

Increasing disability-free life expectancy among older adults in Palestine from 2006 to 2010

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Healthy longevity – Where you lived or how you live?**

Health Status in Palestine

The mortality pattern has changed from infectious diseases to non-communicable diseases as the main causes of death

- Heart disease, stroke, diabetes and cancer account for about one half of the total deaths

Increasing urbanization has entailed an urban life style with adverse changes in the risk profile

- Smoking, poor dietary habits, sedentary life style and obesity are now highly prevalent
- The prevalence of obesity is about 40%, and among the growing number of 60-year-olds, about 35% reported having hypertension and 25% reported having diabetes in 2006

Lifetime with chronic disease

In our previous study we found that expected lifetime with chronic disease at the age of 60 increased both for men and women from 2006 to 2010:

- From 9.6 to 11.3 for men, and from 13.6 to 14.4. for women
- In particular for men with hypertension (2 years) and diabetes (1,5 years)

The expansion of morbidity could be due to a higher prevalence of chronic diseases caused by a higher incidence as part of the recent changes in the risk profiles

- But it could also be caused in part by earlier detection, and by better treatment and rehabilitation leading to longer survival and lesser disability with chronic diseases
- Therefore, it would be of interest to evaluate the trend of DFLE at older ages in the same periode

The Palestinian Family Health Surveys in 2006 and 2010

- The 2006 survey: 13,238 representative households (response rate 88.0%)
- Divided in two representative section – one including a questionnaire designed for senior citizens: 7,056 households
- 1,722 participants aged 60 or older were interviewed, including answering questions on self-care disability
- The 2010 survey: 15,355 representative households (response rate 89,4%), including the questionnaire for senior citizens
- 3,633 participants aged 60 or older were interviewed, including answering questions on self-care disability

Self-care disability

Ability to perform five basic daily activities

- Using toilet
- Bathing
- Undressing/dressing
- Going to bed or seat
- Eating

Disability was identified according to three levels

- No disability: All daily activities without help
- Mild disability: One or two daily activities with help
- Severe disability: Three or more daily activities with help

Methods

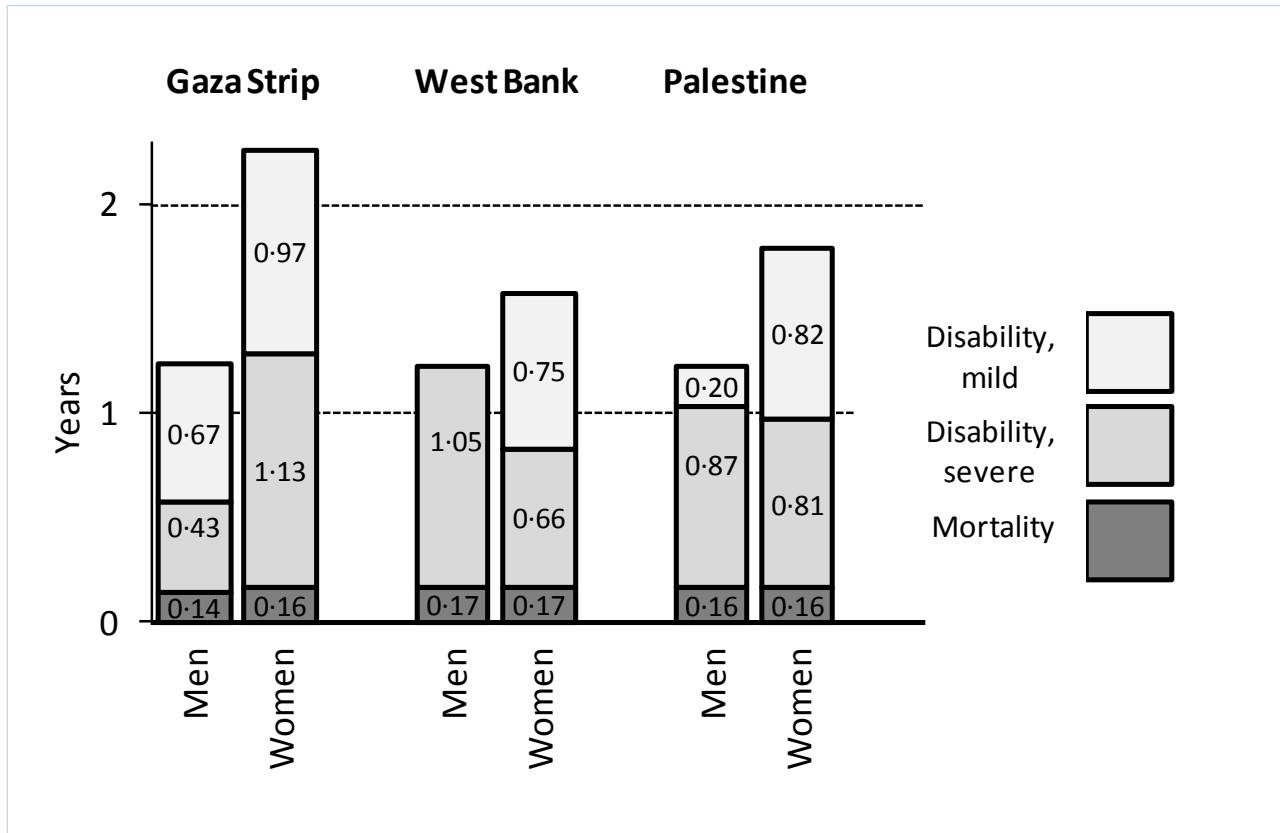
- Estimation of disability prevalence was based on the answers about self-care disability in the two Palestinian Family Health Surveys (2006 and 2010)
- Life tables were established using MortPak (the UN software package for mortality measurement)
- Disability Free Life Expectancy (DFLE) at age 60 was estimated by Sullivan's method
- Changes between 2006 and 2010 were decomposed into the distributions from changed mortality and changed disability (Nusselder and Looman 2004)
- Statistical test of equality between gender, region and time period were done using a Z-test

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	Calendar year	Life expectancy	Expected lifetime without disability	Expected lifetime with mild disability	Expected lifetime with severe disability
		Years	years (95% CI)	years (95% CI)	years (95% CI)
Men					
Gaza Strip	2006	16.9	12.2 (11.3-13.1)	2.0 (1.3-2.7)	2.8 (2.0-3.5)
	2010	17.2	13.4 (12.8-14.0)	1.4 (1.0-1.7)	2.4 (1.9-2.9)
West Bank	2006	17.2	13.1 (12.5-13.8)	1.5 (1.1-2.0)	2.5 (1.9-3.0)
	2010	17.4	14.4 (14.0-14.8)	1.6 (1.3-1.9)	1.5 (1.2-1.7)
Palestine	2006	17.1	12.8 (12.3-13.4)	1.7 (1.3-2.1)	2.6 (2.1-3.0)
	2010	17.3	14.1 (13.7-14.4)	1.5 (1.3-1.8)	1.7 (1.5-2.0)
Women					
Gaza Strip	2006	18.5	11.3 (10.3-12.2)	2.7 (1.9-3.4)	4.6 (3.7-5.4)
	2010	18.8	13.5 (12.9-14.2)	1.7 (1.3-2.2)	3.5 (3.0-4.1)
West Bank	2006	18.9	13.3 (12.7-14.0)	2.6 (2.1-3.1)	3.0 (2.5-3.6)
	2010	19.2	14.9 (14.5-15.3)	1.9 (1.5-2.2)	2.4 (2.1-2.7)
Palestine	2006	18.7	12.6 (12.1-13.2)	2.6 (2.2-3.0)	3.5 (3.0-4.0)
	2010	19.0	14.4 (14.1-14.8)	1.8 (1.6-2.1)	2.8 (2.5-3.1)

Life expectancy at age 60, expected lifetime without disability, with mild and severe disability – Palestine, 2006 and 2010



Decomposition into the mortality effect and the mild and severe disability effects of changes between 2006 and 2010 in disability-free life expectancy at age 60 in Palestine.

Conclusion

- DFLE increased significantly and more than LE among both gender and both regions in Palestine from 2006 to 2010.
- Furthermore, expected lifetime with disability decreased for both genders, and both for mild and severe disability.
- While the contribution of mortality was modest, the contribution from the disability effects was substantial.

Interpretation

- The increase in DFLE is remarkable and to our knowledge not seen in other low-income countries.
- Of course it is a short period, and we don't know how valid the information about self-care disability is. The interpretation should therefore be made with caution.
- It may be due to decreasing incidence of disability and greater recovery from disability as a result of better prevention, care and rehabilitation of chronic diseases.
- Since 2000 great effort has been made in prevention, care and rehabilitation of hypertension and diabetes which are highly prevalent in Palestine.

The gender gap

- LE in Palestine at the age of 60 in 2010 is about the same level as LE at the age of 65 in the European Union, but the gender gap is smaller (1.7 versus 3.5 years)
- DFLE increased a little more for women than for men (1.8 versus 1.3 years) but was only a little higher among women than among men in 2010 (14.4 versus 14.1 years).
- Women in Palestine have much higher prevalence of obesity, hypertension and diabetes than men, although the proportion of smokers is much lower.

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Thank you for your attention!

