



Deoksung Palace, Seoul



Modern Skyline, Seoul

Lessons from the Economies of Russia, East Europe and China for Reform of North Korea and Korean Unification

Christopher Mark Davis
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North Korea has been attracting attention in the international press for its ballistic missiles shot through Japanese airspace, tests of nuclear weapons, and exchanges of polemics with a leader of a major democracy. However, as I found out during a three-week academic visit to South Korea (completed on 30 October), life goes on in that country as normal for most of the population (fluctuations of tensions have occurred since 1953), while academic, think tank and government experts continue to be focussed on important social, economic and political issues related to the present and the future in North Korea.

I was invited to South Korea as a *Visiting International Professor* by the Institute of Unification Education (IUE) of the Ministry of Unification.¹ The purposes were to deliver lectures and talks related to the general subject of *Lessons from Russia, East Europe and China for Economic Transition in North Korea and Korean Unification* and to discuss related issues with South Korean analysts. My invitation was the indirect result of five previous academic visits to South Korea since 2010.²

The IUE arranged for me to deliver eleven speeches and talks during my stay, in response to requests by different host organisations. All my presentations had sections on the features of command economies (a topic relevant to current North Korea) and lessons from economic transition/reform, which were based on my past research and lectures delivered at Oxford for undergraduates and postgraduates since 1991.³ My talks discussed the current state of the North Korean economy, reforms of different sectors that would be needed to raise standards, and peaceful scenarios of the long-term future (10-20 years) involving convergence and integration of the two Korean states, and possible unification.⁴ Ten of the requested talks related to health and one was more general, covering reforms of industry, defence, and health during transition.

¹ I would like to thank to the IUE and the Ministry of Unification for their generous support of my visit. I also would like to give thanks to Ms Yoonhee Kim of the IUE, who arranged and implemented my program and provided excellent translations on numerous occasions.

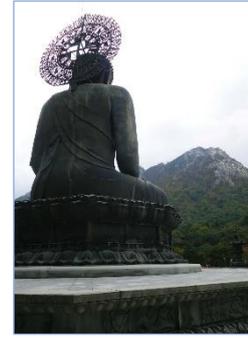
² My trips to South Korea in 2010 and 2012 were partially supported by a grant from The John Fell Fund of Oxford University related to a project on *Demography, Health and Well-Being in the Rising Eurasian Powers: Domestic and International Challenges*.

³ My understanding of command economies has benefited from work under my first Ph.D. Supervisor at Cambridge, University, Michael Ellman, who ran the *Economics of Socialism* seminar and in 1979 had a book published by CUP with the same title.

⁴ Preparation of the sections on North Korea was helped by the publication in September 2017 by CUP of a book by my former D.Phil. in Economics supervisee at Oxford, Byung-Yeon Kim (now a Professor at Seoul National University), entitled *Unveiling the North Korean Economy: Collapse and Transition*.



Dragon with Flowers in
Buddhist Temple, Seoul



Buddha in Mt. Seoraksan
National Park

The most requested talk (six) was *Lessons from the Study of Health Sectors during Economic Transitions in Russia, Eastern Europe and China for Health in North Korea*.⁵ This was based on my research over the years on health economics issues and new work that I have been carrying out since 2010 on national health reforms in the post-Global Financial Crisis period in Russia (2008), China (2009), USA (2010), and UK (2011-12).⁶ After explaining the growing economic and social importance of health sectors in countries with ageing populations, I compared the health sectors of South Korea (SK) and North Korea (NK) using Table 1:

Indicators	Units	2009		2014	
		South Korea	North Korea	South Korea	North Korea
Population	Millions	48.5	22.7	49.0	24.8
GDP Per Capita	\$ PPP	28,000	1,900	33,200	1,800
Share of Elderly in Population	% 65 years and older	10.8	9.4	12.3	9.5
Birth Rate	Births/1,000	8.9	14.8	8.3	14.5
Doctors	Per 1,000 population	1.6	3.3	2.0	3.3
Health Share GDP	%	6.5	3.5	7.2	3.5
Health Expenditure Per Capita	\$ PPP	1,820	67	2,390	63
Infant Mortality Rate	Deaths per 1,000 live births	4.3	51.3	3.9	24.5
Crude Mortality Rate	Deaths/1,000	5.9	10.5	6.6	9.2
Life Expectancy at Birth, Total Population	Years	78.7	63.8	79.8	69.8

Prepared by C. Davis, September 2017

⁵ This talk was delivered at the following institutions: 13/10 Association for Health and Korea Unification, Dongguk University; 16/10 Unification Studies Association and Social Welfare Studies Association, Ewha Womens' University; 18/10 Korea Institute for National Unification; 23/10 Institute for Peace and Unification Studies, Seoul National University; 24/10 Ministry of Unification; and 27/10 Social Science Korea Research Center, Korea University.

⁶ Since 2013 my research on health in Russia and other countries has been supported by the Russian Presidential Academy of the National Economy and Public Administration through the *Research Laboratory on the Economics of Health and Health Reform*.



View from Cable Car Station in
Mt. Seoraksan National Park

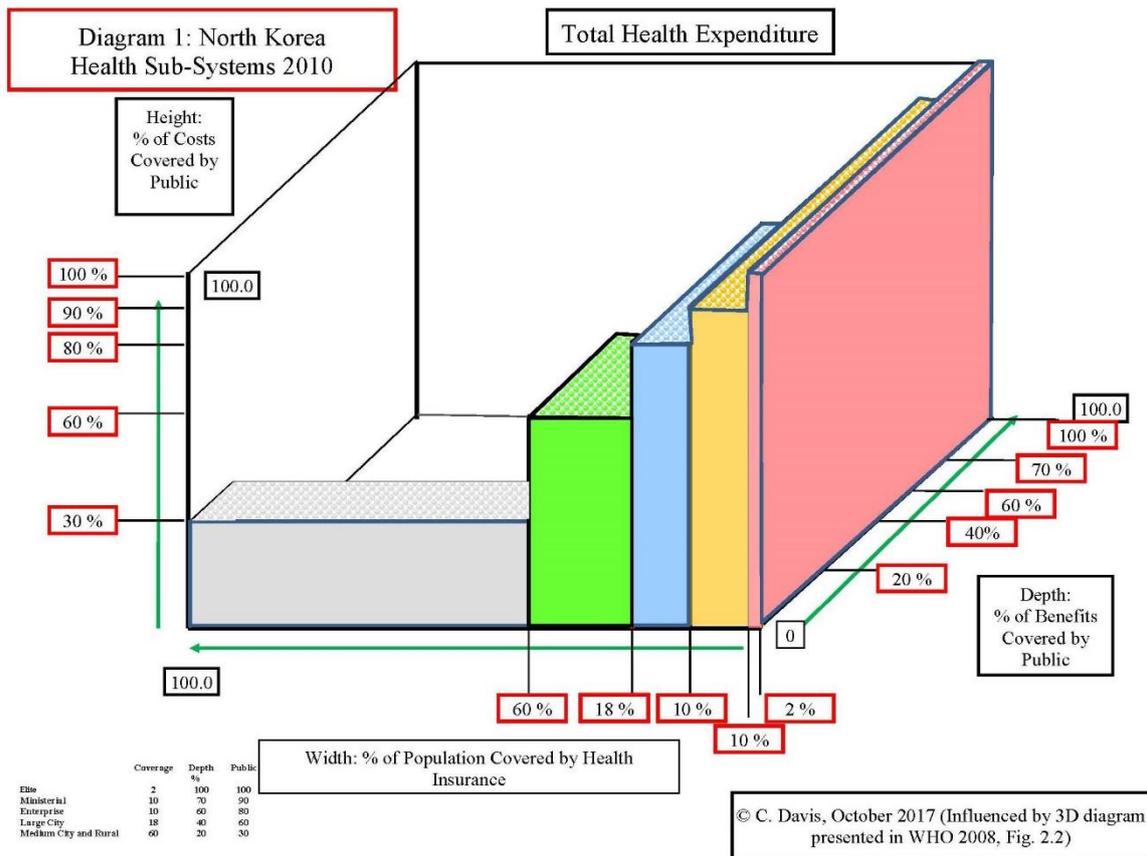


Material for a Fresh Sushi Meal,
Fish Market, Sokcho

Some important differences (as of 2014) of relevance to my talk were: (1) Population (Number): SK 49.0 million versus NK 24.8 million; (2) Population (Share of Elderly 65 and older): SK 12.3% and NK 9.5%; (3) Economy (GDP per Capita): SK \$33,200 versus NK \$1,800; (4) Economy (Health Spending Per Capita): SK \$2,390 versus NK \$67; and (5) Health Outputs (Infant Mortality (deaths per 1000 live births)): SK 3.9 versus NK 24.5. The table shows that NK had more Doctors per 1000 (3.3) than SK (2.0), but this is typical for a command economy in which the number of doctors is a success indicator (like tons of cement). For example, in 1985 the USSR had 4.4 doctors per 1000 compared to 1.5 for the UK, but the latter had superior indicators in quality and efficiency of medical care and substantially better health outputs.

The next section of my talks covered comparison of economic systems, features of command economies, experiences with economic transition, and three alternative scenarios for economic developments in North Korea: (1) China model: Gradual reform of the economy starting with agriculture, economic recovery, maintenance of a variant of the existing political system; (2) Russia/East Europe model: Move to a market economy and democratic political system with gradual convergence to and integration with South Korea; and (3) German model: Sudden peaceful regime change resulting in abrupt unification with South Korea. Estimates of the costs of unification (from Kim 2017 in footnote 4) were reviewed.

I then compared health production processes in command economies, including household health-related behaviours (e.g. alcohol and tobacco consumption), the organisation of health services and performance of medical systems (low priority institutions in a shortage economy), and developments in mortality. Health crises during early transition (Russia and most East European countries) and eventual stabilisations of health situations were assessed next. The problem of growing inequalities in health in Russia and China during transition/reform was analysed using past research on sub-systems of medical care in socialist economies combined with a WHO 3D diagram of coverage, depth of benefits, and source of health finance. A rough estimate was made of the distribution of medical care in North Korea, which is shown below in Diagram 1:



This talk concluded by considering likely developments in the health sector in NK in the three scenarios concerning economic change. It was pointed out that population ageing and advances in medical technologies will increase pressure to raise real health spending in NK in the years ahead. Overall, the transformation of the health sector of NK, involving the raising of the quality and effectiveness of medical care, will be a complicated and expensive process and will pose one of the major challenges of unification.

The second most requested talk was *Morbidity Icebergs (Reported and Hidden Illness) in the USSR and Russian Federation: Lessons for South and North Korea*.⁷ The talk began with a review of the SK and NK health sectors, lessons from previous economic transitions, and the international comparison of health production. It then introduced the concept of morbidity icebergs (see Diagram 2 below) and explained Soviet/Russian methodology for estimating them.

⁷ This talk was based on an article by C. Davis about morbidity icebergs in the USSR and Russia that is being revised for publication in a journal. It was delivered at the following institutions: 14/10 Korea Academy of Family Medicine, Fall Symposium, Grand Hilton Seoul; 17/10 Center for Health and Unification, Yonsei University; and 25/10 Department of Healthcare and Medicine for a Unified Korea Symposium, Korea University.

Diagram 2: Morbidity Icebergs in Epidemiological Literature

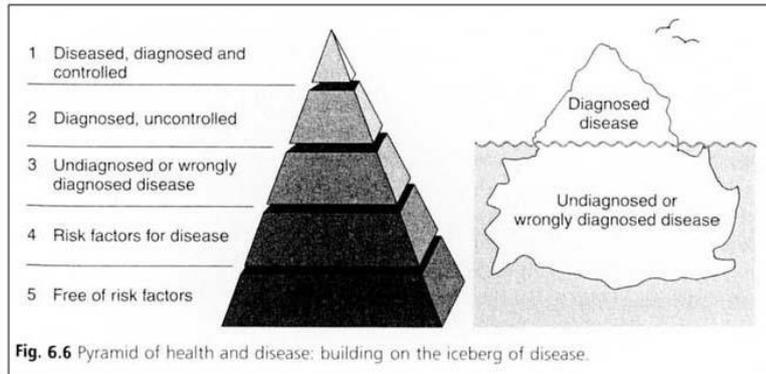
Concepts of Epidemiology

Integrating the ideas, theories, principles and methods of epidemiology

SECOND EDITION

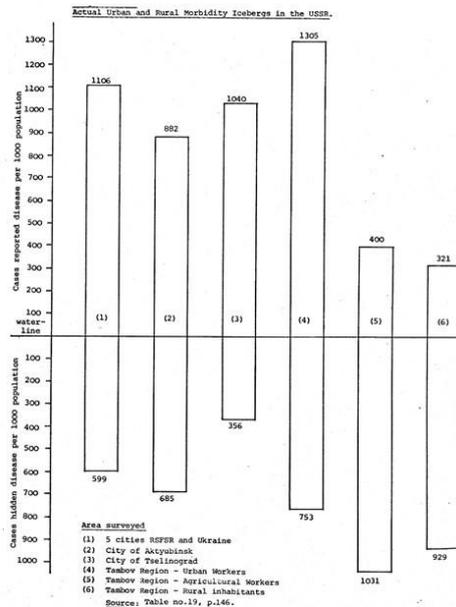
Raj S. Bhopal, CBE, MD, DSc (hon), MPH, BSc (hon), MBChB, FPH, FRCPEI
 Alexander Bruce and John Usher Professor of Public Health and
 Honorary Consultant in Public Health, NHS Lothian Board
 (Head of the Division of Community Health Sciences, 2000-2003)
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I then presented the findings of the detailed Soviet/Russian statistical studies (see Diagram 3 below). Soviet/Russian analysts calculated not only aggregate morbidity icebergs (cases of reported and hidden illness per 1000 population), but also specific detailed ones for disease classes (e.g. more hidden illness for cancer than for trauma), gender (Russian men more reluctant to report illness than women), and age (minimal hidden illness for infants and children, substantial for the elderly). In my opinion, it is likely that morbidity icebergs in North Korea are similar to those in rural areas in the USSR in the 1970s (e.g. substantial hidden illness).

Diagram 3: Six Morbidity Icebergs in the USSR



Prepared by C. Davis, 1980



Sunrise over East Sea,
Sokcho



Buddha, Naksansa Temple,
Near Sokcho

Following this I argued that the health crisis of the 1990s in Russia contributed both to growing illness and increases in its hidden components. It is possible that this could happen in North Korea during a future economic transition involving a “transformational recession”. During the economic recovery in Russia over 2000-2013, health conditions and behaviours of the population became better, real health spending rose, the medical system improved, and mortality rates declined. However, reported illness increased. My hypothesis is that this was due to more previously hidden illness being reported to medical facilities. The final sections of my talk assessed the impacts of health inequalities on morbidity icebergs and health prospects in the three unification scenarios.

I presented a third health-related talk entitled *Motivation of Doctors in the UK and Russia, 2000-2020: Concepts, Doctors’ Perceptions, and Evidence*.⁸ The talk combined a review of the structure and findings of the article with discussions of the health situation in North Korea and the different features of doctors in South Korea and North Korea.

I also gave a talk on the more general topic of *Lessons from Economic Transition in Russia and East Europe for the Reunification of Korea*.⁹ My presentation contained the usual components mentioned above (command and transition economies, unification scenarios, reform of health sectors), but contained two new issues. The first was reform of socialist industrial enterprises during transition, which involves moving from sellers’ markets to buyers’ markets, hardening of budget constraints, changes in ownership (privatization), and restructuring. The second was the transformation of the defense sector (military-industrial complex) in the reform period. The experience of Russia following the collapse of the USSR indicates that this involves substantial reductions in defense expenditure, contraction and reforms of the armed forces, major cuts in defense industry production, and conversion of military factories and military R&D institutions to civilian activities. This will be another major challenge of reform in North Korea and unification.

⁸ The talk was based on a draft of a new journal article with the title above that was co-authored with two Russian health economists, Sergey Shishkin and Alexandr Temnitsky. The venue was the Graduate School of Cancer Science and Policy at the Korea National Cancer Center and the audience was a class of South Korean and international postgraduate students working on health policies.

⁹ This talk was given at the Korea National Defense University. The audience was made up primarily of junior military officers studying in a two-year masters’ program.



DMZ and North Korea: Map and Reality, Goseong Province



Author with DMZ and North Korea in Background, Goseong Province

At the end of the first week in South Korea my wife (Antonia) and I made a two-day trip eastward from Seoul to Mt. Seoraksan National Park (temples, mountains, colorful autumn leaves) and to the town of Sokcho on the East Sea (fish market, temple). We then travelled upward along the coast to the obscure northern-most Unification Observatory on the Demilitarized Zone (DMZ), which is located in an attractive and tranquil seaside area in Goseong province. During my final week I was pleased to have an opportunity to meet the UK Ambassador, Charles Hay, in his residence to discuss domestic and international aspects of the current situations in South Korea and North Korea.

Overall, I found this research and lecturing visit to be interesting in terms of what I learned about South Korea and North Korea and enjoyable. I would be pleased to return to South Korea because it is a country that values my knowledge about command and transition economies due to the fact that it relates to the present (North Korea) and the future (reform and unification), not just the past (as in Europe).

Christopher Mark Davis has been teaching and carrying out research at the University of Oxford since 1991 in his post of *Reader in Command and Transition Economies* (Emeritus, Department of Economics and SIAS). Prof. Davis currently is *Senior Research Fellow* in REES/SIAS, *Professorial Research Fellow* at the Oxford Institute of Population Ageing, and *Head of the Research Laboratory on the Economics of Health and Health Reform* at the Russian Presidential Academy of the National Economy and Public Administration.