CENTER FOR PREPAREDNESS AND RESPONSE

Centers for Disease Control and Prevention's Public Health Emergency Management Fellowship: Strengthening the International Public Health Workforce

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Poster Showcase
#iaem22
Non-Competitive Division

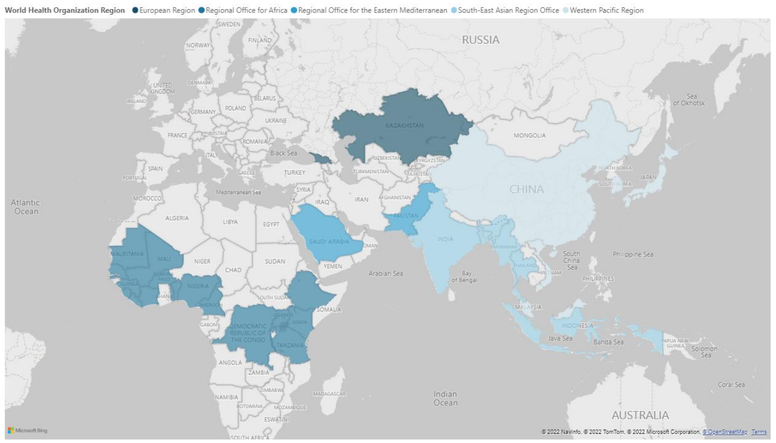
BACKGROUND

Since 2013, the United States Centers for Disease Control and Prevention (U.S. CDC) has provided the Public Health Emergency Management (PHEM) Fellowship to international public health professionals. The PHEM fellowship aims to build an international workforce to establish public health emergency management programs and public health emergency operations centers to increase capacity in participating countries (1-3).

In March 2021, 141 graduates of the fellowship were invited to complete a web survey designed to examine their past and current job roles and functions, assess their contributions to their country's COVID-19 response, and identify technical assistance needs for strengthening national preparedness and response systems. The **objectives** of the survey were to:

1) assess the number and proportion of graduates engaged in their respective countries' public health emergency management system during the COVID-19 response,
2) identify the roles and organizations of graduates in their country's public health emergency management system before and during the COVID-19 response,
3) identify public health emergency response skills acquired through the PHEM Fellowship that have been useful after graduation,
4) identify technical needs and methods of delivery (virtual and in-person) related to public health emergency management that were critical to sustaining the COVID-19 response.

U.S. CDC Countries with trained PHEM Fellows during August 2013- May 2020



METHODS

The 21-question web survey was designed in Epi-Info in both English and French and distributed via email to all fellowship graduates. The survey collected deidentified background information on respondents' country, roles, graduation month and year (cohort), and prior and current organization types (e.g., place of employment). Once the survey closed, data was extracted and analyzed using Epi-Info and Microsoft Power BI. To examine regional trends, we organized respondents by their corresponding World Health Organization (WHO) regional offices.

RESULTS

Of the 141 PHEM Fellowship graduates, 89 (63%) were successfully reached and completed the survey. WPRO (36%) had the lowest proportion of survey respondents compared to other regions. Overall, cohorts 1 and 2 had lower response rates and cohort 10 had a higher response rate compared to the other groups combined.

DISCUSSION

- The survey provided information on how participation in the PHEM Fellowship contributed to international workforce capacity to manage public health emergencies.
- Nearly 90% of respondents indicated that they held a role in their country's COVID-19 response demonstrating the relevance a trained PHEM workforce during emergencies.
- The greatest number of responses were from later cohorts (9–12) and from the African Region.
- Fellowship graduates requested additional technical assistance to support further development of plans and procedures, training and workforce development, and establishment of exercises and evaluation programs.
- There is an opportunity to build a community of practice among graduates to support peer-to-peer learning and sharing of best practices.

Objective 1: Graduates engaged in PHEM roles during COVID-19 Response in their Perspective

Roles	Number of respondents (percentage)*		
	Global† n=80	AFRO‡ n=56	EMRO, EURO, SEARO, WPRO‡§ n=24
Scientific Technical Assistance	38 (47.5)	23 (41.1)	15 (62.5)
Planning Section	34 (42.5)	21 (37.5)	13 (54.2)
Operations Section	28 (35.0)	13 (23.2)	15 (62.5)
Situational Awareness	22 (27.5)	13 (23.2)	9 (37.5)
Emergency Operations Center (EOC) Manager	14 (17.5)	7 (12.5)	7 (29.2)
Rapid Response Team	14 (17.5)	8 (14.3)	6 (25.0)
Other role	11 (13.8)	8 (14.3)	3 (12.5)
Incident Manager	10 (12.5)	6 (10.7)	4 (16.7)
Liaison Officer	7 (8.8)	2 (3.6)	5 (20.1)
Logistics Section	5 (6.3)	2 (3.6)	3 (12.5)
Public Information Officer	3 (3.8)	1 (1.8)	2 (8.3)
Finance and Administration Section	2 (2.5)	2 (3.6)	0 (0)
Safety Officer	2 (2.5)	2 (3.6)	0 (0)

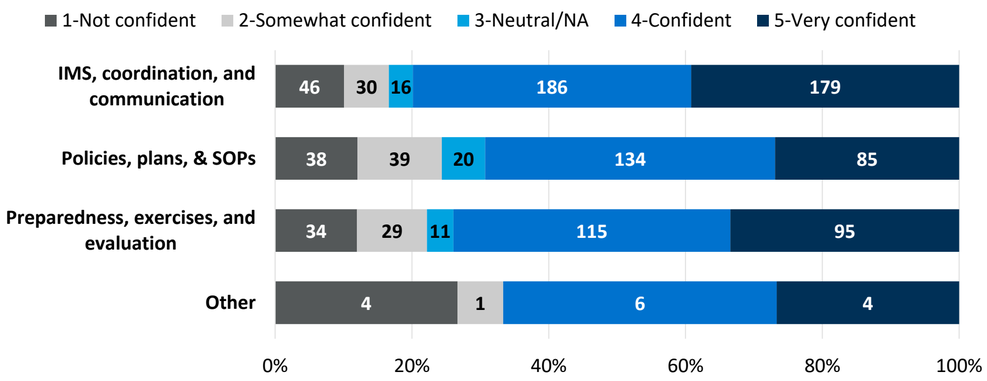
* Many respondents selected multiple roles
†Three respondents did not support COVID 19 response, and 6 respondents did not provide a response to this survey question.
‡World Health Organization Regions – AFRO: Regional Office for Africa, EMRO: Regional Office for the Eastern Mediterranean, EURO: European Region, SEARO: South-East Asian Region Office, WPRO: Western Pacific Region
§Regions combined due to low sample size in some cells
¶Values are no. (%)

Objective 2: Graduates worked in a variety of roles and organization before and during COVID-19 Response

Organization Types	Pre-PHEMF Organization n = 89*	COVID Response Organization n = 89*	Position Types	Pre-PHEMF position n = 89*	COVID Response position n = 89*
Ministry of Health	60 (67.4)	52 (58.4)	Scientific/technical (response)	55 (61.8)	49 (55.1)
National Public Health Institute	26 (29.2)	28 (31.5)	Emergency Operations Center staff (managerial)	39 (43.8)	47 (52.8)
Other organizations	19 (21.3)	16 (18.0)	Rapid Response Team manager	33 (37.1)	31 (34.8)
Non-governmental organizations	10 (11.2)	7 (7.9)	Other position	22 (24.7)	24 (27.0)
U.S.CDC country office	8 (9.0)	5 (5.6)	Scientific/technical (non-response)	30 (33.7)	23 (25.8)
Local department of health	8 (9.0)	9 (10.1)	Emergency Operations Center staff (non-managerial)	12 (13.5)	16 (18.0)
Animal health sector	7 (7.9)	5 (5.6)			
Other ministry	6 (6.7)	7 (7.9)			
World Health Organization	5 (5.6)	9 (10.1)			
Ministry of Defense	3 (3.4)	1 (1.1)			

*Values are no. (%)
Abbreviations; Public Health Emergency Management (PHEM); U.S. Centers for Disease Control and Prevention (U.S. CDC)

Objective 3: Graduates were confident in performing skills they learned through the PHEM Fellowship



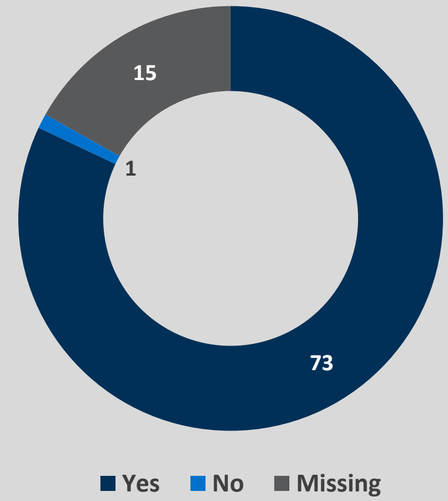
IMS, Coordination, and Communication
Develop a situation report
Develop an incident action plan
Develop response objectives
Develop risk communications
Manage meetings
Serve in an IMS functional role
Track tasks

Policies, Plans, & SOPs
Create a PHEOC handbook
Create standard operating procedures
Develop a Concept of Operations
Develop an all-hazards plan
Develop hazard-specific contingency plans
Develop legal authorities for PHEOC

Preparedness, Exercises, and Evaluation
Conduct a risk assessment
Conduct an After-Action Review
Contribute to exercise development
Facilitate PHEM trainings in-country
Perform watch desk duties

Other Skill
Other

Objective 4: PHEM Fellows interested in additional technical assistance (TA) and training



NEXT STEPS

- The impact of the COVID-19 response has increased the demand for CDC team to provide additional PHEM Fellowships. As a result, newly created PHEM fellowships are scheduled for FY23.
- Investments in emergency management programs could address the growing demand for public health emergency responders with PHEM expertise to combat future epidemics and pandemics (4).

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