Answer the Knock!

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City of Portsmouth, Virginia
Community Health Study

• Based upon CASPER (Community Assessment for Public Health Emergency Response) methodology
• Provides baseline data for Community Health Improvement Plan:
  - Physical Activity
  - Obesity
  - Tobacco Use
  - Heart Disease
  - Diabetes
  - Mental Health
  - Maternal and Child Health
Sampling Method

- **Sampling Frame:** All households within the City of Portsmouth
- **Two stage probability sampling**
  - Stage 1: divide the city into 35 clusters or known number of housing units using U.S. Census blocks
  - Stage 2: pick at random 7 households from each cluster
Example - Map of 1 Portsmouth Cluster

Portsmouth Health Dept.
1701 High St.
Portsmouth, VA 23704

Community Health Survey 2014

Date: 9/15/2014

Interviewer:

COUNTY: 740
TRACT: 211100
BLOCK: 1025
CLUSTER: 38
TOTAL HUs: 34
SAMPLES: 7

Reference Point:
Longitude: -76.311899
Latitude: 36.831495

NOTES:

LEGEND:

River and Streams

Clusters

Water Bodies

Scale: 100 ft per inch

Portsmouth Health Department
Portsmouth, Virginia 23704

Prepared for:

US Census Bureau

2014 American Community Survey

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www.portsmouthva.gov
Randomly Selecting a House

- This will be done by YOU in the field

- Review your cluster map
- Start at smiley face
- Go in the direction of the arrow
- Visit every n’th house on one side of the street
- Repeat as needed until 7 interviews are completed
Steps in the Field

1. Locate Cluster
2. Start at designated starting point
3. Randomly select house

Accessible:
- Available: Read script & obtain consent
- Complete interview

Inaccessible:
- Unavailable or non-consenting
- Complete Tracking Form
- Move to next randomly selected house; repeat until interviews in the cluster are complete.

Source: CDC
Methodology

- Survey was compiled into digital form with a backup paper copy
- Surveyors used iOS and Android devices with Collector for ArcGIS to input survey responses and mark locations
- Survey Coordinator tracked progress via an Operational Dashboard
- Post survey data was analyzed using Geostatistical Analysis to extrapolate results city wide.
Survey Geodatabase

- Domains used for all answers and coded numerically for data analysis post survey
- Field Aliases were used to notate the survey question
- Database was loaded as a service into ArcGIS Online
Using Collector in the Field

- Collector was loaded onto iOS and Android devices
- Each team had a mobile device and a paper survey
- One team member read the paper survey while the other inputted answers into Collector
- Teams were instructed not to add a point until they have crossed the property line on the app, as some clusters shared a street border.
Benefits

- No additional cost
- Used technology we already had
- Users found the app easy to use
- Drop down menus allowed for quick data entry in the field
- Minimized data entry after field teams returned
- Ability to do further data analysis
Issues

- **iOS vs Android interface**
  - iOS would truncate aliases to 50 characters
  - Android users had to choose a specific number for a range field as opposed to a custom input
  - Some users could not properly sync or load the app upon initial use
<table>
<thead>
<tr>
<th>Q1. Interview Date (MM/DD/YY)</th>
<th>Q3. Cluster Number</th>
<th>Q5. Team Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q2. County Name</td>
<td>Q4. Survey Number</td>
<td>Q6. Interview Initals</td>
</tr>
<tr>
<td>Q7. Type of structure</td>
<td>Q8. Survey Code</td>
<td>Q9. Age Group</td>
</tr>
<tr>
<td>Q10. Is English the primary language spoken at home?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Q11. What is your main mode of transportation to get to work or school?</td>
<td>Walk, Bus, Taxi, Car, Motorcycle, Other</td>
<td></td>
</tr>
<tr>
<td>Q12. How many people live in your household?</td>
<td>1, 2, 3, 4+</td>
<td></td>
</tr>
<tr>
<td>Q13. Have you been told by a doctor or other health professional that your health is not what it should be?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Q14. Are you diabetic?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Q15. Are you taking any medication for diabetes?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Q16. Are you taking any other medication?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Q17. Do you smoke cigarettes?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Q18. Do you use any other tobacco products?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Q19. Have you been told by a doctor or other health professional that your health is not what it should be?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Q20. Do you have any chronic health conditions?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Q21. In the past 12 months, how many times have you visited the emergency room?</td>
<td>1, 2, 3, 4+</td>
<td></td>
</tr>
<tr>
<td>Q22. How much do you weigh?</td>
<td>90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200+</td>
<td></td>
</tr>
<tr>
<td>Q23. Is there a place to exercise in your neighborhood?</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

**Health Status:**

| Q24. Are you currently employed? | Yes | No |
| Q25. Have you ever been told by a doctor or other health professional that your health is not what it should be? | Yes | No |
| Q26. Do you have any other physical or mental health conditions? | Yes | No |
| Q27. Are you currently receiving any type of medical treatment? | Yes | No |
| Q28. Are you taking any medication for any health condition? | Yes | No |

**Demographics:**

| Q29. Are you married? | Yes | No |
| Q30. Are you a student? | Yes | No |
| Q31. Are you a member of a minority group? | Yes | No |
| Q32. Are you currently employed? | Yes | No |
| Q33. Are you currently enrolled in school? | Yes | No |
| Q34. Are you a member of a minority group? | Yes | No |

**Survey Questions:**

- **Q24a.** Are you currently employed? Yes | No
- **Q24b.** Are you currently enrolled in school? Yes | No
- **Q24c.** Are you a member of a minority group? Yes | No
- **Q24d.** Are you currently employed? Yes | No
- **Q24e.** Are you currently enrolled in school? Yes | No
- **Q24f.** Are you a member of a minority group? Yes | No
- **Q24g.** Are you currently employed? Yes | No
- **Q24h.** Are you currently enrolled in school? Yes | No
- **Q24i.** Are you a member of a minority group? Yes | No
Step 2

Select Community Health Survey 2014
Step 3

Select CHS 2014
Step 4 – Begin The Survey

Same info as on Tracking Form
Step 4 – Begin The Survey

Drop Down Menus
Step 4 – Begin The Survey

Collect New

012. WHAT IS YOUR MAIN MODE OF TRANSPORTATION TO GET TO LEISURE ACTIVITIES (SUCH AS GOING TO GET FOOD, SHOPPING, GO TO THE PARK)

<No value>

013A. HAVE YOU EVER BEEN TOLD BY A DOCTOR, NURSE OR OTHER HEALTH PROFESSIONAL THAT YOU HAVE HAD ANY OF THE FOLLOWING: HEART ATTACK, ANGINA, OR CORONARY ARTERY DISEASE?

<No value>

No
Yes
DK
<No value>

013E. STROKE

<No value>
Step 5 – Finished? Click Done.
Editing Questionnaire
Inside a building/no GPS
<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Frequency (n=198)</th>
<th>% of households</th>
<th>Projected number of Households</th>
<th>Weighted %</th>
<th>Weighted 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General health</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excellent</td>
<td>7</td>
<td>4</td>
<td>1750</td>
<td>4</td>
<td>1-8</td>
</tr>
<tr>
<td>Very Good</td>
<td>34</td>
<td>18</td>
<td>7856</td>
<td>20</td>
<td>13-26</td>
</tr>
<tr>
<td>Good</td>
<td>61</td>
<td>32</td>
<td>13494</td>
<td>34</td>
<td>27-41</td>
</tr>
<tr>
<td>Fair</td>
<td>58</td>
<td>30</td>
<td>11189</td>
<td>28</td>
<td>21-36</td>
</tr>
<tr>
<td>Poor</td>
<td>33</td>
<td>17</td>
<td>5520</td>
<td>14</td>
<td>8-20</td>
</tr>
<tr>
<td><strong>BMI</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 and above (obese)</td>
<td>74</td>
<td>38</td>
<td>16283</td>
<td>41</td>
<td>33-49</td>
</tr>
<tr>
<td>25.0-29.9 (overweight)</td>
<td>52</td>
<td>27</td>
<td>10158</td>
<td>26</td>
<td>18-33</td>
</tr>
<tr>
<td>18.5-24.9 (normal)</td>
<td>56</td>
<td>29</td>
<td>10376</td>
<td>26</td>
<td>17-35</td>
</tr>
<tr>
<td>Below 18.5 (Underweight)</td>
<td>8</td>
<td>4</td>
<td>2948</td>
<td>7</td>
<td>3-12</td>
</tr>
<tr>
<td><strong>Did you get at least 30 minutes of physical activity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>35</td>
<td>17</td>
<td>8989</td>
<td>22</td>
<td>14-30</td>
</tr>
<tr>
<td>1-4 (some days)</td>
<td>37</td>
<td>19</td>
<td>7448</td>
<td>18</td>
<td>12-24</td>
</tr>
<tr>
<td>5-9 (every other day)</td>
<td>44</td>
<td>22</td>
<td>9558</td>
<td>23</td>
<td>17-30</td>
</tr>
<tr>
<td>10-13 (most days)</td>
<td>26</td>
<td>5</td>
<td>4845</td>
<td>12</td>
<td>6-18</td>
</tr>
<tr>
<td>Everyday</td>
<td>56</td>
<td>28</td>
<td>9966</td>
<td>24</td>
<td>17-32</td>
</tr>
<tr>
<td><strong>Eat Fruit</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>25</td>
<td>13</td>
<td>5024</td>
<td>12</td>
<td>7-18</td>
</tr>
<tr>
<td>1-3 (some days)</td>
<td>52</td>
<td>26</td>
<td>10276</td>
<td>25</td>
<td>18-32</td>
</tr>
<tr>
<td>4-6 (most days)</td>
<td>45</td>
<td>23</td>
<td>9423</td>
<td>23</td>
<td>17-29</td>
</tr>
<tr>
<td>Everyday</td>
<td>76</td>
<td>38</td>
<td>16083</td>
<td>39</td>
<td>29-47</td>
</tr>
<tr>
<td><strong>Eat Vegetables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>11</td>
<td>6</td>
<td>2252</td>
<td>6</td>
<td>2-9</td>
</tr>
<tr>
<td>1-3 (some days)</td>
<td>43</td>
<td>22</td>
<td>9872</td>
<td>24</td>
<td>17-32</td>
</tr>
<tr>
<td>4-6 (most days)</td>
<td>48</td>
<td>24</td>
<td>9350</td>
<td>23</td>
<td>17-29</td>
</tr>
<tr>
<td>Everyday</td>
<td>96</td>
<td>48</td>
<td>19332</td>
<td>47</td>
<td>38-57</td>
</tr>
<tr>
<td><strong>Do you smoke cigarettes?</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Every day</td>
<td>36</td>
<td>18</td>
<td>7783</td>
<td>19</td>
<td>11-27</td>
</tr>
<tr>
<td>Some days</td>
<td>8</td>
<td>4</td>
<td>1977</td>
<td>5</td>
<td>1-9</td>
</tr>
<tr>
<td>Not at all</td>
<td>152</td>
<td>78</td>
<td>30685</td>
<td>76</td>
<td>68-84</td>
</tr>
</tbody>
</table>
Results
Results

Percentage of Portsmouth Residents who are Obese

Compared to Portsmouth's Average*

2014 Community Health Survey
Portsmouth, Virginia

* The average is the 95% Confidence Interval 36-48% of Portsmouth Residents who reported a BMI of 30 and above.
Results

Percentage of Portsmouth Residents who Smoke Cigarettes

Legend
- Percentage of Population
  - <30%
  - 30% - 50%
  - 50% - 70%
  - 70% - 90%
  - >90%

Primary Roads
Water Bodies
Study Areas

Percentage of Portsmouth Residents who Smoke Cigarettes
Compared to Portsmouth's Average*

Legend
- Frequency of Occurrence
  - Below Average
  - Average
  - Above Average

Primary Roads
Water Bodies
Study Areas

* The average is the 95% Confidence Interval 14-24% of Portsmouth residents who reported smoking cigarettes.

2014 Community Health Survey
Portsmouth, Virginia
Results

Percentage of Portsmouth Residents whose Mental Health was Not Good

Compared to Portsmouth’s Average

Legend

<table>
<thead>
<tr>
<th>Percentage of Population</th>
<th>Primary Roads</th>
<th>Water Bodies</th>
<th>Study Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;20%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20% - 39%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40% - 59%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60% - 79%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;80%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* The average is the 95% Confidence Interval 16-26% of Portsmouth Residents who reported their mental health as not good 5 or more days out of 14 days.

2014 Community Health Survey
Portsmouth, Virginia
Next Steps

- Create Neighborhood Profiles
- Distribute survey results widely in the community
- Engage key stakeholders
- Track activities related to these Health priorities
- Resurvey in 2 years to track changes in these indicators
Questions and Comments