National NCDI Poverty Commission/Group Knowledge Exchange #5
14 June 2017


The Exchange was organized into three presentation and discussion segments. First, Dr. Bhagawan Koirala, Co-Chair of the Nepal NCDI Poverty Commission, presented on the Nepal Commission’s research progress and discussed innovative delivery models/policies the Nepalese government is using to address NCDIs of poverty. Matthew Coates of the Program in Global NCDs and Social Change at Harvard Medical School then discussed uses for in-country HDSS site data and shared preliminary results examining the relationship between verbal autopsy from the INDEPTH Network and multi-dimensional socioeconomic status (SES) data. Finally, Dr. David Watkins of University of Washington and the Disease Control Priorities Network (DCP) presented uses for the DCP’s third disease control priorities evidence publication, DCP-3, to address the NCDIs of Poverty.

II. Knowledge Exchange #5 Agenda:

Moderators
Neil Gupta, Clinical Director, NCD Synergies, Partners In Health
Miriam Schneidman, Lead Health Specialist, World Bank

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<tr>
<th>Time</th>
<th>Session</th>
<th>Facilitator or speaker</th>
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<td>7:45 – 8:00</td>
<td>Progress and findings of the Nepal NCDI Poverty Commission</td>
<td>Bhagawan Koirala, Co-Chair, Nepal NCDI Poverty Commission</td>
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<td>8:00 – 8:15</td>
<td>Discussion and questions</td>
<td>Neil Gupta</td>
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<td>8:15 – 8:30</td>
<td>Disease Control Priorities 3: Identifying, prioritizing, and costing interventions to address the NCDIs of Poverty</td>
<td>David Watkins, University of Washington; Disease Control Priorities Network</td>
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<td>8:30 – 8:45</td>
<td>Discussion and questions</td>
<td>Neil Gupta</td>
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<td>8:45 – 9:00</td>
<td>Using HDSS data to examine causes of death by poverty</td>
<td>Matthew Coates, Program in Global NCDs and Social Change, Harvard Medical School</td>
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<td>9:00 – 9:15</td>
<td>Discussion and questions</td>
<td>Neil Gupta</td>
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<td>9:20 – 9:30</td>
<td>Closing remarks and opportunities for ongoing exchange</td>
<td>Gene Bukhman, Co-Chair, Lancet NCDI Poverty Commission; Director, Program in Global NCDs and Social Change, Harvard Medical School</td>
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III. Summary of Presentations and Discussion:

Welcome and Introduction
Dr. Neil Gupta, Clinical Director, NCD Synergies, Partners In Health
Neil Gupta began the Exchange with introductions of participants from the National NCDI Poverty Commissions/Groups and a recap of previous Knowledge Exchanges. Miriam Schneidman then introduced participants from the World Bank who joined the Exchange via WebEx from China, Kenya, Mozambique, and Tanzania. Neil reviewed the Exchange’s agenda and then introduced the first speaker, Dr. Bhagawan Koirala, Co-Chair of the Nepal NCDI Poverty Commission.

Progress and findings of the Nepal NCDI Poverty Commission
Dr. Bhagawan Koirala, Co-Chair, Nepal NCDI Poverty Commission

Dr. Koirala began by sharing research methods used by the Nepal NCDI Poverty Commission to establish the country’s baseline burden of NCDIs. The Commission examined the 2015 Global Burden of Disease study (GBD) and multi-dimensional SES data which revealed the biggest contributors to the NCDI burden in Nepal to be (1) cardiovascular disease, (2) chronic respiratory disease, (3) forces of nature and war, (4) musculoskeletal disorders, (5) diabetes, urogenital, blood and endocrine disorders, and (6) mental and substance abuse disorders. The Commission then established a list of priority conditions to take into account when developing intervention packages and policies by applying disease-specific disability-adjusted life year (DALY) rates from GBD data to disease impoverishment, average cost/out-of-pocket (OOP) expenditure, and prevalence. Thus far the government of Nepal has implemented a spectrum of impactful inter-sectoral NCDI interventions including:

- National health policy (2015) embracing Universal Health Coverage (UHC) and NCDI prevention and control;
- Multi-sectoral Action Plan for the Prevention and Control of Noncommunicable Diseases (2014-2020);
- National multi-sectoral NCD committee chaired by the Chief Secretary of the Ministry of Health;
- National mental health policy;
- Alcohol and tobacco control initiatives;
- Road safety action plan (2011-2020);
- Development of a plan to tax sugary beverages;

Nepal is also in the process of establishing interventions and policies to address the NCDIs of poverty from within the health sector including:

- Package of Essential Non-communicable (PEN) interventions which will expand to all districts by 2020;
- Urban Health Promotion Centers;
- Full or partial government subsidies covering targeted NCD conditions;
- Senior citizen services;
- Health insurance;
Dr. Koirala continued with Nepal Commission findings demonstrating the impact injuries have had on pushing citizens below the poverty line, as depicted on the table to the right. Dr. Koirala then shared a video that reinforced the connection between NCDIs and poverty. In the piece, produced by the Voices of NCDI Poverty project, a father talks about the sacrifices he and his family have made in order to afford chemotherapy for his son with cancer.

The presentation concluded with a review of the Nepal Commission’s plans moving forward - to support the expansion of the PEN package, development of a road safety plan, establishment of vital registration systems capturing mortality data, and implementation of registries to better capture the true burden of NCDIs.

Following the presentation, participants discussed the challenges to establishing a national health insurance plan. Dr. Koirala talked through Nepal’s growing pilot program, which is supported by household premiums and a government initiative. He noted that it will take committed lobbying to motivate the government to expand the pilot and supply universal financial risk protection for those unable to pay for treatments.

Dr. Julie Makani, global Lancet NCDI Poverty Commissioner and Co-Chair of the Tanzania NCDI Poverty Commission, and Dr. Samuel Slewion, a Liberia NCDI Poverty Commissioner, then sparked discussion on disease registries and collection of verbal autopsy data. Miriam highlighted a potential source of collaboration - the World Bank's collaboration with the International Agency for Research on Cancer (IARC) and WHO’s work establishing and strengthening capacity of existing cancer registries in Tanzania.

Disease Control Priorities 3: Identifying, prioritizing, and costing interventions to address the NCDIs of Poverty
Dr. David Watkins, University of Washington; Disease Control Priorities Network

Dr. Watkins presented on applications of DCP-3, a systematic review tool that can be used to identify, prioritize, and cost interventions aimed at advancing UHC. DCP-3 methodology and recommendations are aligned with “progressive universalism,” the equitable realization of UHC achieved by initially focusing on the poorest populations. To achieve this, DCP-3 compiles “essential packages of care” lists of priority interventions based upon cost effectiveness, feasibility in LMICs, and ability to address significant disease burden. DCP-3 essential packages were developed by international experts and leaders in their fields using systematic reviews of economic evaluations, epidemiological studies, and clinical effectiveness studies.

Countries can use burden of disease data, essential packages, and generic recommendations as flexible guidelines to establish priorities and interventions that fit the context and limitations in their countries. To determine national packages, DCP-3 encourages the use of a decision matrix. Dr. Watkins and the NCDI Poverty Commission use a new strategy in which diseases are first ranked by cost effectiveness. Then a budget constraint threshold is established and interventions are either included or excluded based on health equity, financial risk protection, and logistical considerations.

Dr. Watkins also presented on the WHO’s “Making Fair Choices” pathway to UHC which provides additional policy support, technical advice for countries, and recommendations to help determine effective national health service packages. Making Fair Choices cites that to achieve UHC countries must
advance healthcare in three dimensions – priority services provided, population served, and reduction of patient out-of-pocket expenditure (OOP). This relationship is depicted in the UHC cube to the right. Dr. Watkins wrapped up by sharing a map summarizing steps to analyze and strengthen health systems (as shown on the right bottom).

Afterwards participants discussed common misconceptions that NCD interventions are not affordable. Dr. Watkins raised that fortunately, the WHO has started to prioritize more NCD interventions that are cost effective or cost saving. Participants also discussed how to determine an appropriate and effective budget constraint threshold in the face of competing government priorities. Gene Kwan, Co-Chair of the Haiti NCDI Poverty Commission raised a final question about techniques commissions can use when trying to adjust costs in local settings and with varying human resources costs. David recommended using costing tools such as the One Health Tool to adjust proportionately by country income.

Using HDSS data to examine causes of death by poverty
Matthew Coates, Program in Global NCDs and Social Change, Harvard Medical School

Matt Coates presented on the use of HDSS verbal autopsy and household socioeconomic status (SES) data in determining the relationship between causes of death and poverty status. Matt presented from Accra, Ghana where he was facilitating a Lancet NCDI Poverty Commission workshop with representatives from seven INDEPTH Network HDSS sites across sub-Saharan Africa and southeast Asia. Through this collaboration, researchers are compiling cause-specific mortality data and rates stratified with multidimensional socioeconomic (SES) factors with a focus on populations which comprise the poorest billion.

Matt reviewed methods used to calculate mortality rate and stratify by socioeconomic status. He then discussed challenges investigators have faced in ensuring the proper SES classification and harmonizing data across sites with varying verbal autopsy classifications and SES measures.
Preliminary findings from the workshop show a heavy burden of NCDs among participants in the poorest billion. Matt noted that while HDSS site data is not representative of the situation of the poor across every country, it can provide a more comprehensive look at a defined population than most other data sources and could be used by National Commissions/Groups to compliment existing ecological modeling and expert analysis.

In the following discussion, Dr. Julie Makani raised that the stratification of data by age might produce interesting results with regards to age patterns between the poor and non-poor. Matt agreed and will examine the data both age-standardized and age-stratified. Discussion concluded with a review of the 8 different multi-dimensional indicators the Commissions are using to define poverty.

Closing remarks and opportunities for ongoing exchange and collaboration
Dr. Gene Bukhman, Co-Chair, *Lancet* NCDI Poverty Commission; Director, Program in Global NCDs and Social Change, Harvard Medical School

Dr. Bukhman updated attendees on the progress of the global *Lancet* NCDI Poverty Commission. The Commission’s report will be completed by October 2017 and submitted for peer review in November 2017. Publication is scheduled for the first half of 2018 in time for the next UN High-Level Meeting on NCDs in 2018. He emphasized that the impressive work of the National Commissions/Groups has been very informative in the report drafting process. Dr. Bukhman concluded the exchange by thanking presenters, moderators, and discussants for their contributions.
### IV. Attendance

<table>
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<tr>
<th>Country</th>
<th>Attendees</th>
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| Afghanistan | **Palwasha Anwari**, Advisor, Canadian Embassy  
Najibullah Safi, General Director, General Directorate of Preventative Medicine, Ministry of Public Health |
| Ethiopia  | **Birouke Teferra**, Ministry of Health, Ethiopia  
Wubaye Walelgne, Technical Assistant, Ministry of Health |
| Haiti     | **Gene Kwan**, Policy Advisor, NCDs, Partners In Health (PIH)  
Densa Belony, Research Assistant, PIH  
René Domersant, Ministry of Public Health and Population  
Nancy Larco, executive director, Fondation Haitienne de Diabete et de Maladies Cardio-Vasculaires |
| India     | **Suresh Kunhi Mohammed**, Senior Health Specialist, World Bank  
Nobhojit Roy, Chief of Surgery at the BARC Hospital, Mumbai, India |
| Kenya     | **Zipporah Ali**, Executive Director, Kenya Hospices and Palliative Care Association  
Cyprian Kama, Head of Health Services, Christian Health Association of Kenya  
David Makumi, Chairman, Kenya Network of Cancer Organizations  
Emma Wanyonyi, Chief Executive Officer, International Institute for Legislative Affairs |
| Liberia   | Diana Culbertson, PIH  
Samuel Slewion, Commissioner, Liberia NCDI Poverty Commission |
| Malawi    | Katie Cundale, Research Fellow, PIH  
Beth Dunbar, Director of Monitoring and Evaluation, PIH, Malawi/Abwenzi Pa Za Umoyo  
Noel Kasomekera, Technical Advisor, NCD Synergies, PIH |
| Nepal     | Bhagawan Koirala, Professor & Chief Cardiac Surgeon, Tribhuvan University  
Biraj Karmacharya, Chief, Department of Community Programs, Dhulikhel Hospital  
Arjun Karki, Pulmonary/Critical Care, Grande International Hospital  
Shiva Raj Adhikari, Associate Professor of Health Economics, Tribhuvan University  
Anjani Kumar jha, Consultant & Head of Department of Radiation Oncology, BP Koirala Memorial Cancer Hospital  
SP Kalaunee, Director of Governance & Partnerships, Possible Health  
Abha Shrestha, Research Fellow, Kathmandu University Hospital  
Natalia Oli, Tribhuvan University, Kathmandu  
Abhinav Vaidya, Associate Professor, Kathmandu Medical University  
Jaya Kayastha, World Bank  
Dinesh Neupane, Commissioner, Nepal NCDI Poverty Commission  
Dan Schwarz, Chief Medical Officer, Possible Health |
| Rwanda    | Christian Ntizimira, Advisor, Lancet Commission - Global Access for Pain Control and Palliative Care |
| Tanzania                                                                 | Julie Makani, Lancet NCDI Poverty Commissioner; Associate Professor, Muhimbili University of Health and Allied Sciences  
|                                                                        | Mary Mayige, Principal Research Scientist, National Institute of Medical Research |
| Other participants – Lancet NCDI Poverty Commission and World Bank Headquarters | Gene Bukhman, Lancet NCDI Poverty Commission Co-Chair; Director, Program in Global NCDs and Social Change, Harvard Medical School (HMS); Director, NCD Synergies, PIH  
|                                                                        | Matthew Coates, Research Associate, Program in Global NCDs and Social Change, HMS  
|                                                                        | Ramesh Govindaraj, Lead Health Specialist, South Asia Human Development Department, World Bank Group  
|                                                                        | Andrew Marx, Program Manager, Program in Global NCDs and Social Change, HMS  
|                                                                        | Claire McDonell, Staff Assistant, Program in Global NCDs and Social Change, HMS  
|                                                                        | Amy McAughlin, Program Coordinator, NCD Synergies, PIH  
|                                                                        | Chris Noble, Program Coordinator, NCD Synergies, PIH  
|                                                                        | Maia Olsen, Program Manager, NCD Synergies  