, other nervous syst	152814	119808	81889	37920
Bronchitis/emphysema/Asthma/other re	434632	356931	319665	37267
Alcohol and drug dependence	76803	69029	35925	33103
Rheumatism	94970	73012	43627	29385
Endocrine/metab/immunity (excl diab A)	347406	280328	254783	25545
Localised swelling/other signs sympto	112790	87798	69107	18690
Injury and poisoning - Other injuries	142036	118336	103994	14342
Neoplasms excluding skin cancer	71374	56676	43321	13355

* Negative numbers occur at the end of this table because ranking was based on conditions data and missing workers generated from persons data. If someone’s most work-limiting condition is a low-ranking one, he/she is likely to be relatively “well”.



“Missing” workers by most work-limiting morbidities 2

Most work-limiting condition	No. of people with condition	Expected “well” * and age/sex adjusted no. in the workforce	Actual no. in the workforce	“Missing” workers
Diabetes mellitus - type A	31785	24623	14550	10073
Digestive system - Stomach ulcer/ulcer	123053	101291	93805	7486
Urinary system	99141	77660	70451	7210
Other circulatory	311153	251819	246366	5453
Congenital anomalies	28436	23135	19086	4049
Digestive system - Other Digestive sys.	65279	53567	50206	3361
Diseases of blood and blood form. Org.	56038	45876	45854	23
No or Other condition	2128049	1820995	1820995	0
Infectious and parasitic diseases	14094	12279	13408	-1129
Other Skin and subcutaneous tissue	22765	19239	20606	-1366
All	6372603	5227916	4736197	491719



“Missing” workers 2005 – top comorbidities

Condition 1	Condition 2	No. of people with condition	Expected “well” * and age/sex adjusted no. in the workforce	Actual no. in the workforce	“Missing” workers
Mental Cond	Mental Cond	182872	147250	87935	59315
Musculoskeletal	Other cond	554346	447073	409589	37484
Musculoskeletal	Musculoskeletal	228105	179068	160172	18896
Bronchitis/emphy	Musculoskeletal	130007	105669	89072	16597
Alcohol and drug	Mental Cond	36061	32547	16576	15971
Musculoskeletal	Other circulat	85288	64246	52176	12070
Endocrine/nutr/m	Other condition	172532	142117	130262	11854
Rheumatism	Mental Cond	24631	18739	7815	10924
Nervous system	Musculoskeletal	25895	19226	9329	9897
Circulatory	Circulatory	41853	31734	22574	9160
Injury	Musculoskeletal	47952	39437	30871	8566
Mental Conditions	Circulatory -	29432	21997	14227	7770
Mental Conditions	Musculoskeletal	110620	87478	79859	7619
Nervous system	Mental Cond	23533	19537	12160	7377



Conclusions

- Better health assoc ↑ LFP
- Conditions ↑ assoc NILF:
 - Diabetes (A), Rheumatism, Alcohol & drug dep.
- Conditions most people NILF:
 - Mental health, musculoskeletal, heart dis/stroke
- Comorbidities most people NILF:
 - Mental health ++, musculoskeletal ++



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Morbidity groups

Infectious and parasitic diseases	Infectious and parasitic diseases
Neoplasms excluding skin cancer	Neoplasms excluding skin cancer
Diseases of blood and blood forming organs	Diseases of blood and blood forming organs
Mental Conditions (excl alc/drug dep)	Anxiety/nervousness/tension Depression Emotional problems (nec) Mental retardation, specific delays in development/speech impediment/difficulty Other mental disorders
Alcohol and drug dependence	Alcohol and drug dependence
Endocrine/nutr/metab/immunity (excl diabetes A)	Diabetes mellitus - type B High cholesterol Other disorders
Diabetes mellitus - type A	Diabetes mellitus - type A
Cataracts, Epilepsy, certain other nervous system	Cataracts, Epilepsy, certain other nervous system
Circulatory - Atherosclerosis/Heart disease/Stroke	Atherosclerosis Heart disease Stroke(incl. after effects) Ill-defined signs and symptoms of heart conditions



Morbidity groups (2)

Other circulatory	Fluid problems Haemorrhoids Hypertension Other cerebrovascular disease
Bronchitis/emphysema/Asthma/other resp	Bronchitis/emphysema/Asthma/other respiratory
Digestive system - Stomach ulcer/ulcer	Digestive system - Stomach ulcer/ulcer
Digestive system - Other Digestive	Digestive system - Other Digestive system
Urinary system	Urinary system
Other Skin and subcutaneous tissue	Other Skin and subcutaneous tissue
Musculoskeletal (excl rheumatism and unspec. back trouble)	Disorders intervertebral disc" Curvature of the spine Osteoporosis Rheumatoid arthritis Osteoarthritis Arthritis nec Absence of limbs or parts of limbs Other diseases
Rheumatism	Rheumatism
Congenital anomalies	Congenital anomalies
Localised swelling/other signs symptoms conditions	Localised swelling/other signs symptoms conditions
Injury and poisoning - Other injuries/undef	Injury and poisoning - Other injuries/undefined



“Missing” workers by most work-limiting morbidities slide2,

-ve nos due to:

- Sort on conditions DB and NILF (but most have others)
- Missing workers based on persons DB and these people who ONLY have these least work limiting condits -> ↑ for this subset with these lower ranked conditions