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## ИЗВЕСТИЯ

НАЦИОНАЛЬНОЙ АКАДЕМИИ НАУК  
РЕСПУБЛИКИ КАЗАХСТАН  
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## NEWS

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## ADDRESSING THE GROWING BURDEN OF NCDs: RETURN TO ALMA-ATA AND PRIMARY HEALTHCARE APPROACH

**Abstract.** Last year was the 40<sup>th</sup> anniversary of the Declaration of Alma-Ata. The conference organized by WHO and the United Nations Children's Fund proclaimed the ambitious goal - Health for All by the Year of 2000 and introduced the Primary Health Care approach that was considered as the means to achieve the goal. At the same time, some authors think that the main Alma-Ata deficiency was the fault to clearly define the difference between primary medical care and PHC approach, which involves universal coverage, inter-sectoral collaboration, community-based curative and preventive services. This short report discusses the excessive alcohol consumption and its dynamics throughout years in Kazakhstan and other post USSR countries, linking it to high rates of non-communicable diseases (NCDs) within these countries. It also emphasizes the importance of intersectoral approach in tackling excessive alcohol consumption that may well lead to an improved management of NCDs.

**Key words:** Declaration of Alma-Ata, Primary Health Care approach, Excessive alcohol consumption, Noncommunicable diseases, mortality.

**Introduction.** Population health and healthcare all over the world has changed drastically within the last few decades. Since the world community has made a progress in tackling communicable diseases, people overall are now living longer both in low/middle-income countries (LMIC) and high-income countries (WHO, 2018). Along with such improved life expectancies, middle-income countries have also been experiencing demographic transition that leads to a new public health and economic problem such as ageing. (Abegunde et al., 2007) According to official statistics, by 2030, almost 71 percent of people over 60 are expected to live in low- and middle-income countries (WHO, 2018). Furthermore, more people are suffering from NCD's in LMIC. Consequently, an adequate focus on ageing populations and age associated health conditions are needed in these countries.

**NCDs in the world.** Rapid ageing of population is a new challenge in the management of NCD's. According to WHO reports (2014) ,71 percent of premature death is attributed to NCDs. In addition, as these data states further, 15 million people between 30 and 69 years die annually, and 85% of death from NCD occurs in Low- and Middle income countries. This could be explained by socioeconomic differences within these countries and the ways NCDs are addressed. As an example, a systematic review by Sommer et al., (2015) shows that low socioeconomic status in low and middle income countries contributes to some of the NCDs' increase including cardiovascular diseases, lung and gastric cancer, type 2 diabetes, and chronic obstructive pulmonary disease. Numbers of other risk factors such as tobacco use, physical inactivity, a harmful use of alcohol and unhealthy diets are also well known causes of high NCD mortality rates (WHO, 2018). Previous studies have demonstrated the importance of modifying such behavioral risk factors of NCDs in controlling NCD's mortality (WHO, 2013). In that sense, an inter-sectoral approach earlier declared in Alma-Ata conference can be applied as one of the promising tools in NCDs' management. Therefore, this discussion will focus on potential use of inter-sectoral approach in tackling excessive alcohol consumption, as one of the major contributors of high NCD's mortality in Kazakhstan.

*Alcohol consumption and NCDs.* Alcohol consumption is one of the important sectors of NCDs’ management. According to the latest GDB reports, alcohol has elevated to the third highest risk factors of NCDs development among men and to the seventh among both men and women worldwide (Kisa,2018). Correspondingly, in the last WHO Global Action Plan for the prevention and control of NCDs 2013-2020, the harmful use of alcohol, was for the first time included in a list of NCDs’ main risk factors and suggested to be addressed through cross-sectoral government engagement (WHO, 2013). Another action taken to tackle NCDs took place at the Alma-Ata conference; Primary Healthcare (PHC) approach was emerged from a synthesis of ideas and experiences from various geographical regions in addressing NCDs. Countries such as Sri Lanka, China, and Costa Rica have achieved substantial success in implementing this PHC approach (Tarimo, Webster and Services, 2018). However, such results are restricted to other developing countries including Kazakhstan.

*Case study: alcohol use and NCDs’ mortality rates in Kazakhstan.* High mortality rates from NCDs have long been one of the major challenges to be addressed in Kazakhstan. For example, in 2016 NCDs were responsible for almost 86% of overall death in the country and almost 27% of them were attributed to premature NCD mortality (WHO Noncommunicable Diseases Country Profiles, 2018). However, alcohol is not only a problem of Kazakhstan and other former Soviet Union countries. The countries of so called historical vodka belt experienced similar problems and exposed high taxes on strong spirits (Doria.fi, 2018), their health indicators are among the best in the world. For example, Sweden had 46 litres of alcohol (mostly strong spirits) per capita consumption in mid-19 centuries (Vinbudin.is, 2018) but currently has only 10 litres per capita while the spirits’ intake is approximately 15% (Doria.fi, 2018).

Kazakhstan, similar to Russia and other former Soviet Union countries, has experienced a significant increase in CVD and total mortality since the disintegration of USSR in 1991(WHO, 2018). This, however, was not solely a result of the collapse of the healthcare system, but rather a combination of many economic, social and behavioral factors. It has also been demonstrated that among the diverse risk factors of NCDs identified in Russia and former USSR countries, alcohol consumption has been one of the major contributors of high NCDs morbidity and mortality rates (Pomerleau et al., 2008). For example, as it can be seen in figure 1, there is an increasing gap in NCD mortality between Kazakhstan and the Czech Republic since 1990, when the health indicators were almost equal (WHO. 2018).

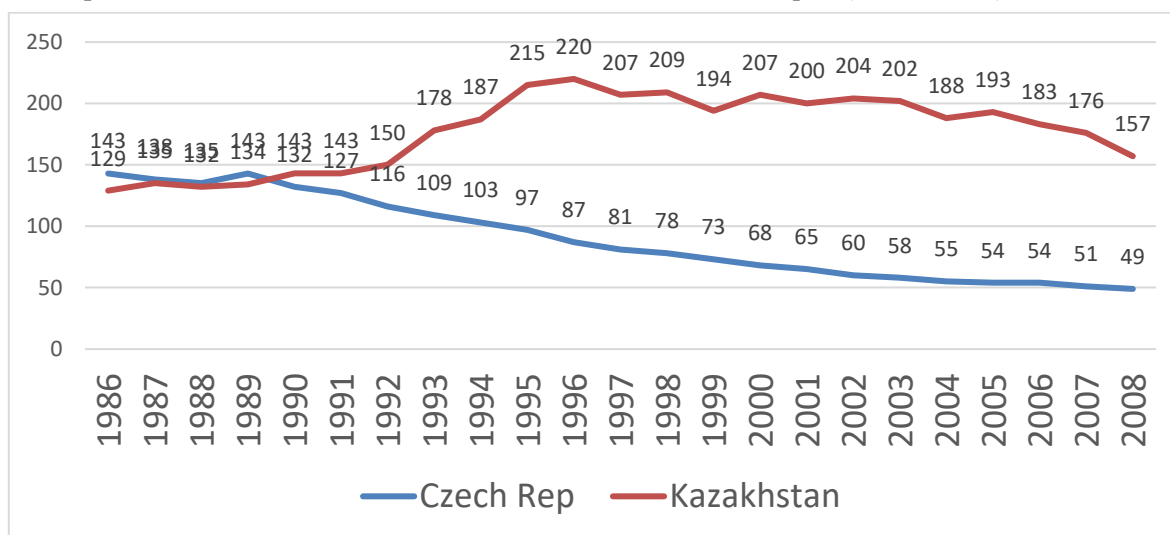


Figure 1 – Age-standardized NCD death rates per 100,000, <65 age, males, (Kazakhstan and Czech Republic)

The diagram below shows the fluctuations of age-specific all-cause mortality among males in Kazakhstan in 1985-2012. The first sharp decline happened in mid-80<sup>th</sup>, mostly in younger age groups, happened after Gorbachev’s measures on alcohol but mortality soared among all age groups after the collapse of Soviet Union and following hard economic transition. Notably, that while mortality started to decline among the oldest age group after passing the hardest time of economic transition in mid-90<sup>th</sup>, mortality among younger age groups remained highly stable and even have been increasing in the time of economic growth in 2000<sup>th</sup>.

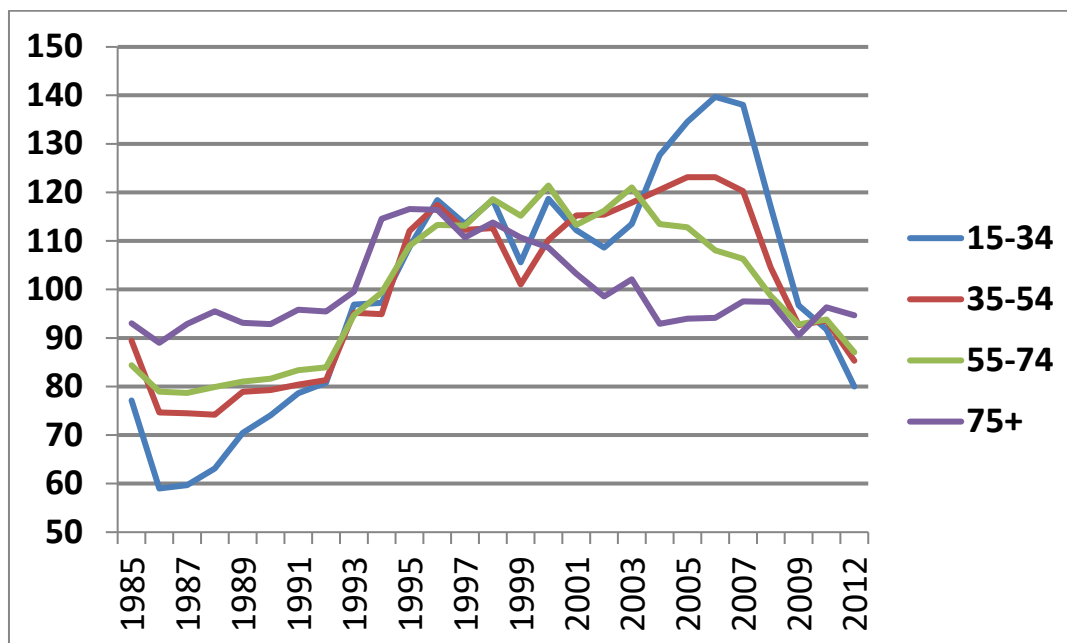


Figure 2 – Age-specific all causes mortality trends, males, Kazakhstan, 1985-2012

In Kazakhstan, major changes in mortality rates have occurred within the last few years. Age-standardized all-cause and NCD/CVD mortality rates declined dramatically over the period 2008-2015 (by 29%), for both men and women (Who.int, 2018). The NCD/CVD mortality trend was mirrored by changes in mortality from accidents, traumas and poisoning (figure 3), and was accompanied by more than 20% decrease of homicides and suicides - rates which can be considered proxies for hazardous alcohol consumption (WHO, 2018).

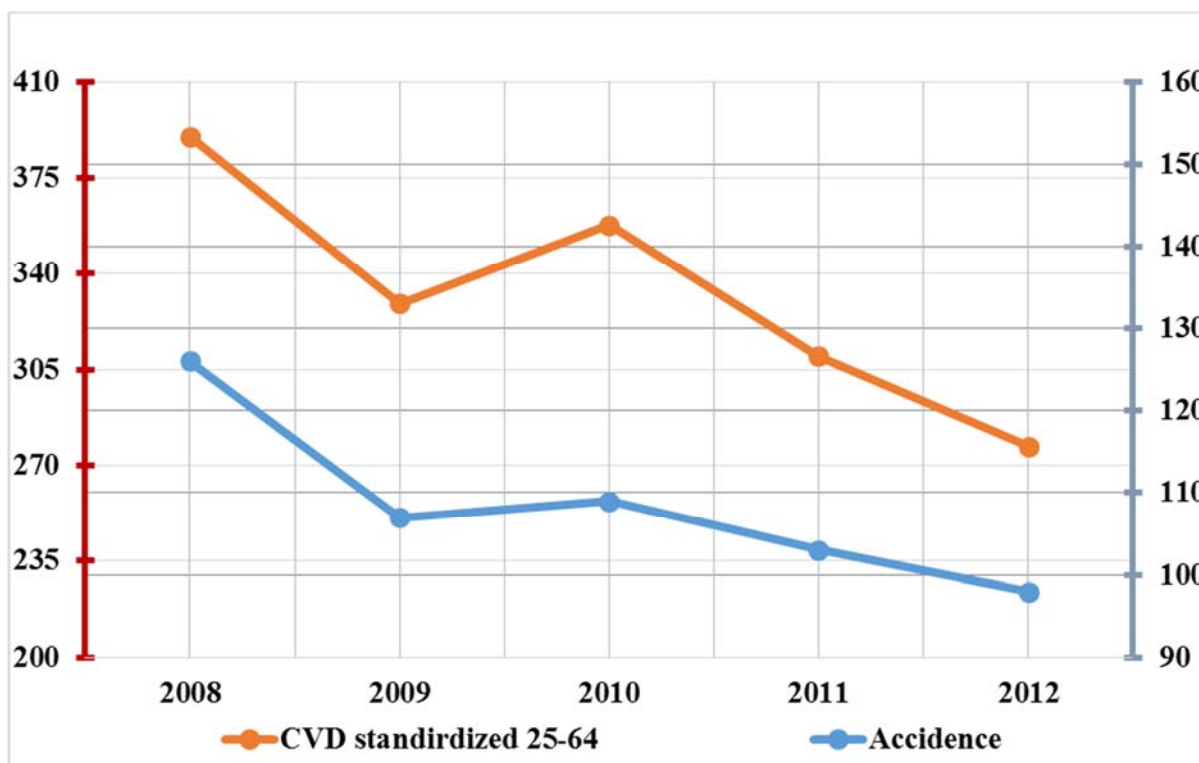


Figure 3 – CVD mortality and accident mortality trends in Kazakhstan, 2008-2012

These mortality trends also coincided with a decrease in strong spirits production and sales and an alcohol tax increase (table) (Esc365.escardio.org, 2018). There seems to be a shift from vodka in all-cause mortality was steepest among younger age groups, and much consumption towards beer and wine use, while the government has also introduced successful tax policies on various alcohol beverages (Davletov et al., 2015). The decline less pronounced or even barely detectable in older age groups. These findings are consistent with the hypothesis that alcohol consumption was the main factor influencing the decline of NCD and all-cause mortality (Davletov K. et al., 2016).

Mortality, vodka price and tobacco sales trends in Kazakhstan, 2006-2013

	2006	2007	2008	2009	2010	2011	2012	2013
CVD mortality per 100,000	408	404	377	341	348	305	275	215
All-cause mortality per 100,000	980	970	918	845	856	819	787	723
Accidents mortality per 100,000	150	145	126	107	109	103	98	91
Retail vodka sales (million litres)*	56	53	65	48	23	27	27	34
Min. vodka price, KZT	160	258	357	500	600	640	640	640
Aver. vodka price, KZT	358	496	520	618	1365	1380	1462	1507
Retail tobacco sales (thousand boxes)*	177	136	126	99	64	51	55	33
Aver. cigarettes box price, KZT	47	63	73	82	131	139	157	1940
*Estimated by dividing total sales per year to average price.								

These assumptions might indicate that excessive premature NCD/CVD mortality in Kazakhstan is driven mostly by dangerous alcohol consumption. Therefore, consistent policy measures on reduced alcohol consumption, such as sustained tax increases, should be continued to sustain mortality reduction. Intersectoral collaboration that is a part of PHC approach, first time outlined in Alma Ata declaration, may produce larger effect compared to other prevention programs.

Thus, NCDs should be seen as a challenge for all sectors and reflected in policy across sectors. In line with the spirit of Alma-Ata, government health ministries has to create partnerships with other sectors, agencies and communities to develop inter-sectoral policies which address the determinants of inequities and ill-health ( Tarimo, 1997). Governments has to develop multi-sectoral national NCD plans to reduce exposure to risk factors and consider the development of national targets and indicators (NCD Action Plan)

In conclusion, by taking advantage of the 40th anniversary of the Alma-Ata declaration, it is time to revitalize the real meaning of Alma-Ata Declaration in relation to NCDs to address the situation where the most of risk factors lie outside of direct control of health sector.

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### **ЖЕА-ДЫҢ ӨСП КЕЛЕЖАТҚАН АУЫРТПАЛЫҒЫМЕН КҮРЕСУ: АЛМА-АТА ДЕКЛАРАЦИЯСЫ МЕН НЕГІЗГІ ДЕНСАУЛЫҚ САҚТАУ ТӘСІЛІНЕ ОРАЛУ**

**Аннотация.** Былтырғы жыл Алматы декларациясының 40 жылдығы болды. ДДСҰ мен Біріккен Ұлттар Ұйымы Балалар қорымен ұйымдастырған конференцияда өршіл мақсат жарияланды - 2000 жылға қарай барлығын Денсаулықпен қамту және Негізгі Денсаулық сақтау тәсілі таныстырылды. Бұл тәсіл мақсатқа жету құралы болып қарастырылды. Сонымен қатар кейбір авторлардың ойынша, Алма-Ата декларациясының басты кемшілігі алғашқы медициналық көмек пен Алғашқы Денсаулық сақтау тәсілі арасындағы айырмашылықты анық жеткізе алмауы болып табылады. Алғашқы Денсаулық сақтау тәсіліне әмбебап қамту, салааралық ынтымақтастық, қоғамға негізделген емдік және профилактикалық қызметтер жатады. Бұл қысқаша баяндамада Қазақстандағы және басқа да бұрынғы КСРО елдеріндегі алкогольді шамадан тыс тұтыну және оның жылдар бойғы динамикасы, осыған орай осы елдердегі ЖЕА-дың жоғарғы көрсеткіштері талқыланады. Сонымен қатар бұл баяндамада шамадан тыс алкогольді тұтынуды жоюда сектораралық көзқарастың маңыздылығына баса назар аударылады. Бұл өз кезегінде ЖЕА-ды басқаруды жақсартуға әкелуі мүмкін.

**Түйін сөздер:** Алма-Ата декларациясы, Негізгі Денсаулық сақтау тәсілі, Алкогольді шамадан тыс тұтыну, Жұқпалы емес аурулар, өлім-жітім.

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### **ОТВЕЧАЯ НА РАСТУЩЕЕ БРЕМЯ НИЗ: ВОЗВРАТ В АЛМА-АТИНСКОЙ ДЕКЛАРАЦИИ И ПОДХОДУ ПМСП**

**Аннотация.** В прошлом году исполнилось 40 лет Алма-Атинской декларации. Конференция, организованная ВОЗ и Детским фондом Организации Объединенных Наций, провозгласила амбициозную цель - Здоровье для всех к 2000 году и впервые представила подход первичной медико-санитарной помощи, который рассматривался как средство достижения этой цели. В то же время некоторые авторы считают, что основным недостатком Декларации Алма-Аты было четкое определение различий между первичной медицинской помощью и так называемым подходом ПМСП, который включает в себя всеобщий охват, межсекторальное сотрудничество, лечебные и профилактические услуги на уровне сообщества. В этой статье обсуждается чрезмерное потребление алкоголя на протяжении многих лет в Казахстане и других странах постсоветского пространства и обсуждается связь потребления алкоголя с высоким уровнем неинфекционных заболеваний (НИЗ) в этих странах. В статье особенно подчеркивается важность межсекторального подхода в борьбе с чрезмерным потреблением алкоголя, что должно привести к улучшению ситуации с НИЗ.

**Ключевые слова:** Declaration of Alma-Ata, Primary Health Care approach, Excessive alcohol consumption, Noncommunicable diseases, mortality.

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