



Redesigning Health Care in ECA: Some Lessons from the UK

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Key Messages

- Health systems in the Europe and Central Asia region (ECA) have been struggling to deliver good and affordable health care to their populations.
- The basic structure of the health care systems in the region must be redesigned from within, based on available scientific evidence, by revamping clinical processes, organizational structures, management systems, and the cultures that support them.
- The UK Government's National Institute for Health and Clinical Excellence (NICE), set up in 1999 to provide national guidance on the promotion of good health and prevention and treatment of ill health, offers some lessons in this respect. In addition to setting national quality standards, NICE clinical guidelines are used to determine how payments are made to general practitioners and funds allocated for hospital care in the National Health Service (NHS).
- Knowledge partnerships between countries that help them learn from each other's experiences and best practices are becoming increasingly important in the new era of global health. The World Bank can play a major role in fostering these partnerships.

access to quality services and led to a significant increase in out-of-pocket spending by patients for healthcare². The main challenge now is to redesign health systems to effectively address the changing health needs of the population - chiefly the increase in non-communicable diseases such as cardiovascular diseases, cancer, and injuries, as the leading causes of ill-health, premature mortality and disability.

Fixing Health Care: A Worldwide Dilemma

The extraordinary progress in public health and medical knowledge over the last 50 years, coupled with the introduction of new technologies, drugs and procedures, has contributed to the improvement in health conditions and quality of life across the world. But these developments have also disrupted health care organization, as is evident from the experience in different countries where medical care has become fragmented and uncoordinated, with multiple providers serving the same patients³. Several studies show that fragmentation of health service delivery adversely impacts quality, cost, and outcomes of health care⁴. The unrestrained acquisition and use of new medical technologies and procedures (for example, open heart surgery to replace clogged arteries, ultrasound technology scanners to aid in the detection of heart disease, and life-saving antiretroviral drugs for HIV/AIDS) also lead to increased health care costs.

There are no easy solutions to manage these tensions. Countries around the world, not just in ECA, are searching for new approaches to cure their ailing health systems. The shared goal is to improve the quality of services and reduce or curb escalating costs. But, as argued in a recent *Harvard Business Review* article⁵, regardless of what happens to many reform efforts, the old, basic structure of the health care

Why Redesign Health Systems in ECA?

The countries in ECA have been struggling to deliver good, affordable health care to their populations.¹ Indeed, life expectancy gains in the region have been significantly lower than in other middle- or high-income countries, and in some ECA countries the relative low level of public sector funding to cover the cost of free medical care that is already promised by the governments to their citizens has consistently hindered

¹ Rechel, B. and M. McKee. 2009. "Health Reform in Central and Eastern Europe and the Former Soviet Union." *The Lancet* 374: 1186-1195.

² World Health Organization. 2009. *The European Health Report*. 2009. Geneva.

³ Lee, T.H. and J.J.Mongan. 2009. "Chaos and Organization in Health Care." Cambridge, MA: Massachusetts Institute of Technology.

⁴ Enthoven, A.C.. 2009. "Integrated Delivery Systems: The Cure for Fragmentation." *The American Journal of Managed Care* 15: S284-S290.

⁵ Bohmer, R. 2010. "Fixing Health Care on the Front Lines." *Harvard Business Review* 88: 63-69.

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system will remain in place for the foreseeable future. Health systems must be redesigned from within by revamping public health and clinical processes, organizational structures, management systems, and the cultures that support them, by taking into account scientifically established best practices for preventing, diagnosing and treating diseases and injuries.

The United Kingdom (UK) Experience: Using Evidence to Improve Health Care

Faced with the above challenges, the UK government set up the National Institute for Health and Clinical Excellence (NICE) in 1999 to develop national guidance on the promotion of good health, and the prevention and treatment of diseases on the basis of available scientific evidence^{6 7}. In addition to setting national quality standards (Table 1), NICE clinical guidelines are used to help determine how payments are made to general practitioners and funds allocated for hospital care across the UK National Health Service (NHS). Over 100 guidelines covering major diseases have been published and a further 40 are being developed as of 2010.

NICE is also responsible for appraising new medical technologies - including pharmaceuticals, medical devices and diagnostic (imaging and laboratory) tests - for use in the NHS.⁸ NICE's guidance informs NHS drug coverage and reimbursement decisions for new pharmaceuticals and its decisions have an international impact, with 25% of the global market referencing UK prices.

Methodology of evaluation

NICE uses an extensive network of UK universities and professional organizations to synthesize and evaluate public health, clinical and economic data which are then assessed for their quality and applicability to the local UK setting.⁹ NICE is, by law, required to make economic evaluations to judge the comparative value of technologies that provide additional benefit but at an increased cost. Where available, NICE uses the quality adjusted life year (QALY), which takes account of

⁶ S.D. and M. Rawlins, 2005. "Quality, Innovation, and Value for Money: NICE and the British National Health Service." *Journal of the American Medical Association* 294:2618-2622.

⁷ WHO. 2006. The Clinical Guideline Program of the National Institute for Health and Clinical Excellence (NICE). Geneva (EUR/05/5063284).

⁸ Technology Appraisal Program of NICE: A Report by WHO, 2003; http://www.nice.org.uk/newsroom/pressreleases/pressreleasearchive/pressreleases2003/2003_020_independent_international_experts_from_world_health_organisation_review_nice_technology_appraisals.jsp

⁹ Information on NICE's methods for Clinical Guidelines production can be found at:

http://www.nice.org.uk/aboutnice/howwework/developingniceclinicalguidelines/clinicalguidelinedevelopmentmethods/clinical_guideline_development_methods.jsp and information on NICE's Technology Appraisal methods can be found at:

http://www.nice.org.uk/aboutnice/howwework/devnicetech/developing_nice_technology_appraisals.jsp

both length and quality of life as a measure of health benefits.¹⁰ While important, the cost per additional QALY is meant to inform, but not determine, NICE's decisions. Social values are also essential components in the decision-making process and strengthen the legitimacy and social acceptability of NICE's guidance.

Table 1: NICE's Core Objectives and Operational Principles

Objectives	Principles
Set evidence-informed quality standards	Independence from government, industry and individual professional and patient groups
Reduce unwarranted variation in medical practice and improve equity	Transparency: guidance products and methods are a public good
Develop best practice guidance for professionals	Consultation with all those affected by the decisions
Promote the efficient use of healthcare resources	Scientific rigour in methods for guidance production
Encourage good value innovation	Timeliness to meet the needs of a changing healthcare system

Source: Elaboration by authors.

Scientific evidence is not enough: social value and feasibility considerations

NICE engages with the users of the NHS and the broader public in a number of ways:

- All decision making committees have lay membership.
- All guidance, as well as the methods and processes for their production, are subject to public consultation.
- Patient testimonies are a core component of decision-making committee meetings.
- Patients are invited to submit written evidence.
- Patient organizations can appeal against NICE decisions.
- NICE sponsors a dedicated Patient and Public Involvement Program, responsible for engaging with and drawing on the expertise of individual patients and patient groups.

¹⁰ More information can be found at:

<http://www.nice.org.uk/aboutnice/howwework/devnicetech/technologyappraisalprocessguides/guidetothemethodsoftechnologyappraisal.jsp?domedia=1&mid=B52851A3-19B9-E0B5-D48284D172BD8459>

All NICE products are also issued in a simple format and distributed to patients directly and through the internet. In addition, NICE runs the Citizens Council to periodically discuss critical issues, such as: Should age be a factor when making healthcare resource allocation decisions and should efficiency be sacrificed up to a point to favor disadvantaged social groups? The reports form the basis of NICE's guideline on "Social Value Judgments" for the decision-making committees.¹¹

Practical issues are considered before guidance is produced. For example, training requirements for clinicians, in case of a new recommended intervention or need for capital investment in imaging equipment, are all factored into the guidance. All public health guidance is field-tested among public sector bodies (for example, education boards) before being issued.

Budget impact evaluations are also undertaken but NICE guidance is driven not by budgetary impact in the short term but by longer-term value for money. Affordability concerns, though legitimate, can often have perverse implications and bias against, for example, prevention interventions, which may, on aggregate, be expensive in the short-term but are potentially life- and cost-saving in the longer run.

Who makes the decisions?

The clinical, public health and economic evidence, and the broader societal values, are considered by independent advisory committees made up from frontline practitioners, academics, industry representatives, hospital administrators and budget holders, patients, and members of the public. The committee members are not paid by NICE but volunteer their time. NICE facilitates the decision-making process but does not make the decisions itself. This ensures the independence of the final advice and increases its buy-in by stakeholders across the country.

Political backing matters

Given the often difficult and conflicting policy environment that is influenced by public pressure to adopt new health technologies and procedures, support at the highest levels of government is critical for ensuring that priorities are defined on the basis of best available scientific evidence and consideration is given to social values and available budgets¹².

Examples of Impact of NICE Guidance: Improving screening for cancer

In 2003, a new technology for cervical screening, Liquid Based Cytology (LBC), was positively evaluated for its clinical effectiveness and cost-effectiveness and adopted by the NHS. By 2007, almost 90% of laboratories in England were using LBC. The improved technical characteristics of LBC compared to smear test mean that about 200,000 women across England do not have to go through repeat smear tests because the percentage of tests with wrong results has decreased, saving inconvenience, extra cost and concern for the patients.

Ensuring the rational use of drugs

Based on extensive evidence, NICE recommended statins as part of the strategy for primary prevention of cardiovascular disease (CVD) for adults who have a 20% or greater 10-year risk of developing CVD. It also recommended that therapy should usually be initiated with generic drugs. Similarly, NICE guidance on the use of proton pump inhibitors, antihypertensive medication and clopidogrel for secondary prevention of CVD recommended the use of generic drugs and set limits on the initiation and duration of treatment. According to a 2007 report by the UK National Audit Office, the four drug classes above accounted for approximately 20% of the UK's drug bill in primary care. Adherence to NICE guidance was estimated to reduce variation across the country and generate savings of about US\$ 360 million annually. The use of statins for primary prevention of CVD alone is estimated to prevent about 15,000 heart attacks each year.

Tackling high blood pressure

NICE guidance called for an additional investment of about US\$ 108 million in drug treatments for lowering blood pressure. The guidance was estimated to result in savings of about US\$ 396 million from preventing unnecessary hospitalizations due to cardiovascular events; the guidance was estimated to prevent up to 10,000 strokes and 12,000 heart attacks every year.

Controlling alcohol abuse

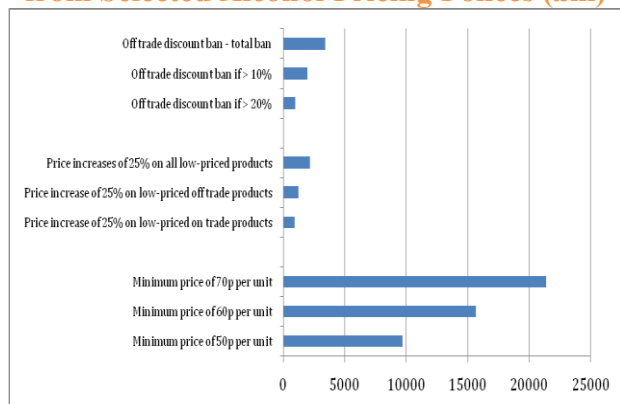
Guidance is being developed for dealing with alcohol use disorders, from prevention and early diagnosis, clinical management of acute alcohol withdrawal, alcohol-related liver disease and pancreatitis, to psychological interventions to help overcome alcohol dependency.

NICE analysis considered three interventions for controlling alcohol abuse: banning discounting and buy-one-get-one-free promotions; price increases through increases in tax and duty; and introduction of a minimum price per unit. Figure 1 depicts the potential savings, over a 10-year period, from the alternative interventions.

¹¹ The Social Value Judgments guideline is available from this link: <http://www.nice.org.uk/aboutnice/howwework/socialvaluejudgements/socialvaluejudgements.jsp>

¹² UK House of Commons, 2007. Health Select Committee, National Institute for Health and Clinical Excellence, Session 2007-08, Ordered by the House of Commons to be printed: December 2007.

Figure 1: Cumulative Discounted 10-year Savings from Selected Alcohol Pricing Policies (£m)



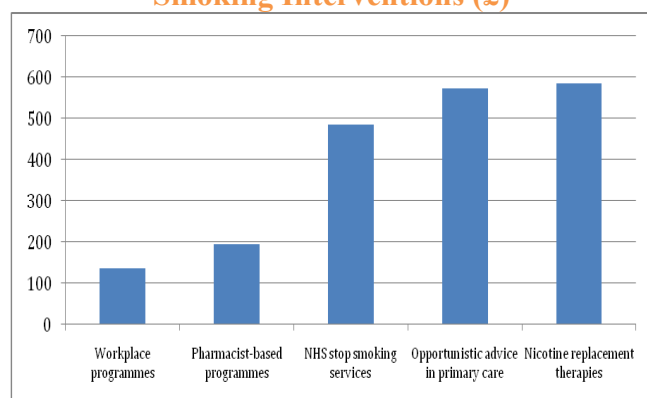
Source: NICE documentation.

Making alcohol less affordable appears to be the most effective way of reducing alcohol-related harm. The evidence, extremely relevant for countries such as the Russian Federation where there is a high prevalence of alcohol abuse, suggests that young people who drink and people who drink harmful amounts of alcohol tend to choose cheaper drinks. Therefore, establishing a minimum price per unit has the greatest potential of limiting the ability of these groups to 'trade down' to cheaper products, whereas it has a negligible impact on people drinking small amounts of alcohol.

Dissuading at-risk groups from smoking

NICE analysis showed that interventions to improve the reach, use and retention of smoking cessation programs in disadvantaged groups are good value for money. The cost per QALY gained for these interventions ranges from about US\$ 234 to US\$ 1,080 (Figure 2). Workplace smoking cessation programs, for example, are 230 times better value for money than alternative interventions.

Figure 2: Cost Per QALY Gained for Selected Stop Smoking Interventions (£)



Conclusion

While the NICE model cannot be simply transplanted to other countries' healthcare settings, policy-makers would benefit from looking at elements of its methodology, process, evidence base, and actual products. Many of them can be *adapted* to other countries' local realities to improve health care organization, public health and clinical practices, and develop new financial mechanisms that link budget allocation with improvements in service delivery and better health outcomes.

NICE is currently advising and working with Ministries of Health from around the world to help them build capacity, gather locally relevant evidence, and strengthen processes and structures for turning this evidence into actionable policies for better public health practices and delivery of medical care¹³. A good example in ECA is the recent agreement signed on March 3, 2010 between the Georgia Ministry of Labor, Health and Social Affairs and NICE.

The development of partnerships between countries to share knowledge, experience and good practices is becoming critical and increasingly important in the new era of global health. Institutions like the World Bank have a major role to play in fostering these partnerships. Indeed, as Julio Frenk, the former Minister of Health of Mexico and current Dean of the Harvard School of Public Health, says: *"In our turbulent world, still scarred all too often by intolerance and exclusion, science remains as the most powerful force for enlightened social transformation. Every country should have access to global knowledge repositories, along with the capacity not so much to adopt evidence as to adapt it to local circumstances."*¹⁴

About the Authors

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¹³ Hawkes, N. 2009. "NICE Goes Global." *British Medical Journal* 338:b103

¹⁴ Frenk, J. 2009. "Changing Health Goals in Globalized World." 2009 David E. Barmes Global Health Lecture at the US National Institute of Health (NIH), December 15, 2009.