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Using the Public Health Workforce Calculator as a Planning Tool (But Not the Only Tool)

Jonathon P. Leider, PhD; Moriah Robins, MP; Jessica Solomon Fisher, MCP; Jason Orr, MPH; Brian C. Castrucci, DrPH, MA

In their practice report, Beitsch et al detail one of the first uses of the Public Health Workforce Calculator – a case study that began slightly before the public launch of the tool in summer and fall of 2022.¹ This case study represents the tool’s intended use – to create a planning-level estimate of staffing needs that starts a conversation in an agency. For Northern Nevada Public Health (NNPH), serving Washoe County, they did not find that this tool perfectly predicted the staffing gap their agency thought they needed, but the agency also did not have to start from scratch when coming up with its estimate. We find that to be a reasonable tradeoff.

On the Genesis of the Staffing up and the Public Health Workforce Calculator

Beitsch et al provide a history of the Staffing Up project, available in further detail through reports from the project’s funders and organizers, the de Beaumont Foundation, the Public Health Accreditation Board, and the Centers for Disease Control and Prevention.^{2,3} At its core, Staffing Up in its first phase asked a simple question: how numerically deficient was the public health workforce prior to COVID-19? We ventured through a year-long journey of data and potential research designs and outcomes until we settled on the idea of looking at the gaps in the core of our workforce through the lens of the Foundational Public Health Services (FPHS) model’s Foundational Areas and Capabilities, and not the

Community-Specific Services. The differences being that we recognized, as had previous national reports before us, that there were a myriad of local needs to be met but that a common core – a minimum package – *has to be met* for the public health system to function.⁴ Prior to COVID-19, a small number of states participated in what has now become known as ‘capacity and cost assessments.’ By combining these outcomes with other data, the Staffing Up project built a national model⁵ that showed the US was at least 80,000 FTEs short in governmental public health with respect to Foundational Areas and Capabilities prior to the onset of the COVID-19 pandemic. While phase one of Staffing Up had proved useful to this national question of shortage, we heard clearly and repeatedly that agency-level estimates would be quite helpful. The need for a workforce calculator was born. Though, as Beitsch et al note, there would be challenges.¹

Challenges Faced by the Workforce Calculator

One challenge encountered in designing the Workforce Calculator is that its modeling was foundationally ecological in nature, but individual agencies wanted to use the Workforce Calculator for themselves, in particular. That macro-micro disconnect was hard, inherently, to message. To talk about using a model’s estimates for agencies “like yours” but being careful to know that this is not “your agency” and should be taken as truly a “planning level estimate” is a communications task with which we continue to struggle. But the fundamental challenge is that the Workforce Calculator is not for everybody – the states that constituted the core data simply didn’t have enough (very) large agencies in them, and we don’t feel the model reliably supports agency-level estimates for the other large agencies (ie, serving greater than 500 000 persons). How best to address this major deficiency of not serving our largest locals in the country? That was and remains hard to say. We tried to collect more data to fix this

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problem, but did not have much success due to COVID-19 response and other challenges.

We think, though, Beitsch et al show a way forward on the challenge of estimation for very large agencies. As a technical matter, Washoe County is right on the cusp of population size for proper usability of the Workforce Calculator (this was discussed with their group as a potential limitation up front, of course). But, despite the fairly substantial differences in their process' findings and the model, we don't necessarily think population size is the root cause of the difference. As more agencies use the Workforce Calculator, and we may be proven wrong here, our suspicion is that every agency works within a state context of what the FPHS means. Essentially, they have to operationalize the Foundational Areas and Capabilities for themselves, despite national model definitions and standards. The results of that activity might be more or less than what the model has in mind – which is reasonable (hence, planning level estimate). This is the justification for a guided discussion of results, whether guided by internal or external partners.

Capacity and Cost Assessments into the Future

The key, in our view, is that the Workforce Calculator was not the whole of the process but an input. For example, the FPHS Capacity and Cost Assessment Tool, developed by the University of Washington and University of Minnesota and made available through the Public Health Accreditation Board, utilizes the Workforce Calculator to assist with estimating workforce needed to fully implement the Foundational Public Health Services.⁴ For their part, Beitsch et al detailed that they engaged in a guided workforce planning process that led NNPH through considerations of current capacity, future needs, generated gap measures, then carefully considered the implications of those gaps from management and political perspectives. That sort of holistic approach, in our view, is a case study in excellent workforce planning, as a technical matter, but also in maximizing the chance of uptake on the part of policy makers. It is not enough to generate estimates – working with agency leaders to understand their needs, and then messaging around how to communicate those needs, is a necessary step in any capacity and cost assessment process.

For decades, it has been clear that public health has been behind in its financial standardization and assessment compared to other fields. Honoré et al,^{6,7} Bekemeier et al,⁸ and others⁹ worked to create chart of account crosswalk systems that would help the

field talk to each other – these ideas have evolved over time and been incorporated into standardized capacity and cost reporting systems and toolkits, though the field still needs standardized reporting structures (per the National Academy of Medicine's now decade-old report).¹⁰ Further, opportunities exist to upgrade or improve the data foundations of the Workforce Calculator to allow for better versatility, perhaps through data collected by agencies completing the FPHS Capacity and Cost Assessment Tool, which collects a consistent set of data elements for the current and needed implementation of the FPHS.¹¹ The underlying data were collected pre-COVID-19 – it is a different world now. What few pieces of data we have seen since suggest need may be much greater. This is both a cautionary tale for Workforce Calculator users (always take it as a point to begin a conversation, rather than gospel, and even more so if need may in fact be more substantial now), and a good reminder that data and systems will always need updating, and collaboration from the field, to remain relevant into the future. Data ages and, when it does, will lose its relevance unless it remains refreshed.

What comes next? We expect there will be a forthcoming federal funding cliff unless the funding environment changes. While it is not clear if we as a field can avoid that cliff, our best approach is to assess, demonstrate, and communicate our value.¹² And to know what we need going into that cliff and its potential impact. Capacity and cost assessments help us do that. The Public Health Workforce Calculator is one tool to start that conversation. We hope it is a long, interesting – and guided conversation in your agencies.

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