Insights into Workforce Strategy and Development for National Public Health Institutes

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Outline

- Need for Workforce Planning and Development
  - Who is the public health workforce?
  - Workforce Development Approaches
  - Workforce Planning

- Reflections from engagement with NCDC Georgia and NPHI Liberia
A global public health workforce crisis?

“There are critical public health workforce shortages in federal, state, and local public health agencies. The ability of the public health system to respond to emerging infectious diseases like West Nile Virus, food-borne illnesses, or bioterrorism relies on a well-trained, adequately staffed public health network at all levels. It is important that we address this problem before it becomes a crisis.” – U.S. Senator Chuck Hagel (R-Neb.)

<table>
<thead>
<tr>
<th>Study</th>
<th>Study setting</th>
<th>Study participants</th>
<th>Sample size</th>
<th>Outcome measure</th>
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<tbody>
<tr>
<td>Stone 2021</td>
<td>USA*</td>
<td>Public health professionals (overall)</td>
<td>225</td>
<td>Burnout: 66.2%</td>
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<td></td>
<td></td>
<td>Individuals in public health practice</td>
<td>176</td>
<td>Burnout: 65.1%</td>
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<td></td>
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<td>Individuals in public health academics</td>
<td>27</td>
<td>Burnout: 85.2%</td>
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<td>Jang 2021</td>
<td>South Korea</td>
<td>Public health officers</td>
<td>261</td>
<td>Burnout: 60.2%</td>
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<td>Nishimura 2022</td>
<td>Japan</td>
<td>Public health officers</td>
<td>100</td>
<td>Burnout: 27%</td>
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<td>Ryu 2019</td>
<td>Southeast Asia, Western Pacific</td>
<td>Field epidemiologist</td>
<td>62</td>
<td>Burnout: 19%</td>
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<td>Yeager 2019</td>
<td>USA</td>
<td>Public health workforce (overall)</td>
<td>104,928</td>
<td>Burnout: 26.45%</td>
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<td>Individuals in the local health department</td>
<td>70,302</td>
<td>Burnout: 26.04%</td>
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<td>Individuals in state health agencies</td>
<td>34,626</td>
<td>Burnout: 27.3%</td>
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<td>Ibrahim 2022</td>
<td>Malaysia</td>
<td>Public health workforce</td>
<td>366</td>
<td>Burnout: 44.5%</td>
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<td>Lu 2020</td>
<td>China</td>
<td>Public health service providers</td>
<td>4304</td>
<td>Burnout: 58.06%</td>
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<td>Yella 2022</td>
<td>India</td>
<td>Community health workers</td>
<td>410</td>
<td>Burnout: 10.5%</td>
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Source: American Public Health Association
https://www.apha.org/-/media/files/pdf/factsheets/publichealthworkforceissuebrief.ashx

National workforce capacity to implement the essential public health functions including a focus on emergency preparedness and response.

Roadmap for aligning WHO and partner contributions

- Defining essential public health functions, including emergency preparedness and response
- Strengthening competency-based education
- Mapping and measurement of all occupations
Who is the public health workforce?

“the core public health workforce is defined as all those engaged in the provision of public health services who identify public health as being the primary part of their role” Otok et al 2018
The public health workforce lifecycle

Perform
- Continuous professional training (CPT)
- Performance review & performance incentives

Produce
- Quality & relevance of training
- Availability of training (# seats)
- Access to training e.g. affordability

Recruit
- Attracting new staff
- Effectiveness of recruitment process in hiring qualified personnel
- Shortages in rural areas

Retain
- Addressing burnout and motivation
- Pay & workplace conditions
- Career pathways

Planning, Regulation, Governance
- Capacity for HRH planning & deployment
- Coordination among relevant agencies
- Development of training strategies that match needs
- Appropriate HR information systems
Basic steps in Health workforce planning

Supply Analysis: Number of different health worker cadres over time

Demand Analysis: Need for different health workers given roles they play

Gap Analysis: Difference between Supply & Demand

Solution Analysis: What do we do about it?

Staff demographics (e.g., aging), employment trends, training opportunities

Population needs, new technologies, changing epidemiological patterns

Adapted from Roberfroid, D., Leonard, C. & Stordeur, S. Physician supply forecast: better than peering in a crystal ball?. Hum Resour Health 7, 10 (2009). https://doi.org/10.1186/1478-4491-7-10
Approaches to assessing the appropriateness of public health workforce size

- Benchmarking workforce relative to self (e.g., the country's workforce relative to their size in previous years)
- Benchmarking the workforce relative to other workforces (e.g., comparing one country's workforce to another)
- Expert opinion to assess optimal capacity
- Relying on health system indicators to estimate workforce changes
- Estimating FTEs required to provide all the public health services

In practice, public health workforce planning is very dependent on the existence of a clear overarching vision for public health in the country.

JHU's Engagement with NPHIs
### Overview of engagement with NPHIs

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<th>National Public Health Institute of Liberia (NPHIL)</th>
<th>National Center for Disease Control and Public Health Georgia (NCDC)</th>
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<td><strong>Engagement Goal</strong></td>
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<td>Develop guidance, tools, and workforce planning approaches to analyze, attract, retain, and nurture talent to effectively deliver on core NPHI functions.</td>
<td>To provide technical support to the National CDC (NCDC) Georgia to develop an effective workforce strategy to achieve their mission and goals.</td>
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<td><strong>Period of Engagement</strong></td>
<td><strong>Period of Engagement</strong></td>
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<td>December 2022 - September 2023</td>
<td>April 2022 - Present</td>
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Workforce Planning and Development Approach (NPHIL)

**Strategic Direction**
Understand organizational mission, goals, and core functions to align with workforce planning

**Supply Analysis**
Analysis of the current workforce, including numbers of different public health cadres, skill sets, and competencies, to profile current workforce

**Demand Analysis**
Forecast needs for current and future workforce, considering both internal and external factors

**Gap Analysis**
Comparison of the supply and demand analyses to identify gaps between the current workforce and the future desired workforce state

**Plan Development**
Identification and co-development of strategies to close the workforce gap, including M&E

- Goal structure fit
- Document review
- HRIS Data review
- Workforce Survey
- Capacity and capability mapping to the strategic plan and current workload
- Comparison of finding from demand and supply
- Prioritization
- Identified strategies and action plan to address gaps
Challenges in Workforce Development (NPHIL)

### Performance
- Lack of performance, and compensation review systems
- Need for skill building activities for county staff
- Training needs assessment and fulfilment requirement

### Production
- Need to assess the quality and relevance of university offerings
- Need to establish coordination mechanisms between universities and the public health system

### Retention
- Employee engagement and recognition programs
- Need for defined career pathway
- Organizational culture to promote employee voices

### Recruitment
- Talent pipeline programs in collaboration with Universities
- Need for orientation and onboarding practices

### Planning, regulation, governance
- Need for Human Resource Information System
- Requirement of formalizing HR practices
- Need to build coordination among different units for workforce development
- Lack of basic infrastructure to build an environment of excellence
Prioritized Opportunities for Improvement (NPHIL)

1. Formalize human resource policies and practices
2. Establish basic infrastructure to support employees
3. Build a culture of excellence through employee recognition and engagement programs
4. Establish human resource data collection and management systems
### Public Health Workforce Development

**Needs identified**
- Stakeholder Engagement through Workshops
- Review and Analysis of HRIS data

### Public Health Workforce Competency Development

- Review existing public health competency frameworks > draft competencies aligned with job descriptions > refine as per country context
- Expert group review

### Analysis of Public Health Workforce Production

- Survey of public health training programs at Universities in Georgia
- Map competencies taught, by program and institution, number of students, and career trajectories for graduates
- Identify teaching strengths and needs, and universities to collaborate with in the future

### Public Health Workforce Survey and in-country interviews

- Survey of public health employees at NCDC and Municipal Public Health Centres.
- Key Informant Interviews with MPHC employees and NCDC leadership.

### Public Health Workforce Strategy and Norms

- Synthesize situation analysis
- Identifying best practices
- Consultative approach to identify policy proposals
- Draft workforce norms based on data and insights
## In Conclusion - Public Health Workforce Planning

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<td><strong>Having a clear vision of the future of public health services is key to determining public health workforce needs</strong></td>
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<td><strong>Data on existing workforce is foundational</strong></td>
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<td><strong>Understanding functions to be fulfilled, and competencies needed for these functions drives planning</strong></td>
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<td><strong>Workforce planning unlikely to be an exact science –”Good enough”</strong></td>
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