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Foregoing medicines in the former Soviet Union: Changes between 2001 and 2010

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ABSTRACT

Pharmaceutical costs dominate out-of-pocket payments in former Soviet countries, posing a severe threat to financial equity and access to health services. Nationally representative household survey data collected in Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia and Ukraine were analysed to compare the level of population having to forego medicines in 2001 and 2010. Subgroup analysis was conducted to assess differences between populations of different economic status, and rural and urban populations. A substantial proportion of the population did forego medicines in 2010, from 29.2% in Belarus to 72.9% in Georgia. There was a decline in people foregoing medicines between 2001 and 2010; the greatest decline was seen in Moldova [rate ratio (RR) = 0.67 (0.63; 0.71)] and Kyrgyzstan [RR = 0.63 (0.60; 0.67)], while very little improvement took place in countries with a higher Gross National Income (GNI) per capita and greater GNI growth over the decade such as Armenia [RR = 0.92 (0.87; 0.96)] and Georgia [RR = 0.95 (0.92; 0.98)]. Wealthier, urban populations have benefited more than poorer, rural households in some countries. Countries experiencing the greatest improvement over the study period were those that have implemented policies such as price controls, expanded benefits packages, and encouragement of rational prescribing. Greater commitment to pharmaceutical reform is needed to ensure that people are not forced to forego medicines.

1. Introduction

In September 2011, world leaders meeting at the United Nations stated their commitment to act against the growing burden of non-communicable disease (NCDs) [1]. Among the agreed actions was the promotion of "increased access to affordable, safe, effective and quality

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medicines", recognised as an essential element of a comprehensive response to this epidemic [2]. Yet, access to medicines remains no more than an aspiration in many countries with the highest burden of NCDs [3]. Among them are the countries of Eastern Europe and Central Asia [4].

The Soviet Union created a functioning health system that brought basic care to its citizens. It was the world's largest health system in terms of bed numbers and doctors per capita, all medical assets were owned by the state and services were provided free of charge at the point of use. The Soviet system was characterised by a strictly hierarchical management structure which managed activities according to centrally determined plans [5]. However, the state pharmaceutical production never developed sufficient capacity to ensure the supplies needed by those with chronic disorders, and patients were not able to benefit from pharmaceutical advances in widespread use in the west [6]. Shortages were a definitive feature of the Soviet economy [7], and the supply of pharmaceuticals was no less affected. Health was also a 'non-productive' branch of the economy so pharmaceutical production was not a political priority and the Soviet Union was reliant on imports to meet the needs of its population [8]. Moreover, most outpatients were expected to pay cost price for drugs, although prices were heavily subsidised [9]. After the Soviet pharmaceutical supply network collapsed in 1991, the problem of availability shifted to one of affordability, as western imported drugs are widely viewed as being higher quality than locally made generics [9], but command much higher prices.

Following the break up of the Soviet Union, most countries underwent significant health system reform to address problems that had existed in the Soviet era. Reforms followed different trajectories across countries, but included, for example, decentralisation of decision making, strengthening of primary health care, introduction of private and social health insurance, and general modernisation of outdated systems [10,11]. Due to severe fiscal constraint after 1991, health system reforms were also responding to cuts in health expenditure. In the face of such cuts, it was politically easier to reduce cover of outpatient pharmaceuticals than other forms of health care, due to their historical exclusion from full cover under the benefits package. As a result, pharmaceutical costs dominate out-of-pocket payments throughout the region, and pose a threat to financial equity and access to services [10]. In most countries, only a few vulnerable groups can obtain drugs for a limited range of conditions within the benefit package (Table 1), though access for these groups is still limited by co-payments and lack of coverage for complications and comorbidities. Furthermore, due to shortages of supplies and patient concerns about the quality of pharmaceuticals provided, some exempted patients also continue to purchase pharmaceuticals at full price [12,13,14]. Availability of drugs is particularly problematic in rural areas due to physical inaccessibility, limited drug stocks, and sometimes an absence of pharmacies [15]. Additionally, rural populations can face a higher burden of out-of-pocket payments, attributed to monopoly pricing because there are fewer outlets [16]. In this way, while the rapid privatisation of retail pharmacies soon after the collapse of the Soviet Union improved access in urban areas, it also exacerbated access problems in rural areas where private pharmacies that were not sufficiently profitable were closed. Rapid privatisation also limited the regulatory capacity of policymakers [8].

Clearly, it will be impossible to tackle the growing burden of NCDs in this region unless access to medicines can be ensured. Little is known of how access to medicines varies between countries in the region, and how this has changed in recent years. Existing studies that assess changes in pharmaceutical access and affordability over time are confined to single countries such as Kazakhstan [16], Kyrgyzstan [17–19] and Russia [20]. This study uses household survey data from eight post-Soviet countries (i) to determine the proportion of the population foregoing medicines, (ii) to compare how the situation has changed over the past decade and (iii) to assess differences in foregoing medicines between populations of different economic status, and populations living in urban and rural areas.

2. Materials and methods

The data for this study were derived from two cross-sectional studies, which involved household surveys in Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia and Ukraine in 2001 for the Living Conditions, Lifestyles and Health (LLH) study (http://www.llh.at), and the follow-up Health in Times of Transition (HITT) study (http://www.hitt-cis.net) in 2010. Of the other post-Soviet countries, Estonia, Latvia and Lithuania were excluded because their health systems and health outcomes have followed very different trajectories to the other post-Soviet countries as a result of joining the European Union. Uzbekistan, Turkmenistan, Azerbaijan and Tajikistan were excluded due to concerns that political interference and insecurity would invalidate the research findings. These studies collected data on a range of health and socio-economic indicators, with similar questions asked in both years to allow comparability. Further details of the study design are reported elsewhere [10], but in summary, the studies used nationally representative cross-sectional design and multi-stage random sampling. Primary sampling units were selected from a sampling frame of a complete list of local administrative units using probability proportional to size technique. Households were then randomly selected using the random walk method, and one person (aged 18+) then randomly chosen (based on nearest birthday) to be interviewed. Response rates varied from 71% to 88% in the 2001 study and from 47% to 83% in the 2010 study. Despite lower response rates in the later surveys, both were considered representative of national populations as assessed by socio-demographic variables from censuses.

Face-to-face interviews were conducted by trained fieldworkers in the respondents' homes using a standardised questionnaire. In the LLH survey, 2000 interviews were completed in each country, apart from Russia (4000) and Ukraine (2400), due to their larger and more diverse populations. In the HITT survey the sample size for each country