

Women's Burden of Disease and Injuries in East Azerbaijan

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Abstract

Background: The aim of this study is assessment of burden of disease in East Azerbaijan women.

Materials and Methods: In this project we used of disability adjusted life years (DALY) as an index of burden of disease.

Results: Cardiovascular disease, cancers and unintended injuries 71.98% of DALY for premature death. The 3 leading causes of YLD in East Azerbaijan province were: psycineurotic disorders, musculoskeletal and urogenital diseases.

Conclusion: This study shows that YLL is 3 fold of YLD and this indicated to lower quality of life of women.

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Introduction

Recent studies show that, although women have longer life expectancy, but they have higher proportion of burden of disease. Rapid economic growth and urbanization cause to endanger of women's reproduction who have high risk job and finally general health of mentioned women in developing and low income countries endanger [1, 2]. For policy making in prevention, diagnosis, treatment and for correct implementation of policies, we need to precise information of mortality of women.

Since in twenty century mortality has decreased in developed countries and many people has spent their life with inability and serious disease, mortality indicators are insufficient tool for measuring of general health [3, 4].

Evaluation of people health need to more indicators of mortality which name burden of disease. This index is years of life that lost and years of life that is spending with inability and named DALY (5). In fact DALY is sum of years life lost (YLL) and years lost disability (YLD). The aim of this study is assessment of burden of main disease in East Azerbaijan province.

Materials and Methods

In this cross-sectional study use of DALY as a burden of disease index. DALY is a sum of YLL and YLD. YLL for each disease is multiply of number of death result of mentioned disease and YLD ($YLL = N * L$). For each

disease YLD in the determined period is multiply of incidence in the mean of disease period and disease severity ($YLD = I * DW * L$). Each unit of DALY is a 1 lost year of life [5].

In this study YLL was calculated with base of national census in 2006 and recorded death in 2007. In death record system, all of death is recorded in health houses, health centers, hospitals, legal medicine centers and cemeteries with regard of standard death certification. For underestimation of death cases more than 5 years old persons we use of Brass growth balance method and the ratio of recorded death compare of statistics of civil status registration office of East Azerbaijan.

The death recorded system in the provincial health center had been recorded of 91% of death cases compare of civil status registration office. In this research was used of correction coefficient 1.11. Data was entered of Excell software and YLL was calculated with regard of main death cases.

The prevalent approach of years of lost life is comparing of standard life expectancy. The highest life expectancy is for Japanese women. In the researches of burden of disease, standard tables are mixing West model of Coale and Demeny which measured SEYLL (Standard Expected Years of Life Lost). For death age cases regards of age and sex we used from age valuing and promotion [6]. For measurement of YLD of disease for East Azerbaijan we used of national project of burden results in 2003.

Table 1. Burden of first 10 specific and prevalent disease in East Azerbaijan, 2007

Specific and prevalent disease in women	DALY(%)	YLL/YLD	DALY*	YLD*	YLL*
Ischemic disease and myocardial infarction	8.62	1.79	30531	10966	19575
Traffic accident	3.97	0.92	14069	7314	6755
Cerebral vascular disease	4.86	3.27	17211	4031	13180
Depression	6.27	0	22222	22222	0
Anemia	3.51	0.01	12442	12278	164
Falling	1.63	0.09	5778	5326	461
Addiction	0.06	1.48	206	83	123
Low back pain	3.11	0	1009	11009	0
Knee arthritis	3.12	0	11044	11044	0
Diabetes	2.51	1.01	8898	4419	4479
Chronic obstructive pulmonary disease	2.27	0.64	8084	4898	3150
Diarrhea	1.95	0.03	6902	6704	198
Bipolar disorders	1.84	0	65502	6505	0
Burning	1.47	0.74	5195	2979	2216
Stomach cancer	0.94	19.8	3348	161	3187
Asthma	1.16	1.47	4096	1661	2435
Schizophrenia	0.07	20.09	232	11	221
Seizure	1.17	0.27	4154	3269	885
Peptic ulcer	1.05	0.16	3714	3214	500
Renal failure	0.82	14.53	2904	187	2717
Pulmonary cancer	0.5	26.15	1765	65	1700

Results

There is 8605 death among women in 2007. Majority of death (3891 women, 45.22%) died for cardiovascular disease. DALY was estimated 292046 years. Approximately 102808 years (35.16%) was belonged YLL and 189338 years (64.83%) was for YLD. Cardiovascular disease, cancers and unintended accidents were 3 first causes of years of lost life for premature death. Mental disorders, musculoskeletal disease and urogenital organ disease were top 3 of lost years for disability.

Discussion

Assessment of prevalent disease shows that ischemic heart disease, car accident and cerebra vascular disease were among of the main causes of burden of disease. According to world health organization (WHO) in 2008 nearly 60% of burden of disease was related to non communicable disease, about one third of that was for mental disorders. Coronary heart disease and unintended accidents had second and third rank respectively [6]. According to Naghavi et al. study car accident, myocardial infarction, addiction, depression and stroke were the most important causes of death and inability, this findings consist with our study [7].

This pattern confirms the transient feature of disease from communicable to non communicable. One of the main risk factors of heart disease is obesity. Seif and his colleagues showed that in East Azarbaijan approximately 64% of women had overweight and 30% of them affected by obesity [8]. Because of obesity is one of the approved risk factors of cardio vascular disease, educational programs for prevention of obesity should be conducted for all of population especially for women.

This research shows that mental disease has second rank in our province. Among mental disease, depression had most proportion (nearly 6%) and had forth rank in disease. In the world depression has forth rank of burden of disease too. In 2000 4.4% of total DALY was for depression and 12.2% life lost years for disability was for

mentioned disease. Depression is one of the most disabling disease [9]. In 2004, 13.4% of YLD among women was for depression. Although depression is prevalent between men and women but the burden of these disorders in women is 50% more than men [5].

In regards of considerable burden of depression, anxiety and other mental disorders, necessity of pay attention to these disorders and developing of special programs by health system is clear. According to whom death result of car accidents is one of the top 10 death causes in adult women 9-20 years [10].

Incidence of death result of car accident in Iran estimated 30/ 100,000 death, although mean death of car accident on the world is 22.6/100,000. In our country the third cause of death is traffic accidents and 7.9% of DALY is belonged to mentioned cause [11]. In province women YLD is 3 fold of YLL. This issue confirmed that compare of men the quality life of women is worse. Although in Iran life expectancy in women is more than men but for health and social factors women spend more years with disability. Inequality to access of information, basic services and care caused to women health treated [12].

Naghavi in his study showed similar model in all of country. Its meaning that women carry disability burden and men vary death burden. Generally acute outcomes of disease, related to employment and social problems are for men and chronic outcomes are for women [7]. With regards of women health significance and effect of their health on family health, it's suggested more studies about burden of disease with regards of age groups conducted.

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Authors' Contributions

All authors had equal role in design, work, statistical analysis and manuscript writing.

Conflict of Interest

The authors declare no conflict of interest.

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