THE TASK FORCE FOR GLOBAL HEALTH

Respiratory Virus Prevention Programs – Supporting Greater Global Access to Vaccines for Respiratory Diseases and Pandemic Response

Context

The value of vaccination programs for pandemic response and annual disease prevention

- Vaccines are increasingly useful tools in pandemic and epidemic responses
  - *Earlier detection and better technologies*
- Persistent inequitable access – routine and pandemic vaccines
- Reasons for delays in pandemic and routine vaccines reaching most vulnerable populations are many and complex

Vaccine availability

Vaccine program implementation

Vaccine acceptance and demand

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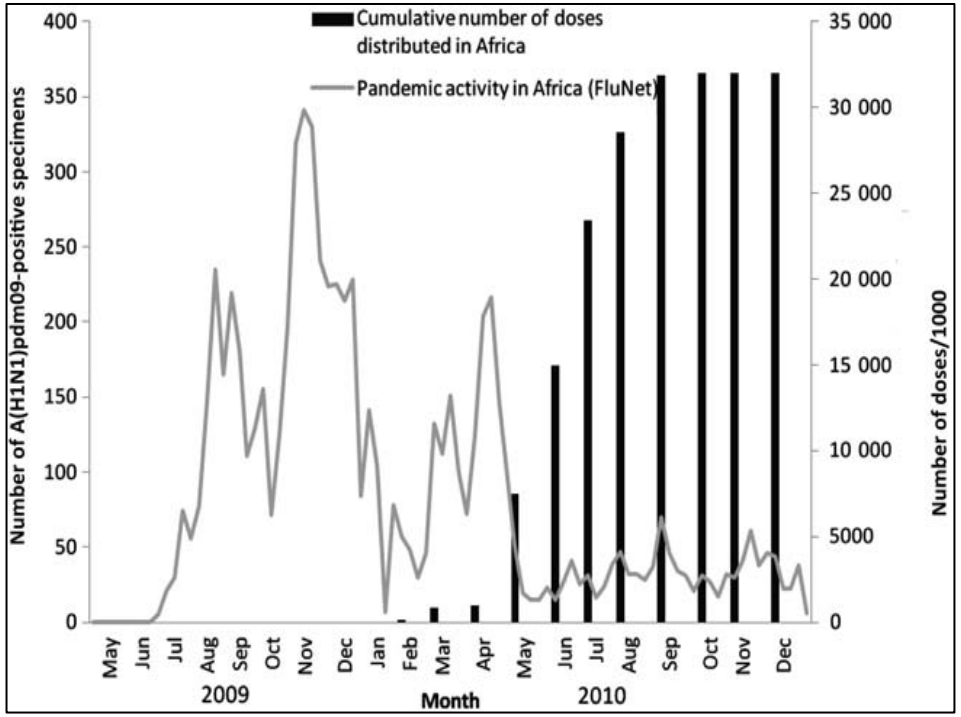
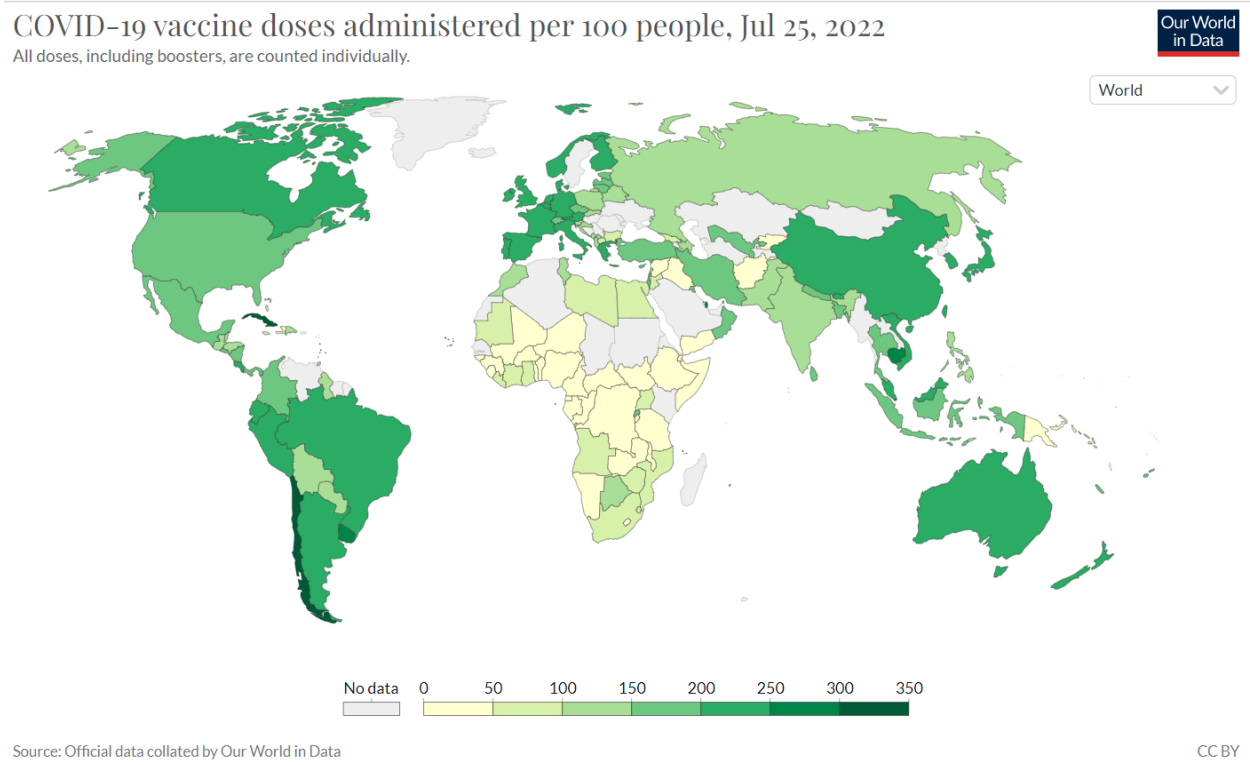
Persistent inequitable access to routine and pandemic vaccines makes this work necessary

2009 H1N1 pandemic vaccine did not get to low-resource countries until January 2010[1]



Significantly lower COVID-19 vaccine coverage in low-income countries



[1] Report of the WHO Pandemic Influenza A(H1N1) Vaccine Deployment Initiative, 2012
[2] Mihigo et al. J Infect Dis 2012
[3] Ortiz et al. Vaccine 2016
[4] Porter et al, Vaccine 2019

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Pathway to Vaccine Access for Pandemic Vaccine Responses Along the Value Chain

Global partners, government, industry

National governments

Detection of pandemic strain → **Development of vaccine candidates** → **Vaccine production and distribution** → **Vaccine program implementation** → **Pandemic vaccine response evaluation**

Systems must be capable and ready to access adult populations and conduct national campaigns

For effective pandemic vaccination programs

- Regulatory expertise
- Vaccine policy / effective NITAGs
- Distribution systems to access target groups
- High vaccine acceptance
- Monitoring programs (AEFI, coverage, VE)
- Data systems
- Trained workforce

Global Funders Consortium For Universal Influenza Vaccine Development

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COVIP

PIVI Partnership for Influenza Vaccine Introduction

RVP's includes three Programs and supports one Initiative

The Partnership for Influenza Vaccine Introduction (PIVI): Creates sustainable, routine, seasonal influenza vaccination programs in low- and middle-income countries – building up vaccine delivery capacity and infrastructure – through a public/private partnership between Ministries of Health, corporate partners, and technical agencies. www.pivipartners.org

COVID-19 Vaccination Implementation Program (CoVIP): Supports CDC's COVID response to help LMICs plan, implement and evaluate COVID vaccination programs. 35 countries funded. Built on successful PIVI model. www.taskforce.org/covip/

Global Funders Consortium for Universal Influenza Vaccine Development: Coordinates R&D funding for next-generation influenza vaccines from governments, philanthropies, and other stakeholders; implements the new Influenza Vaccine R&D Roadmap. www.unifluvac.org

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Ready2Respond: Advances pandemic vaccine preparedness through global public/private coalition which invests in the development of broad-reaching tools and operational solutions to address gaps in readiness. www.ready2respond.org


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OUR PARTNERS

> 60 ORGANIZATIONS

OUR APPROACH IN DEVELOPING PROJECTS

Theory of Change : In addressing downstream data and capabilities gaps, we help Low-and Middle-Income Countries advance their influenza and COVID 19 vaccination policies, and we create the conditions for increased and sustained access to vaccines.

Strategic Pillars	**Burden of Disease**	**Vaccine Access**	**Demand Generation**
Objectives	Build the case for investing in influenza vaccination readiness.	Accelerate access of seasonal influenza and COVID-19 vaccination programs as tools to grow adult vaccination and to bolster pandemic preparedness.	Lower vaccine usage barriers through coalition building at country or regional level.
Activities *Ongoing projects*	• *Collect economic information related to influenza vaccination including next generation vaccines.* • *Facilitate communication on burden and severity of influenza.*	• *Develop and implement tools for planning and procurement of vaccines.* • *Develop a roadmap of influenza vaccine program activities that are translatable in other adult vaccines.*	• Develop and test community engagement messaging adapted to local needs. • Increase availability of materials aimed at improving confidence in vaccines and adult vaccination.
Intended Impact	Influenza preparedness is a top priority within LMICs public health programs.	Faster and increased access to new adult respiratory vaccines in LMICs.	LMICs can achieve timely vaccination deployment and high coverage against seasonal influenza and other respiratory viral threats.

ONGOING PROJECTS

Vaccine Access

Long-range Vaccine Demand Forecasting Tool (with *curriculum*) – *Go Live July 2022*.

- Allow countries to simulate the evolution of vaccine demand (up to five consecutive years) for influenza vaccines.

Development of an influenza vaccine uptake playbook in Middle-Income Countries (MICs):

- Research exploring determinants of response-ready influenza vaccination programs in five MICs, as well as impact on COVID19 vaccination response.

Burden of Disease

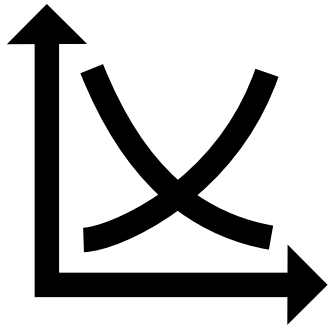
Cost Effectiveness:

- Quantify cost effectiveness of seasonal influenza vaccines through development of a mathematical model that projects the full health and economic impact of vaccines (Kenya, Thailand to be expanded to +LMICs)

Severity of Influenza:

- Extract data from Global Influenza Hospital Surveillance Network (GIHSN) data warehouse. 18 countries

Vax Demand Tool



READY2RESPOND

Our forecasting tool addresses some of the most critical challenges encountered by MICs and LICs while planning seasonal influenza vaccination campaigns

Findings from Primary Research

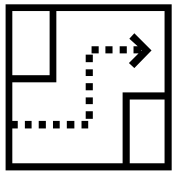
Interviews with Experts and Organizations (8)

- It is difficult to accurately forecast for seasonal influenza vaccines
- There is lack of evidence to make a case for vaccine funds
- Vaccine delivery is often delayed
- Supply of vaccines usually runs short
- Forecasting should be done for a long time horizon

Surveys with Country Health Managers (27)

- Planning for vaccination campaigns is limited in LMIC/LIC countries
- Delivery of vaccines is viewed as too slow and viewed as a key logistical challenge leading to waste
- Inaccurate and incomplete data limit planning and execution capabilities
- Data needs are abundant

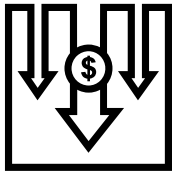
The tool will equip public health managers with the appropriate data and methodology to plan for seasonal influenza vaccination campaigns and influenza pandemic preparedness



Increase vaccination **demand planning expertise** and campaign **execution capability**

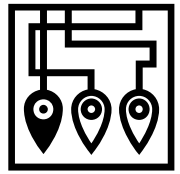
Enable timely **estimation and approval** of budget

Provide **access to supporting data** needed for demand estimation in one place (population, target group size, etc.)



Support **prioritization** and **resource allocation optimization** in the face of budget constraints

Enable planning optimization to **reduce wastage**



Aid in **influenza pandemic preparedness** by providing a mechanism to estimate required resources in the face of uncertainties

The forecasting tool would be hosted by a third party website and made accessible to end users through websites that are trusted by and familiar for them (e.g. Ready2Respond, potentially WHO, and other NGOs)

Public Health Managers

Access forecasting tool through multiple web pages

Web-based tool + Training curriculum

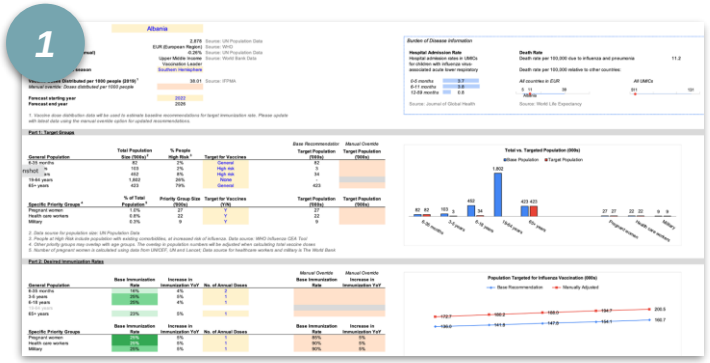
Cloud-based hosting of the tool

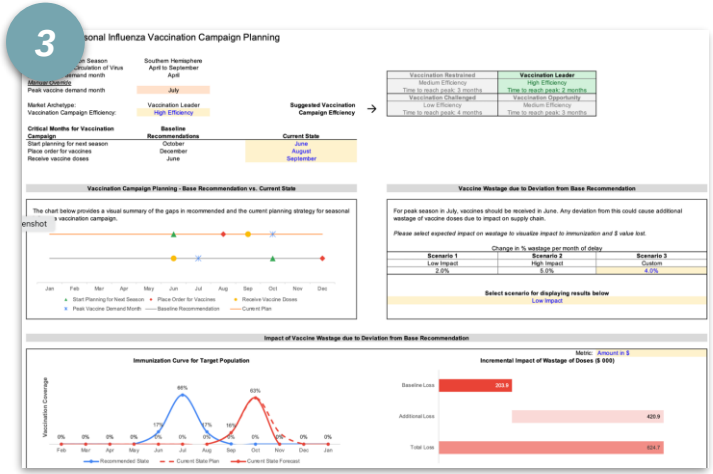
Would UNICEF and WHO, which are trusted and familiar sources for the users, be supportive of having a link to this tool on their websites?

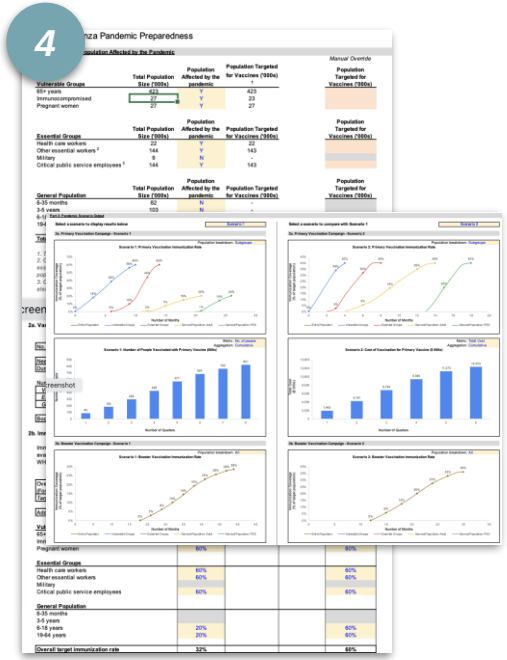
Benefits to organizations providing access to the tool

- Better flu planning supports **common public health goals**
- The tool provides **visibility regarding the importance of flu** and flu vaccination campaigns in MICs and LICs
- Broad use of the tool would enable impactful analytics by providing the ability to **aggregate data at a regional and global level**

The forecasting tool has been divided into 4 distinct components, each with robust data inputs, automated logics, and guided navigation







1. **Forecast Inputs** contains inputs required for the seasonal influenza vaccines forecast of up to 5 years, with prefilled data based on country selection, which can be overridden, and additional inputs requiring direct user input

2. **Forecast Outputs** provides results of the seasonal influenza forecast for vaccines as well as ancillaries, in the form of visual charts as well as tabular data, with adjustable budget allocation among the target groups as well as choice of displayed metrics

3. **Vaccination Campaign Planning** gives the user a chance to visualize current state of vaccination campaign planning and compare it to recommended best practices, including evaluation the impact of wastage

4. **Pandemic Scenario Planning** provides users with the ability to to forecast vaccine demand during an influenza pandemic based on impacted population groups and to create different scenarios for consideration

Note: Model visuals would change in the final web-based tool version.