Report to the CSDH from the SDH ASIA network

With rejoinder to the Nordic welfare regime experience
Thoughts on the transferability of NEWS report to the Asian context

I. Asian Network on SDH Research (SDH_ASIA network)

East Asian countries have achieved a rapid improvement in population health status throughout the past half century, and are facing today a new challenge due to a rapid pace of population ageing, urbanization, and emerging diseases such as AIDS. These countries also have enjoyed a rapid economic growth, yet have various types of social welfare policy on redistribution, education, family support, and health care provision, and subsequent variation in the level of achievement in population health (e.g. infant mortality).

East Asian countries are often characterized by unique culture and norms such as collectivism tendency, Confucianism norms, etc., in contrast to the European cultures where individuals are regarded as the central social agency. However, each country has a unique culture, history, and social norms on gender roles, social function of family systems, and the relationship between individuals and society, which would be reflected in the structure of government, politics, and the mode of policy making.

It is thus expected that we could purify some policy lessons on population health and SDH through detailed comparative analysis among Asian experiences, rather than gross comparison between “Western” and “Eastern” countries. However, the scientific knowledge and policy experiences are not shared among those neighborhood countries, mainly due to language barriers, and each relies on the reference from European countries and the U.S. through scientific documentation written in English. The CSDH has been organized to establish the significance of SDH in the health policy making in developing as well as developed countries. The Commission purports to bring “equity” issue back to the international health policy agenda, and the knowledge hubs are organized to collect, disseminate, and share currently available scientific knowledge on the SDH. However, available sources of scientific evidence mainly rely on existing published data from the U.S., U.K, and the Nordic countries because few published studies from other regions (esp. Asian countries) are available due to data accessibility, or if exists, documentation in domestic non-English sources. Consequently, currently available evidence may not be fully tailored to help policy makers in non-English speaking countries meet their domestic needs. A region-specific knowledge network should be established to make local domestic research, including unpublished, non-English, and on-going ones, visible to a broader audience of health policy makers and researchers, and help them benchmark how SDH has been conceptualized/treated/studied in their own country and their neighborhood countries that may or may not share some political/historical/cultural background.

The network of Asian researchers who are concerned with SDH and subsequent health outcomes was established in the 2006 autumn from the background above mentioned. The purpose is to prepare a research infrastructure for SDH researchers in the Asian region to help them locate necessary resources, information, personnel, and above all, newly emerging ideas/concepts, hypothesis, and theories that are relevant and contextualized in Asian historical, socio-economic, cultural, and health system background. To put in simple words, it aims at enhancing communication and mutual understanding among SDH researchers in the Asia. This is a project funded by the Division of International Collaboration, the Ministry of Health, Labor, and Welfare, Japan for fiscal years of 2006-2007.

The participant researchers were first asked to provide a short review on the current SDH research topic and policy movement in each country, including non-English, non-peer-reviewed, on-going, and even anecdotal ones. All those materials are collected and shared with participating members. An interim meeting which was held on October 23, 2006, gathered selected members from participating countries. With supervision from Prof. Sir Michael Marmot and Prof. Ichiro Kawachi in Harvard School of Public Health, following participants joined in-depth discussion on concept, themes, and policies in common or specific to countries, and potential themes/concepts that may deserve a close look in Asian settings.

<Members of the SDH_ASIA network>
• Prof. Kim Chang-yup from Seoul National University School of Public Health and Deputy Director, Seoul Institute of Aging, Seoul National University.
• Prof. Tung-ling Chiang from Department of Health Policy and Management, School of Public Health, Taiwan University
• Prof. Ly-yun Chang from Institute of Sociology (Academia Sinica)
• Dr. suphot Dendoung from the Faculty of Social Sciences and Humanities, Mahidol University, Thailand
• Dr. Charles Surjadi, former Chairperson and Advisory Board of Indonesian Epidemiology Network, and the
II. SDH and health; lessons and future agenda in Asian context

The first round of Tokyo meeting has mainly focused upon overtime trends of major health statistics and patterns of disparities on health across different socioeconomic groups in different countries. We all have obtained a preliminary understanding about the health status of the population in different countries. For certain region or country, urgent issues are with the improvement of sanitary system, drinking water, and elementary education, while for others, health issues can be very different.

A. Report from 4 Asian countries

Thailand case;  
Thailand has enjoyed rich natural resources including abundant crops, and escaped serious damage due to colonization and the world wars in its modern history. Thailand also experienced economic miracle as other countries in the East Asia have achieved. Thailand has had public medical insurance scheme and spent more money on health care, compared to other poorer Asian regions. Although Thailand should have deserved better national health status with the historical and economic background above, its actual status is behind the countries such as Sri Lanka. Health problems such as infectious diseases are still prevalent; chronic illness began to take lead; furthermore emerging or re-emerging diseases such as malaria, bird flu and HIV/AIDS became serious health problems.

Dendoung at Mahidol University, Thailand, argued that social injustice such as economic exploitation, gender harassment, and oppression of minority ethnicity may be culprit to limited improvement in health status of Thai people despite of natural and historical advantage of the country. In his report to the SDH_Asian Network, he critically analyzed that health care system of Thailand, increasingly shared by private sectors, relies on the medical paradigm of determinants of health, and fails to adequately counter the influence of socio-economic inequality on population health. He also argued that laissez-faire privatization in market economy and oppression of subcontractor workers (e.g. immigrant workers) for economic efficiency seriously deprives of worker’s health, and unfair gender relationship leads to sexual abuse and subsequent HIV epidemic among susceptible layers of people. Consequently, he argued that changing the paradigm from prevailing medico-biological one to the socio-ecological one, and bringing social justice back in the public health agenda is necessary to improve the health of Thai people.

Mainland China Case  
Economic reform and development since late 80’s have changed people’s life dramatically in Mainland China. As national living standard improved, people’s health status has also improved overall. However, the imbalance and unfairness of economic growth across regions and socio-economic positions, unequal access to health care service, and consequent health inequality between urban and rural areas becomes serious social issues. Rural population (0.75 billion) is larger than urban (0.55 billion).

According to the report from Wang at Beijing University, per capita annual income in urban areas is over 10,000 RMB, and in rural areas this number reaches only 4,000 RMB in 2004. The health expenditure in rural areas is much less than that in urban; 58% rural population uses just 36% health service. There can be found a remarkable difference in health status between economically developed areas (the east China) and developing areas (the west China). Precisely, the life expectancy in the east China is 8 years longer than that in the west areas. Unbalanced economic growth also incurred other social problems such as population moving and rapid urbanization, environmental pollution, unhealthy lifestyle, working stress, and increase of suicide cases, etc.
Taiwan Case; Economic and Health “Tiger” in the East Asia

Besides being an “economic miracle”, Taiwan has also achieved a “health miracle”. Since the 1950s, mortality has declined remarkably among all age groups, especially significant in infant mortality, which decreased from 45‰ in 1952 to 5‰ in 2005. Accordingly, life expectancy at birth in Taiwan has increased for males and females, respectively, from 57 and 61 years in 1952 to 74 and 80 years in 2005. Nevertheless, different socioeconomic groups have not equally shared such health achievement. For instance, the age-adjusted mortality rate in 2005 was 3.9‰ in the capital city – Taipei, but went up to 7.5‰ in Taitung, one of the poorest counties in Taiwan. As Chiang at Taiwan University and Chang at the Institute of Sociology argue, the health disparities in Taiwan have become widening as the average number of population health showed improvement.

In 1995, a compulsory national health insurance has started. The public insurance can contribute to the reduction of health inequalities through improving the access to health care among lower socioeconomic groups, and preventing them from catastrophic health spending and consequent trap in the vicious cycle of poverty. Although the overall pace of decline in premature mortality has accelerated since the implementation of the universal health insurance, suggesting its health-protecting effect, yet, the socioeconomic disparities of health in Taiwan seem to have not been reduced. Utilization of high tech medical procedures such as CABG shows a positive relationship with educational attainment levels. Obviously, the universal health insurance is an important but not sufficient strategy for the reduction of health inequalities. The fundamental causes of health inequalities such as income, work and unemployment, education, and socioeconomic exposure in early life are the target of new public health policy, as following evidences suggest;

・ Pearson correlation coefficient between regional mortality and average household disposable household income in Taiwan reached -0.63 in 1976 and -0.60 in 1995.

・ The association between regional median share of income and under-five child mortality, adjusted for father’s educational attainment, had shifted from non-significant in the 1980 birth cohort to highly significant in the 2000 birth cohort.

・ Job insecurity was more prevalent among workers with lower education, in blue-collar and construction workers, and workers of smaller companies. Regression analyses showed that job insecurity was significantly associated with poor health, even with adjustment of age, job control, job demands, and work place social support.

・ Receiving better education is highly valued in Taiwan. Currently, more than 30% of population who are aged 15 and over received (college-level or university-level) higher education. The results from the national health interview surveys repeatedly indicated that male adults with low education had a two or three times higher prevalence of smoking than those with higher education. Moreover, the inverse educational gradient of mortality exists for different age, sex and area deprivation groups.

Japan Case;

The life expectancy (LE) as a whole country has made a dramatic improvement over the past half century in this country, e.g. from 58 years in 1950 to 78.6 in 2004 in male case. The improvement of the LE until the 70’s was mainly attributed to the decrease in infant mortality, which began to be observed already in the early 20’s, the time when the system of vital statistics was established to cover full population. The infant mortality was decreased since then possibly thanks to then government introduction of hygiene protection and mass health education in pre-war time. It was further improved in the 50’s and 60’s through non-selective provision of prenatal care and maternal education in regional public health center. It may also be underscored by post-war economic boom and consequent improvement in material living standard.

LE increase in the post-70’s, the time of economic stagnation, was mainly attributed to decreased elderly mortality, esp. dramatic decrease of death due to stroke. Several factors may contribute to this; national medical care insurance for all the citizen since 1961, public program for elderly medical care since late 1970 that allowed the elderly to access medical care with fewer copayment, public health activities in regional communities for hypertension screening and dietary education to reduce salt intake, and improved housing conditions and supply of fresh food through improved region economy and motorization. Since marginal improvement of elderly longevity continued even under the time of economic depression in 90’s, however, contributors other than material standards of living and accessibility to health care should be sought.

Recent international opinion survey conducted by the Cabinet Office revealed that the proportion of those who answered “no anxiety for future” was highest among Japanese elderly compared to those in the US, France, Germany, and Korea, (The Cabinet Office, 2006) Gini index of household income as a whole increases in the past decades, yet, income disparity among household headed by those over 65 has been dramatically
reduced through the 90’s, thanks to social insurance scheme for health care, long-term care and pension, and tax exemption in favour of elderly households.

The alleviation of socioeconomic disparity among the elderly was achieved, however, at the cost of leaving similar social policy for younger generation somewhat behind. A recent national debate on social inequality focuses on the widening disparity among young generation in their 20’s and 30’s. Besides, even with the world longest longevity and health status in macro level, the cross-sectional disparity in health status remains across this country, in terms of region, socio-economic status, and other social conditions. It would be awaited to see if this cross-sectional disparity of health status is widening, narrowing, or kept steady, since the gradient quite recently began to be recognized. These observations strongly suggest that the drivers of change in the mean of population health are quite distinctive from those of change in the disparity among the population (Marmot, 2004). The determinants of this disparity and possible causal mechanism are still open and need rigorous research in this country.

B. Lessons from Asian comparative case study

Macro-economic research has identified the social determinants of economic growth in Japan and other successful Asian economy such as non-selective access to primary education, economic freedom and democratic environment, ethnic homogeneity, and consequent political stability, and less frequent policy reverse. (Snowdon and Vane, 2005) Our comparative case study suggests that free primary education is also a prerequisite for subsequent health education and maternal/prenatal care to improve population health. Moreover, Thai case specifically suggests that just social system and political stability are also important social determinants of population health.

Our case study confirms that improvement of material standards of living conditions, public provision of health care insurance, and other social welfare policy did contribute to health improvement on average. However, these factors may not be enough to reduce the health disparity among different classes, regions, genders, and other layers of socio-economic conditions. Economic growth under global environment may increase socioeconomic disparity and consequent health disparity among the population, as suggested in China case. Countermeasure against such inequality is warranted for the improvement of population health. Lessons from Taiwan and Japanese cases exactly suggest that non-selective redistribution policy in favour of the elderly through medical insurance, tax exemption, and/or pension might be beneficial for the improved longevity of the targeted layer of population in these regions. On the other hand, younger generations who were left behind in such non-selective welfare policy have become at risk of health disparity, and require urgent treatment.

C. Social Determinants of Health in the Asian View; Additional research and policy agenda

Chiang from the Institute of Sociology pointed out that the current research/policy on SDH takes the individual as a social agency and a basic unit of analysis. She argued that Asian culture takes family system as a basic unit of social organization, and somewhat missing in the current framework of SDH research/policy based on the Western culture with individualism background. Consequently, the existing theory/models of SDH may not adequately tap into the mechanisms that generate persistent health inequality among social, economic, and ethnic groups in the Asian society. To overcome this situation, following were proposed for further action plan for SDH ASIA network:

1) To investigate the patterns of disparities on health across social, economic, and ethnic groups within/across Asian countries. It should be sought to compile health statistics in a comparative format, for the purpose of problem identification.

2) To bring back and re-read in the contexts of family system, the issues of gender and generation relation, urbanization, and working conditions in order to investigate how disparities on health among social, economic, and ethnic groups are re-produced over time in a society; We need to pay more attention to how socio-economic conditions and demographic structures of family and household affect individual health in generations.

3) To focus on the recursive relationship between socio-economic conditions and health outcomes in order to explore whether health conditions of individual and his/her family in turn constrain his/her own and family’s life chance of socioeconomic mobility and vice versa.

4) For understanding the mechanisms of health and social inequality above mentioned, multi-level and panel design of research with comprehensive measurement of health/economic/social/demographic characteristics of the individual and his/her household are essential to overcome endogenous problems of social and health selection.

We understand that data for this type of research may not be currently fully available in the East Asian countries. We could start with making best use of the existing data sets and develop similar analytic framework in order to
arrive comparative research. Besides, we should start to take hard efforts to establish cohort data to provide a comprehensive picture of individuals and their family in the society by obtaining measurement on social, demographic, and economic conditions of household, labour force participation and working conditions, community characteristics under a comparative framework across countries/regions.

In Taiwan, such an effort has already begun; an interdisciplinary project on health inequality started since August, 2006. This project is a joint effort among sociologists, economists, and epidemiologist. The proposal has four distinct features: (1) the unit of analysis will be individual person, household, working environment, community, and health organizations; (2) the effect of ill health on the financial situations and health behaviour; (3) longitudinal panel data in health utilization and labour force participation; and (4) national representative samples in Taiwan. In this project, the investigators also plan to link their cohort data with existing public data such as Taiwan Family Income and Expenditure Survey, Manpower Utilization Survey, and the National Health Insurance Data to construct a pseudo-panel for individuals and household, and are currently under the process to obtain official approval of public data use.

In Japan, the Japanese version of Health and Retirement Survey has been launched as the international collaboration with Health and Retirement Survey in the U.S., Survey of Health, Assets, and Retirement in Europe, and England Longitudinal Survey on Ageing in the U.K. In this project, a representative sample of residents in age 55-74 is taken from selected municipals with a variety of size, urbanization, and economic conditions, and a comprehensive measurement of subjective/objective health status, dietary and other lifestyle habits, labour participation, and household economic status are included with detailed information of family/household composition and relationship among family members. In this project, official claim data of national medical insurance and long-term care insurance are also provided from municipal authorities and will be merged to obtained interview data. Sister cohort studies are ongoing in Korea and Thai, and under consideration in Mainland China for international comparative research.

III. Activities of the NEWS
Since 2005, a multi-country project, entitled ‘The Nordic Experience – Welfare States and Public Health’ (NEWS) has been undertaken as a contribution to the Commission on Social Determinants of Health (CSDH) under the leadership from the Center for Health Equity Studies (CHESS), Stockholm University/Karolinska Institutet. The NEWS Project attempts to bring together ‘historical and sociological knowledge on welfare state development and cross-national variation’ across Nordic countries, underscored by ‘public health knowledge on social determinants of health, population health and health inequalities’. Their final report was published at the UCL International Institute for Society and Health, London on Oct 5th, 2007, making the case for the relationship between social policies and core health outcomes (e.g. life expectancy, child mortality), and addressed the transferability of their findings for OECD, middle- and low-income countries.

Main themes addressed in the report are:
- Universalism characterizes the Nordic welfare regime, contrast to selected and means-tested policies in other OECD countries.
- Universal social policies are likely to affect public health status.
- The Nordic countries have been successful in reducing poverty and enhancing equality both in opportunity and outcomes among social class and other social stratifications. The analysis specifically focuses on;
  - Pension systems and health of elderly people
  - Family policy institutions and infant mortality

VI. Key findings in the NEWS report, and rejoinder from the Asian Network on its applicability/transferability to the Asian context:
- Universalism is a key feature of Nordic welfare policies; also characterized by a broad scope of public service, service provision by public sector at local level, and high taxation and generous benefit provision.
  -> In Japanese case, for example, welfare policies are basically means-tested, and are implemented by local government offices, following the laws and protocols set by the central government. Medical care, long-term care, and other public health services (e.g. prenatal care and vaccination for children) are provided in universal manner. Medical and long-term care insurance is a mandatory, non-selective, national public system, but actual services are provided by private-public mix. Public health services are provided by the local government under the national protocol set by the central government. Japanese taxation rate is somewhat lower among OECD countries; its national burden rate is under 40%, comparable to that of U.S.
- Nordic redistribution system may result in the lowest poverty rates in international comparison. Moreover, the prevalence of relative poverty is especially low among socially vulnerable group in the Nordic countries, e.g. single parenthood and elderly household.

  > Universal social policy is not the main frame of welfare service provision (e.g. livelihood assistance) in East Asian countries. However, the non-selective provision of public pension and national medical care insurance in Japan and Taiwan can be taken as a universal policy in favour of the elderly. Then, Nordic lessons on universal social policy and public health may well explain the elderly longevity in Japan and Taiwan.

- Nordic lessons to reduce infant mortality suggests that its early establishment of vital statistics report system was a predisposing factor that allowed the diagnosis and evaluation of public health policies; “policy formation with knowledge based on valid data”.

  > This holds also true in East Asian countries and assumingly in any country. It is indeed a predisposing factor. In Japanese case, when vital statistics were established and became available in 1920’s, infant mortality was still around 200. Since establishment of vital statistics report, infant mortality began decrease until today, presumably driven by other factors such as improved economic standards in 50’s, maternal registry/education and free prenatal care in 50-60’s, and prevailing hospital delivery (60’s) and introduction of high-tech neonatal care (80’s-90’s).

- The implementation of public health policies were conducted by the harmonized collaboration of central government and local-level implementers, e.g. NGOs.

  > In many of the East Asian countries, government structure is highly centralized and the central government agency has a dominant influence on local agency, by setting standards and protocols for municipal government agency to implement the practice under the protocols. Traditionally, the public sector has been expected as the agency for public service, and private sectors (e.g. NGO) are allowed limited role in the provision of public service. The privatization is recently augmented, but often under the neo-liberal economy environments that seek for production efficiency.

- Welfare state characteristics do make a difference for public health. Low poverty rate and narrowed income distribution supported by universal social policies may bring beneficial impact onto public health in the Nordic countries. NEWS report found that relative inequality across social groups are not smaller in the Nordic countries compared to other European countries, though in the absolute terms, mortality among manual workers in Norway and Sweden is lower than that in other OECD countries.

- Generous basic security pensions are linked to better health among 65+ among OECD countries, though the increase in life expectancy at 65 was somewhat limited in Nordic countries.

  > In 80’s and 90’s, when Japanese life expectancy even further increased due to the longevity among 65+, income disparity among those 65+ was dramatically improved thanks to re-distributional effects by universal medical care insurance, pension, and tax exemption policy for the elderly. In Taiwan where elderly longevity is also witnessed, Chiang reported that the public medical insurance system facilitated redistribution among the vulnerable elderly layer. Thus, our Asian experiences may suggest that the better health among 65+ was at least partly made possible by introduction of comprehensive re-distributional policy targeting the elderly layer.

- Generous dual earner family support, rather than GDP level, is linked to lower infant mortality among today’s OECD countries.

  > In Japan, dual earner family is less likely to enjoy child-support allowance due to their income levels above means-test criteria. Dual earner family also does not enjoy tax deduction that is in favor for house-wives without income. Japan does have the lowest infant mortality among OECD countries without generous dual earner support, which is contradictory to NEWS findings. There should be other factors working in Japanese low infant mortality, though a lack of dual earner support and other benefits is supposed to be culprit to recently decreasing fertility rate in this country.

  In Japanese case, provision of basic prenatal care, mandatory primary education, monthly allowance for child-bearing household, free medical care for children under 3 are provided by public sector at local municipal level in universal manner without means test. These may be related to lower infant mortality in this country, and make the case along with the Nordic experiences. Chiang et al. found in their international comparative study that infant mortality and Under-5 child mortality has a
significant positive relationship with the level of income inequality in the countries, again makes another case compatible with the Nordic findings.

- Although the NEWS did not mention the public health impact by non-selective national medical insurance system, it seems to contribute a significant part of public health improvement on average in Taiwan and Japanese cases. However, it may not be enough to eradicate health inequality across the different layers of population, e.g. regions, the level of wealth, gender, and ethnicity.

Conclusions;
The following are obtained from the Asian case studies and reference to the Nordic experiences;
1) The establishment of vital statistics report system is a pre-requisite for social/epidemiological diagnosis to reduce infant mortality and improve public health.
2) It seems universal that primary education provides a basis for economic growth as human capital investment and also a basis for human empowerment to reduce infant mortality through improving material conditions and people’s capability of health protection/promotion.
3) Economic growth contributes to a certain degree to the improvement of population health on average through the improvement of material conditions, though it is not enough to narrow health and social inequality across different layers of population, which tends to be widened once the economic growth reaches a certain level.
4) Justice and fairness in social organization and politics make another pivotal condition for the improvement of population health in addition to material conditions.
5) Universal social policies with re-distributional function (e.g. public medical insurance, pension, allowance, and support) seem to play an important role to improve the health of targeted layers of population.
6) Compared to Nordic and European cases, the structure and cultural significance of “family” may have a distinctive implication on health policy in Asian countries.