International Partnerships for Improving Health and Reducing Poverty: Human Capital and Health Systems Status in Latin America

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Global Research Begins with Conversations Such as Those Happening Today in this Place

My goal is to jump start the conversation
Global Health Equity

• We engage in global research because we want to find solutions to promote health and reduce burden of disease

• We know it’s about building capacity and efficiencies in health-producing systems

• A primary challenge is engagement across sectors of public and private stakeholders that must work together

• The most important part of engagement is including our citizens to understand their perspective, gain support, and understand how they are responding to innovations
The Global Movement Toward Health Equity

• Creating networks and nodes of research that are transnational supports the development of strategies consistent with the state of the science

• Establishing health equity as a public policy priority is an important message that everybody can understand and creates awareness and engagement

• Health equity is a shared responsibility and provides a foundation for organizing research and effective messaging

• Health equity requires addressing all forms of health across the life course including mental health and substance use
Population Distribution in Mexico, 1950-2050

Source:
INEGI. Estadísticas Históricas de México. México. S/A.
## Life Expectancy at Birth (Both Sexes), 2012: Latin America

<table>
<thead>
<tr>
<th>Country</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
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<tr>
<td>Bolivia</td>
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<td>Brazil</td>
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<td>Chile</td>
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<td>Guatemala</td>
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<table>
<thead>
<tr>
<th>Country</th>
<th>Years</th>
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<tbody>
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<td>Honduras</td>
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<td>Venezuela</td>
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</tr>
<tr>
<td>United States</td>
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</table>

Source: World Health Organization
U.S. Population Over 65

Estimated 39 million today

Projected to reach 72 million by 2030
### 10 Leading Causes of Death in the World: 2000 and 2011

<table>
<thead>
<tr>
<th>No</th>
<th>Causes of death, 2000</th>
<th>Deaths (million)</th>
<th>% of deaths</th>
<th>No</th>
<th>Causes of death, 2011</th>
<th>Deaths (million)</th>
<th>% of deaths</th>
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<tbody>
<tr>
<td>1</td>
<td>Ischaemic heart disease</td>
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<td>10.6</td>
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<td>Stroke</td>
<td>6.2</td>
<td>11.4</td>
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<td>3</td>
<td>Lower respiratory infections</td>
<td>3.5</td>
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<td>Lower respiratory infections</td>
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<td>5.9</td>
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<tr>
<td>4</td>
<td>Chronic obstructive pulmonary disease</td>
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<td>5.8</td>
<td>4</td>
<td>Chronic obstructive pulmonary disease</td>
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<td>5</td>
<td>Diarrhoeal diseases</td>
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<td>6</td>
<td>HIV/AIDS</td>
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<td>3.0</td>
<td>6</td>
<td>HIV/AIDS</td>
<td>1.6</td>
<td>2.9</td>
</tr>
<tr>
<td>7</td>
<td>Preterm birth complications</td>
<td>1.4</td>
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<td>7</td>
<td>Trachea, bronchus, lung cancers</td>
<td>1.5</td>
<td>2.7</td>
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<tr>
<td>8</td>
<td>Tuberculosis</td>
<td>1.3</td>
<td>2.6</td>
<td>8</td>
<td>Diabetes mellitus</td>
<td>1.4</td>
<td>2.6</td>
</tr>
<tr>
<td>9</td>
<td>Trachea, bronchus, lung cancers</td>
<td>1.2</td>
<td>2.2</td>
<td>9</td>
<td>Road injury</td>
<td>1.3</td>
<td>2.3</td>
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<tr>
<td>10</td>
<td>Diabetes mellitus</td>
<td>1.0</td>
<td>1.9</td>
<td>10</td>
<td>Preterm birth complications</td>
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<td>2.2</td>
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<tr>
<td>11</td>
<td>Road injury</td>
<td>1.0</td>
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<td>13</td>
<td>Tuberculosis</td>
<td>1.0</td>
<td>1.8</td>
</tr>
</tbody>
</table>

Source: World Health Organization, Department of Health Statistics and Information Systems
Changes in Future Life Expectancies Related to Obesity and Diabetes

• Life expectancy has steadily increased over the past two centuries

• Current rates of obesity projected could reduce life expectancy gains

• If rates of obesity and diabetes continue to increase at current rates, reductions in life expectancy may be 2 to 5 years+

Source: Olshansky et al. NEJM
March 17, 2005

Graphic: The Economist
Mortality Rates by World Bank Income Group and Cause-of-Death Group, 2000 and 2011

Source: World Health Organization, Department of Health Statistics and Information Systems
Mortality Rates among Men and Women Aged 15–69 Years, by Region and Cause-of-Death Group, 2011

Source: World Health Organization, Department of Health Statistics and Information Systems
### Global Burden of Mental, Neurological and Substance-Use (MNS) Disorders

<table>
<thead>
<tr>
<th>Rank</th>
<th>World Health Organization</th>
<th>High-income countries</th>
<th>Low- and middle-income countries</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Cause</td>
<td>DALYs (millions)</td>
<td>Cause</td>
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<tr>
<td>1</td>
<td>Unipolar depressive disorders</td>
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<tr>
<td>2</td>
<td>Alcohol-use disorders</td>
<td>23.7</td>
<td>Alzheimer's and other dementias</td>
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<td>3</td>
<td>Schizophrenia</td>
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<td>4</td>
<td>Bipolar affective disorder</td>
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<td>Drug-use disorders</td>
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<td>Drug-use disorders</td>
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<tr>
<td>7</td>
<td>Epilepsy</td>
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<td>Migraine</td>
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<td>8</td>
<td>Migraine</td>
<td>7.8</td>
<td>Panic disorder</td>
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<tr>
<td>9</td>
<td>Panic disorder</td>
<td>7.0</td>
<td>Insomnia (primary)</td>
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<tr>
<td>10</td>
<td>Obsessive–compulsive disorder</td>
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<td>Parkinson’s disease</td>
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<tr>
<td>11</td>
<td>Insomnia (primary)</td>
<td>3.6</td>
<td>Obsessive–compulsive disorder</td>
</tr>
<tr>
<td>12</td>
<td>Post-traumatic stress disorder</td>
<td>3.5</td>
<td>Epilepsy</td>
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<tr>
<td>13</td>
<td>Parkinson’s disease</td>
<td>1.7</td>
<td>Post-traumatic stress disorder</td>
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<tr>
<td>14</td>
<td>Multiple sclerosis</td>
<td>1.5</td>
<td>Multiple sclerosis</td>
</tr>
</tbody>
</table>

Grand Challenges for Mental, Neurological and Substance-Use (MNS) Disorders

• **Goal A**: Identify root causes, risk and protective factors
• **Goal B**: Advance prevention and implementation of early interventions
• **Goal C**: Improve treatments and expand access to care
• **Goal D**: Raise awareness of the global burden
• **Goal E**: Build human resource capacity
• **Goal F**: Transform health-system and policy responses

*Source*: Grand Challenges in Global Mental Health Initiative
Meeting the Challenge

How do we prevent heart attack, strokes, cancer, and other leading causes of death and disability through evidence- and practice-based policy, environmental, programmatic, and infrastructural changes?
Creating Health Equity: Conquering the Prevention and Quality of Care Gap Requires Engagement of All the Pieces
Creating Societies of Respect and Health Equity: A Twenty-Year Train Ride
“Every system is perfectly designed to achieve exactly the results it gets.”

-- Donald Berwick
Three Domains Supporting Health

1. Community Context
2. Health, Medical, and Social Services
3. Social Support

Quality of life and health
Public Policy and Engagement

• The ultimate challenge will be to integrate the planning and implementation across three domains that historically have had only coincidental connections
• Creating effective communication and linkage between medical and non-medical service sectors
• Establishing initiatives that foster community resident participation, and advocacy, are basic requirements for effectiveness and successful implementation
• Focusing on the language and strategies that foster engagement
“Addressing Societal” Determinants of Health

“Conditions in the social, physical, and economic environment in which people are born, live, work, and age. They consist of policies, programs, and institutions and other aspects of the social structure, including the government and private sectors, as well as community factors.”

Health and Community Transformation

• Community is where people reside and the physical and social characteristics of a community influence human development, behavior, and health across the life course and ultimately help produce health or disease.

• Most disease and mortality in the US is attributable to human behavior in some form: obesity, alcoholism, sexually transmitted disease, drug addiction, smoking, violence, risk taking, that are more prevalent in low income communities in societies that are highly stratified by social position.

• The physical attributes of communities increase disease risk through exposures to toxins, physical hazards, public safety problems, and poor food or insufficient supply, and lack of adequate exercise or healthful recreation.
Quality of Care Improvement and Outreach

• Need for flexible referral to specialty care or co-located services for elders with disabilities with emphasis on convenient access

• Need to up-skill primary care in mental health and treatment: Primary care is most common site for initial presentation of patients and specialized knowledge of aging and disability for serving patients is inadequate

• Disconnect between clinical treatment and patient self-management of chronic disease: need for linking clinic to home and community care

• Need for clinical “extenders” and technology assistance to support residential care including automated patient monitoring and support
Grand Challenges in Global Mental Health Initiative: Top Five Challenges

• Integrate screening and core packages of services into routine primary health care
• Reduce the cost and improve the supply of effective medications
• Provide effective and affordable community-based care and rehabilitation
• Improve children’s access to evidence-based care by trained health providers
• Strengthen the mental-health component in the training of all health-care personnel

Source: Grand Challenges in Global Mental Health Initiative
Building Capacity and Human Resource Development

• Must develop social care specialists in medical care services and in public health roles
• Professionalization of social workers and pharmacists is needed to support the development of integrated medical and mental health care and community models of health promotion, preventive medicine, and chronic disease management
• Wide use of community health workers for citizen engagement and to promote health literacy and awareness
Four Levels of Change Required

• Clarifying national aims for improvement

• Changing the care, itself

• Changing the organizations that deliver care

• Changing the environment that affects organizational and professional behavior
The Chain of Effect in Improving Systems of Care

Macro-system Regulations Standards of care, enforcement accountability

Research Knowledge Model testing and development, efficacy and effectiveness trials, scaling up

Organizational Context Processes of Care Policy development and implementation

Design public health and medical care practice standards, clinical culture, upskilling staff and continuous quality improvement
Levels of Activity: With feedback across levels

• The regulatory community imposing standards and accountability for systems of care (licensure and accrediting bodies)

• The research community providing theory, implementation models, and evidence of effectiveness

• The health care organizations as the web work controlling access, processes of care and practice innovations, and outreach to patients and community

• Populations and individuals as the nexus of culturally competent models of health promotion and disease management
Metrics are engagement tools

Assessing health needs is a community mobilization process

Without metrics there is no accountability or rational policy foundation
Regional Health Rankings Model

Source: County Health Rankings
Key New Tool – Health Impact Assessment (HIA)

HIA is tool for **systematically** evaluating, synthesizing, and communicating information about potential health impacts for more **informed decision-making**, especially in other sectors.
Key New Tool – HIA

• An HIA might ask:
  o What are the health consequences of high rates of students dropping out of secondary school?
  o What elements of school site design are most cost-effective in encouraging physical activity?

• Why use an HIA?
  o To influence decision makers about health issues using evidence – HIA places public health on the agenda
  o To highlight potentially significant health impacts that are unknown, under-recognized, or unexpected
  o To facilitate inter-sectoral planning and public participation in decision making
The Data Enclave for Building Decision Models

Source: *Health Affairs*, David Newman, Carolina Herrera, Amanda Frost and Stephen Parente
Effective Communication of Message

• 4,060 square miles
• 88 incorporated cities and 2 islands
• 9.8 million residents (more than 41 States)
• 48% Latino, 28% White, 14% Asian/Pacific Islander, 9% African American, 1% American Indian
• Over 100 different languages spoken by significant size populations*
• 16% of entire population living in poverty
• 23% of children in poverty**

Economic Hardship & Childhood Obesity
Indicators Associated with Household Income in Los Angeles County

Premature Mortality: Deaths ages 45-64 per 1000 population
- 2.1 - 3.9
- 3.9 - 4.3
- 4.3 - 4.9
- 4.9 - 5.8
- 5.8 - 8.6

Median Household Income
- $24k - $41k
- $41k - $53k
- $54k - $66k
- $66k - $120k
Closing Remarks

• Developing the national and regional dialogue about health and the need for change is a long range conversation that requires engaging and linking many sectors and stakeholders

• Strategies for engagement are built around effective communication and issue framing that improves understanding of how:
  o Social and physical environments contribute to health
  o Lowering the burden of disease is a public advocacy process

• Evidence-based practices, quality assurance, and measureable outcomes will be essential to achieving desired outcomes equally in public health and medical care