

## SUPPORTING STATEMENT – PART B

### B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

#### 1. Description of the Activity

The focus groups, cognitive interview, and survey protocols for this research build upon previous research on the same topic, conducted by RAND Corporation, in the Palestinian West Bank in 2011 and 2012. The RAND research team subsequently modified the questions based on the specific sociocultural dynamics within rural and urban Yemen.

The original intention, in March 2015, was to field the focus groups, cognitive interviews and survey exclusively in Yemen. But technical delays occurred within the Department of Defense. If further delays occur, and the time of relative stability worsens, the project team would like to field the protocols in Tunisia as an alternative to Yemen.

**Focus Groups & Cognitive Interviews.** As discussed previously, the focus groups and cognitive interviews have been designed to validate the survey instrument and, therefore, are designed to be limited in scale and duration; 8 questions in the cognitive interviews, 4 for the focus groups. We expect to implement three focus groups (6-9 persons in each), two with men and one with women. We expect to implement 9-12 cognitive interviews.

**General Population Survey.** Topics in the survey instrument include the following: demographics (age, education, marriage, employment status), quality of life; degree of social influence (social and family relationships); views on the current economic and political situation; and degree of religiosity. All protocols have been fully reviewed by the RAND Human Subjects Protection Committee and relevant DOD Secondary Review office. We expect to conduct a multi-stage stratified sampling based on population data and maps. The Yemeni population is estimated to be 24 million persons, approximately 40 per cent (9.6 million) of which are estimated to fall within our target ages of “youths” 18-35; 54 per cent of the population is Sunni and 45 per cent is Shi’a. (We do not expect to exclude respondents based on ethnicity or tribal affiliation). And, finally, 35 per cent of the population is estimated to reside in Yemen’s urban centers.

**Other.** RAND Corporation has partnered with a local partner institution to implement the focus groups, cognitive interviews and survey portion of this research. This partner institution has extensive experience conducting surveys on behalf of the World Bank and United Nations in

Yemen. Its survey director has advanced degrees from universities in the United Kingdom. RAND Corporation also has utilized this partner institution for a past analysis of risky behavior and health amongst urban and rural populations in Yemen. The subsequent sections provide greater detail on the research protocols and data collection procedures for this effort.

## 2. Procedures for the Collection of Information

**Focus Groups.** The RAND Corporation research team, in partnership with HSPC and the DOD Secondary Review Committee, has developed a recruitment screener for focus group participants. We will implement three limited focus groups: two men and one women with 6-9 participants in each. Participants will be recruited in neighborhood market places outside the boundaries of sectarian violence, which exists primarily in Sana'a and Aden. The recruitment screener thoroughly explains the purpose of the study and its voluntary nature. The focus group protocols similarly emphasize the voluntary nature of the study. Per guidance from the DOD Secondary Review Committee, participants will not be asked to provide tribal or religious affiliation in these discussions.

**Cognitive Interviews.** Like the focus groups, the cognitive interviews are designed to be non-intrusive, limited in nature, and scope. We will implement 9-12 cognitive interviews in individual households to validate the survey instrument. Participants will be recruited in neighborhood market places outside the boundaries of sectarian violence. Approved by RAND HSPC and DOD Secondary Review, the recruitment screener thoroughly explains the purpose of the study and its voluntary nature.

**General Population Survey.** To assist with the design and implementation of the survey instrument, the RAND research team includes a statistician, Dr. Bonnie Ghosh-Dastidar, who specializes in sampling design for hard-to-reach populations. Dr. Ghosh-Dastidar will continue to work with the local partner institution to ensure that the sampling plan yields results that reflect the population. Under the current circumstances, this sampling plan will remain fluid until OMB approves the implementation of this research. Nonetheless, the following paragraphs provide greater detail of our data collection methods.

The first wave of our survey will emphasize rural populations. According to the local partner institution, the current fighting has not reached the rural populations but, instead, has focused on Sana'a and Aden. This provides an opportunity to implement the survey in these

geographic spaces with minimal risk to respondents or the research team. The second wave will be conducted in urban city-centers once the partner institution believes it is safe to implement the survey. The following paragraphs explore the survey implementation in greater detail.

The survey will employ multi-stage stratified sampling, based on existing population data and maps. While urban and rural populations represent the primary stratification, the sample will also include representation from across the 9 major subpopulations (tribes / geographic zones). First, the geographic area will be identified randomly, then the household within that geographic space. Once a household is identified, a list of eligible respondents in the household will be compiled and one chosen for the survey. If this eligible individual is not at home, a follow-up visit will be administered. If this individual declines to participate, another in the household will not be chosen to complete the survey. (Substitutes will not be allowed). The survey will be conducted face-to-face. Our targeted sample will be 2000 respondents, ages 18-35, with an even distribution between males and females. The estimated distribution between rural and urban households is 1300 / 700 respectively. The partner institution recently conducted a survey of Yemeni youths utilizing this sampling methodology. Based on this experience, as well as prior RAND experience with this instrument in the West Bank and Gaza Strip, we anticipate a 78 percent response rate.

As noted above, during the past year, Yemen has experienced times of relative stability and substantial unrest. If this survey is not approved in time to take advantage of the current relative stability, the project team requests consideration of Tunisia as a substitute. Like Yemen, Tunisia (population estimated to be 11 million) has a substantial youth population: 40 per cent estimated to be under the age of 35 years old. It is more urban than Yemen, with the rural population constituting 35 per cent and urban population 65 per cent. The primary divergence between Yemen and Tunisia is its ethnic distribution – Tunisia is 99 per cent Sunni Muslim. This will eliminate the comparative element to our study but we will still be able to retain the overall methods.

### 3. Maximization of Response Rates, Non-response, and Reliability

As discussed previously, we anticipate a 78 percent response rate, based on past surveys of Yemeni youth and the execution of this instrument within the Palestinian West Bank and Gaza Strip. In addition, the West Bank survey yielded approximately 3 percent non-response rate to

items within the questionnaire. We were able to utilize multivariate imputations with chained equations (MICE) to impute missingness and derive significant, generalizable, findings (95% confidence level) from our models. We expect to have similar results with this survey instrument. That said, we will also continue to work closely with the local partner institution on the sampling procedures, given the fluidity of the current conflict.

#### 4. Tests of Procedures

RAND utilizes best practices in its design and execution of surveys and in the subsequent analysis of data. For this research, RAND reviewed the results of previous surveys of Yemen and the wider Middle East in designing the survey protocol. It also was derived from a past survey on the same topic in the West Bank and Gaza Strip. We also will be using the focus groups and cognitive interviews to inform the survey instrument. And, finally, with respect to its implementation, senior members of the RAND research team (principle investigator, survey direction, senior statistician) all have extensive experience conducting field research in hard-to-reach populations, including in the midst of conflict. The local partner institution also has an extensive track record for conducting surveys in Yemen with international organizations. If it is necessary to execute this survey in Tunisia as a substitute for Yemen, RAND will work with one of two possible organizations: ELKA Consulting or Observatoire National de la Lutte Contre le Terrorisme et le Crime Organisé.

#### 5. Statistical Consultation and Information Analysis

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