Health research in Central Asia

Article by Sylvia de Haan (pictured), Kaspar Wyss and Maksut Kulzhanov

Health research is essential to obtain up-to-date information of relevance to the local situation to inform policy and decision-making.[1,2,3] Health research can also contribute to identifying, analysing and addressing inequities, for example in resource mobilization, allocation and utilization resulting in unequal health status. Essential inputs for health research are human resources and institutions. Recently, a number of publications have highlighted serious health workforce shortages[4,5,6,7] that are further aggravated by poor human resource management practices,[8,9] and it is becoming increasingly clear that human resources largely determine whether and how health services are offered to those in need[10,11,12] as well as whether national health research contributes to addressing the health needs of countries.

This general concern with human resource development and management is particularly valid for the situation in the Central Asian countries. These countries in transition face many challenges in improving population health, health care delivery and access to health facilities thereby addressing equity concerns and poverty alleviation. While Central Asia has progressively become a priority area for development assistance and health sector development, investments in health research have largely remained a neglected area. Using the example of Kazakhstan and Tajikistan, this article argues that health sector development and ongoing health sector reforms in the Central Asian Republics would benefit from strategies and policies to strengthen institutions and their research capacity to address priority health needs and contribute evidence to inform decision-making.

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Central Asia – a region with countries in transition

At the crossroads between Asia and Europe, the countries of Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan) have faced many challenges in establishing and stabilizing their states since gaining independence in 1991 upon the dissolution of the Soviet Union. The countries have gone through a health and health system transition. Health status indices, as well as human development indicators, have deteriorated since the 1980s. The first years of Kazakhstan's independence were characterized by economic decline. Economic recession in the early and mid 1990s led to a dramatic rise in poverty, rising unemployment rates, growing income disparities, uneven regional development and declines in health and educational services.

The country's transition problems have been reflected in its decline in development rankings. In 1990 Kazakhstan was among the countries with high human development, ranking 54th out of 173 countries in UNDP's Global Human Development Report.[13] In 1995 it had dropped to rank 93, and in the most recent Global Human Development Report Kazakhstan occupies the 78th position.[14] Although GDP increased on average 8% annually over the last 5 years, this has not led to an increase in the proportion of GDP spent on health, which remained at 2%. The transition period in Tajikistan has been more difficult, as it was worsened by civil war. Its economy collapsed, and between 1991–1997, GDP contracted by almost 70%. With a per capita GDP of US$180, Tajikistan remains one of the poorest countries in the world.[15] It ranks 116 in the 2004 Human Development Index.[14]

Health systems and health sector reform in Central Asia

Along with social and economic disparities, inequality has emerged in the population's health and in access to health care.[16,17] For example, in Tajikistan the better off income groups are reported to have higher health service use rates than poor groups.[17] Central Asian countries inherited a Soviet health system, which offered in theory universal access to a basic level of health care. This system was found to be no longer affordable and years of under-investment left their mark. Public expenditure on health in Tajikistan is estimated to be a mere US$1.5 per capita.[15] Health sector reforms are being implemented across the region. In Tajikistan the focus is on strengthening primary health care, distributing resources according to need, developing human resources, rationalization of services, improving quality of care, strengthening management capacity, ensuring necessary information for management and creating personal responsibility for individual health among the population.[18] It

is clear that, in spite of available knowledge, these priority areas require additional evidence, information and research to support rational decision-making and policy development in key areas like family medicine strengthening, financing reforms (including social health insurance) or human resource development.

Health research in Central Asia

The health and health research workforce have faced special challenges during these last two decades, being exposed to a new market economy setting, changing institutions and decreasing funding levels. Health research systems, inherited from the Soviet era, largely focus on clinical and biomedical disciplines, and include a network of scientific centres and a health research workforce focusing on these disciplines. Historically, less emphasis is given to public health, primary health care research priorities and needs[19] and social science. In addition, the financial resources for health research are used primarily to cover salaries and infrastructure, and thus few resources are available for the actual carrying out of research.[20] This makes the health research system sensitive to the influence of external donors and international research institutions and may lead to these actors determining the research agenda,[21] rather than national needs and priorities guiding national research activity.

Recognition of the need to reform the health research system, along with the health system, is shown in the recently approved national health programme in Kazakhstan for 2005–2010.[22] The broad public health oriented focus of the national health plan is supplemented by a chapter referring to the need for a reform of the medical sciences. The fundamental as well as applied research disciplines should focus on public and population health priorities. For this approach to succeed major emphasis on strengthening the human resources for health research is required.

Human resources for health research

A wide range of skills (both at individual and institutional levels) are needed to generate, analyse and utilize knowledge that can be used to inform decision and policy-making and thus contribute to better health and a more equitable distribution of health gains.[23,24] Besides training sufficient numbers of people in all relevant disciplines, an enabling environment for producing research, including career opportunities, research inputs, and access to networks, are generally crucial for strengthening human and institutional capacity for health research. The absence of these preconditions has been highlighted as contributing to the migration of health professionals.[25] Komarov and Tcherniavskii[26] describe the health research situation for the Russian Federation, in which they point to the decreasing number of institutions as well as number of researchers. A recent study in Georgia, a country with a similar system and experiences, illustrates the negative impact of the decrease in human and institutional research capacity, and worked on rebuilding this capacity to ensure that health research contributes to a responsive health care system.[27]

The fundamental as well as applied research disciplines should focus on public and population health priorities

Besides the migration of health and health research professionals to other countries, an internal brain drain is taking place. Well qualified people are increasingly attracted to favourable employment conditions in the private sector, as well as to international institutions operating within the country. An additional concern is that many of the international, vertical, disease-oriented initiatives attract well-qualified national professionals. This leaves more integrated approaches to health systems strengthening understaffed and under-researched. Evidence from other parts of the world shows exactly this: published peer-reviewed research from low-income countries is directed towards health priorities addressed by the major international vertical programmes, leaving other national health issues under-researched.[28]

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Supporting health research development in Central Asia

The transition from the Soviet era and the drastic changes which characterize at present health systems in Central Asian countries, underline the need for data, information and knowledge, which could provide the basis for informed decision-making in health sector reform. It also underlines the need for a critical mass of individuals skilled in the production, management and utilization of such knowledge. Developing human capacity has to be complemented by building-up institutions that enable health researchers to work in a conducive environment.

No detailed and up-to-date assessments of health research and human resources for health research are available for Central Asia. Although it is clear that there is a discrepancy between the need for information and routinely collected health data and the information resulting from health research currently conducted, additional information on the health and health research situation in these countries is urgently needed. The Council on Health Research for Development (COHRED), jointly with local partners, is initiating projects in the region to map health research

systems. This process is, for Tajikistan, supported by the Swiss Development Cooperation (SDC), one of the few bilateral agencies actively supporting the health sector in the region. The information that will be gathered through these projects will provide a base for discussion with national and international partners on how to reform health research systems and ensure a better linkage between health research and health systems strengthening. In Tajikistan, project Sino, also funded by SDC and implemented by the Swiss Tropical Institute, strengthens capacity for planning, monitoring and evaluating health interventions. Using a participatory approach, systematic inquiries and research are undertaken by individual and institutional actors at various levels of the Tajik health system. The aim is to improve practices in the area of health sector reform, as well as to deepen the understanding of these practices and of the situations in which they are carried out. These experiences (e.g. in the area of financing reforms) are fed into national policy-making, and subsequently disseminated at oblast and rayon level.

Conclusion

A reorientation of health research in Central Asia towards a more public and population health oriented approach to address the most urgent health problems is needed. Existing institutions will need to review their mandates and discuss what their roles are in contributing to finding solutions for the national health needs of their country, and what capacity is required to fulfil this role. National and institutional policies for human resource and institutional development need to be developed that also take into account the enabling environment needed to offer appropriate working conditions. In addition, international research projects and programmes will have to contribute to the goals and strategies laid out in institutional and national plans. Their capacity building efforts should contribute to the overall national capacity to address public and population health priorities, thus strengthening national health systems. ❑

Sylvia de Haan *is Head of Programmes at the Council on Health Research for Development (COHRED) and is responsible for the implementation and management of country and regional projects supported by COHRED, including those in Central Asia.*

Kaspar Wyss *is a Senior Researcher and Public Health Specialist at the Swiss Tropical Institute. One of his research interests focuses on the role and importance of human resources development and policies. He is in charge of the 'Tajik-Swiss Health Sector Reform and Family Medicine Support Project' and other projects in China and Africa.*

Maksut Kulzhanov *is Rector of the Kazakhstan School of Public Health and is a former Deputy Minister of Health, in which position he had major responsibility for health sector reform and health care research in Kazakhstan.*

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