

SUPPORTING STATEMENT Part B

For

**A Novel Framework for Structuring Industry-Tuned Public-Private Partnerships and Economic
Incentives for U.S. Health Emergency Preparedness and Response**

Version 1.0

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List of Attachments:

- Attachment A – Authorizing Legislation
- Attachment B – Published 60-day FRN
- Attachment C – Interview Guide
- Attachment D – Survey Plan
- Attachment E – Recruitment E-mail for Potential Interview Participants
- Attachment F – Recruitment E-mail for Potential Survey Participants
- Attachment G – Institutional Review Board (IRB) Exemption Letter

Supporting Statement Part B: Collections of Information Employing Statistical Methods

1. Respondent Universe and Sampling Methods

This project has two data collection components. The first will be an interview campaign conducted by the research team with decision-makers at private sector organizations across eight industries involved in the public health preparedness and response (PHPR) space. The second data collection component will consist of an online Public-Private Partnership (PPP) Survey for all decision-makers across all eight industries.

Part A: Industry-tailored interview campaigns

Respondent universe: The interview respondent universe consists of decision-makers at organizations whose products, services, or activities could support public health emergency preparedness and response. The interviews will cover the following eight sectors: 1) pharmaceutical/life sciences, 2) health IT/mobile, 3) retailers/distributors, 4) academia/research organizations, 5) hospitals/healthcare providers, 6) health insurance, 7) logistics/transportation, and 8) charitable organizations/foundations.

Recruitment: A key informant and snowballing sampling strategy will be used to identify potential respondents for the interview campaign. The research team will identify decision-makers in the varied industry sectors by leveraging existing contacts, networks, and relationships that have been established by individuals working throughout PwC's Advisory practice. Each potential respondent will be sent an e-mail that provides details about the study and the data collection procedure itself (**Attachment E - Recruitment E-mail for Potential Interview Participants**). The information collected during interviews will be substantively different based on each individual's unique job, organization, and industry.

Sample size: Multiple interviews with individuals from each sector will provide the research team with a richer and more holistic illustration of how each industry views PPPs in the PHPR space. Approximately 45 interviews will be conducted overall. The targeted number of interview respondents by organization type are listed below.

Industry	Target Sample Size
(1) Pharmaceutical / Life Sciences	8
(2) Health IT / Mobile	8
(3) Retailers / Distributors	6
(4) Academia / Research Organizations	6
(5) Hospitals / Healthcare Providers	5
(6) Health Insurance	4
(7) Logistics / Transportation	4
(8) Charitable Organizations / Foundations	4
Total	45

The groups with larger sample targets are the industries where the research team believes the broadest partnership expansion opportunities exist. The research team will continue to approach potential interview subjects until the target sample sizes in each of these groups are met. Based on the prior experience of the research team, these target sample sizes will be sufficient to achieve thematic saturation in each sector.

Part B: Online survey

Respondent universe: The survey respondent universe consists of decision-makers at organizations whose products, services, or activities could support public health emergency preparedness and response. The survey will cover the same sectors that were targeted by the interview campaigns: pharmaceutical/life sciences, health IT/mobile, retailers/distributors, academia/research organizations, hospitals/healthcare providers, health insurance, logistics/transportation, and charitable organizations/foundations.

Recruitment: A key informant and snowballing sampling strategy will also be used to find respondents for the survey. The research team will identify decision-makers in the varied industry sectors by leveraging existing contacts, networks, and relationships that have been established by individuals working throughout PwC's Advisory practice. Before receiving a link to the survey, each potential survey respondent will be sent an e-mail that provides details about the study and the data collection procedure itself (**Attachment F - Recruitment E-mail for Potential Survey Participants**).

Sample size: A large number of survey respondents from each sector will provide the research team with a richer and more holistic illustration of how each industry views PPPs in the PHPR space. This is the first information collection procedure of its kind, and therefore historical response rate data does not exist. For this reason the research team is conservatively assuming a response rate of 50% from survey respondents across all eight industries. The survey will be sent to a total of 200 individuals in order to reach the target sample size of 100 respondents. The number of potential respondents e-mailed and the estimated number of respondents by sector are listed below.

The number of potential survey respondents the research team plans to approach mirrors the proportion of the total interview targets covered by each industry sector. For example, the number of interview targets for the pharmaceuticals/life sciences industry is 8. This is equal to ~18% of the total number of interviews (n=45). Therefore 18% of the 200 individuals that will be approached to take part in the survey will be from the pharmaceuticals/life sciences industry (n=36). As discussed above, the industries that are allocated larger proportions of the sample population represent the areas that the research team believes the most fruitful partnership opportunities exist.

Industry	Potential Respondents to be E-mailed	Estimated Respondents (assuming 50% RR)
(1) Pharmaceutical / Life Sciences	36	18
(2) Health IT / Mobile	36	18
(3) Retailers / Distributors	26	13
(4) Academia / Research Organizations	26	13
(5) Hospitals / Healthcare Providers	22	11
(6) Health Insurance	18	9
(7) Logistics / Transportation	18	9
(8) Charitable Organizations / Foundations	18	9
Total	200	100

Based on the prior experience of the research team, these target sample sizes will be sufficient to achieve thematic saturation in each sector.

2. Procedures for the Collection of Information

Part A: Industry-tailored interview campaigns

Sampling Strategy: A key informant and snowballing sampling strategy will be used. The research team will identify willing participants through PwC's and CDC's network of private profit and non-profit organizations, mutual contacts, and previous or current work relationships. After they have been identified, potential interview respondents will be sent an e-mail that provides details about the study and the data collection procedure itself (**Attachment E – Recruitment E-mail for Potential Interview Participants**).

Information Collection: After the potential interviewee consents to take part in this portion of the study, the interview will be conducted via phone or in-person. All interviews will be conducted by PwC employees who are members of the research team, using **Attachment C – Interview Guide** as a script. Each interview team will consist of either one or two PwC employees who have been trained to collect information efficiently and accurately via interviews. Interview data will be recorded as either typed or hand-written notes before it is consolidated (if multiple interviewers are present) and summarized. Each interview will take approximately 60 minutes to complete.

Estimation procedure: Interviews will be structured and analyzed using “Voice of the Customer” techniques which focus on deriving stakeholder wants and needs from a service-oriented lens. The research team will read and discuss all of the consolidated interview transcripts, and identify repeated themes and consistent observations from the respondents within the various industry groups. The research team will also identify any repeated themes and observations from the respondents across industry sectors.

Part B: Online survey

Sampling Strategy: A key informant and snowballing sampling strategy will be used. The research team will identify willing participants through PwC's and CDC's network of private profit and non-profit organizations, mutual contacts, and previous or current work relationships. After they have been identified, potential survey respondents will be sent an e-mail that provides details about the study and the data collection procedure itself (**Attachment F – Recruitment E-mail for Potential Survey Participants**).

Information Collection: After the potential survey respondent consents to take part in this portion of the study, they will be sent a link to the online survey. The survey will remain open for two weeks to provide respondents ample time for completion. The online survey will be conducted and analyzed securely using Qualtrics. An outline of the survey is included in this package under **Attachment D – Survey Plan**. Completing the survey will take approximately 15 minutes, and it can be completed at the respondent's leisure, as progress can be saved.

Estimation procedure: The survey will collect data in a rigorous semi-quantitative manner using precise and closed-form questions (e.g., using Likert scales). Because the quantitative data will be fairly straightforward, only simple numerical analysis (means, frequencies etc.) will be utilized. The results of the survey will be analyzed and presented at an industry level, which will allow the specific partnership preferences of different types of organizations to be illustrated and compared. Any overarching themes across the industry sectors will also be analyzed and presented if identified.

3. Methods to Maximize Response Rates and Deal with Nonresponse

The research team will identify willing participants through the extensive industry network of PwC, and its membership in 3rd party industry and non-profit organizations (e.g. the Global Health Council). The research team will also rely on CDC's extensive relationships and credibility in the public health space. The existing positive relationships in these two networks will encourage participation in both the interview campaigns and the survey. Each interviewee will also be asked if they can recommend any other potential participants at the end of each interview, and this mechanism will help the research team target additional promising candidates.

After they have been identified, potential interview and survey respondents will be sent an e-mail that provides details about the study and the data collection procedure, emphasizing that participation is voluntary and all data will be de-identified, aggregated, and stored securely (**Attachments E and F**). For both the survey and the interview, the research team will follow up one additional time if there is no response after an initial request, which will further encourage participation.

The data collection tools have been designed carefully by experienced researchers who have utilized proven techniques to minimize the burden on respondents who may not be overly motivated to complete or take part. However, both CDC and private organizations will benefit from the identification of optimal partnership characteristics and opportunities in this space. For this reason, the research team believes that the decision-makers targeted for both information collection initiatives will have an interest in participating and making the project a success.

Because comparable surveys have not been completed in the past, the research team is conservatively assuming a response rate of 50% for survey respondents across all industries. No assumptions about interview response rates have been made, and the research team will approach potential interviewees until the sample size in each industry group is satisfied.

To address non-response bias, the research team will also utilize outside sources and existing literature to validate the themes and common responses identified during the study. These outside sources will allow the team to highlight and scrutinize unusual findings that may not corroborate historical data or examples.

4. Tests of Procedures or Methods to be Undertaken

The proposed information collection instruments have not been used in previous studies. The time estimates are based on the past experiences of the research team in similar data collection situations.

5. Individuals Consulted on Statistical Aspects and Individuals Collecting and/or Analyzing Data

No individuals were consulted regarding the statistical aspects of the design of this study. All information will be collected and analyzed by PricewaterhouseCoopers LLP (PwC) employees and select members of the Office of Applied Research (OAR) in the Office of Public Health Preparedness and Response (OPHPR) at Centers for Disease Control and Prevention (CDC).

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