

# Survey Design and easier Excel Data Entry in Excel Quick Guide

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| Research vs. Public Health Practice                                                                                                                                                                                                                                                                                                   | <p><b>“Research”</b> means a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge.</p> <p><b>“Non-Research”</b> Non-Research intent is to identify and control a health problem or improve a public health program or service.</p> <p><b>“Surveillance”</b> Is the ongoing systematic collection, analysis and interpretation of health data, essential to the planning, implementation, and evaluation of public health practice, closely integrated to the dissemination of these data to those who need to know and linked to prevention and control.</p> <p><a href="https://www.cdc.gov/os/integrity/docs/cdc-policy-distinguishing-public-health-research-nonresearch.pdf">https://www.cdc.gov/os/integrity/docs/cdc-policy-distinguishing-public-health-research-nonresearch.pdf</a></p> <p><a href="http://aops-mas-iis.cdc.gov/policy/Doc/policy557.pdf">http://aops-mas-iis.cdc.gov/policy/Doc/policy557.pdf</a></p> <p>DPH Privacy Board Chair <a href="mailto:jennifer.miles@delaware.gov">jennifer.miles@delaware.gov</a> <a href="https://www.dhss.delaware.gov/dhss/dph/drpmain.html">https://www.dhss.delaware.gov/dhss/dph/drpmain.html</a></p> <p>Human Subjects Review Board (HSRB) <a href="https://www.dhss.delaware.gov/dhss/dph/files/drphsrbprocguidelines.pdf">https://www.dhss.delaware.gov/dhss/dph/files/drphsrbprocguidelines.pdf</a></p>                                                                          |                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                       | <p><b>What is the purpose of the survey?</b></p> <ul style="list-style-type: none"> <li>What is already known about the topic(s)?</li> <li>What (new) question(s) do you want to answer?</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <p><b>Who is your target population?</b></p> <ul style="list-style-type: none"> <li>Who is the underlying population at risk?</li> <li>What population are you able to interview?</li> <li>If there is no defined list of people at risk, what routine surveillance or public health activities can you modify to capture the information?</li> </ul> | <p><b>What new information do you want to get out of the survey?</b></p> <ul style="list-style-type: none"> <li>How many cases or exposed persons or individuals at risk are there?</li> <li>What sort of data summary do you expect to provide?</li> <li>How frequently do you expect to provide a data summary?</li> <li>What exposures were associated with illness?</li> <li>What do you already know about the topic?</li> <li>What do you <u>need</u> to know vs what is <u>nice to know</u>?</li> </ul> |
|                                                                                                                                                                                                                                                                                                                                       | <p><b>What medium is best?</b></p> <p><b>Considerations for the target population</b></p> <ul style="list-style-type: none"> <li>How tech-savvy is the target population?</li> <li>What contact information is available?</li> <li>Are open-ended or close-ended questions better?</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <p><b>Considerations for DPH staff</b></p> <ul style="list-style-type: none"> <li>How many staff are available to interview?</li> <li>How/where will data be entered?</li> <li>What software tools are available?</li> <li>What turnaround time is needed?</li> </ul>                                                                                 | <p><b>Considerations for Data Analysis</b></p> <ul style="list-style-type: none"> <li>How will you summarize the data?</li> <li>How often do you expect to summarize the data?</li> <li>Do you expect it to be fast-moving or high profile?</li> </ul>                                                                                                                                                                                                                                                         |
|                                                                                                                                                                                                                                                                                                                                       | <p><b>Paper Form + Excel Spreadsheet</b></p> <p><b>Pros:</b> Good for early, open ended interviews before there is a hypothesis; No special software needed; Easy to reuse a template; Easy to print and fill out on the phone or on site; Smaller training burden; Good basic tool for your toolkit</p> <p><b>Cons:</b> Need a to plan for data entry, management and analysis; No automatic skip patterns; Printing/dealing with paper copies can be cumbersome</p> <p><b>Epi Info 7 Desktop + data entry</b></p> <p><b>Pros:</b> Can take paper survey and build it in Epi Info; Skip patterns available; Can require questions; Data entry checks available; Analysis dashboards built in; Can easily export to Excel</p> <p><b>Cons:</b> Need to install software; Need to plan for training; Formatting questions can be cumbersome; Need to plan for data entry and management; Works best with one person doing data entry at a time; Multiple data entry feature is available, but cumbersome</p> <p><b>REDCap form + data entry</b></p> <p><b>Pros:</b> Can take a paper survey and build it in REDCap; Multiple users at a time can fill out a form with just a link (no account needed); Skip patterns available; Can require questions; Data entry checks available; Can easily export to Excel</p> <p><b>Cons:</b> Need a REDCap account to create/edit a form; Need to set user profiles according to roles; Need to plan for training; Need to plan for data management and analysis; Minimal built-in analysis tools</p> |                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Survey Question Types                                                                                                                                                                                                                                                                                                                 | <p><b>Open-Ended Questions</b></p> <ul style="list-style-type: none"> <li>Do not provide answer choices, respondents answer in their own words</li> <li>Good for probing interviews, especially in early stages before there is a clear hypothesis</li> <li>Need to train staff on how much info to record and enter</li> <li>Can be short or long</li> <li>Can be changed to close-ended questions as interviews are completed</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <p><b>Close-Ended Questions</b></p> <ul style="list-style-type: none"> <li>Respondents choose from yes/no or a list</li> <li>Can choose one or many</li> <li>Answers can be ordered or unordered</li> <li>Considerations for “other” or non-response options</li> </ul>                                                                               | <p><b>Pitfalls to Avoid</b></p> <ul style="list-style-type: none"> <li>“Double barreled questions”</li> <li>Not enough answer choices</li> <li>“Negative” questions</li> <li>Leading/Loaded questions</li> </ul>                                                                                                                                                                                                                                                                                               |
| Question Banks                                                                                                                                                                                                                                                                                                                        | <p><b>Considerations for Demographic Questions</b></p> <ul style="list-style-type: none"> <li>HHS data standards- Race, Ethnicity, Sex (<a href="https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=3&amp;lvlid=54">https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=3&amp;lvlid=54</a>)</li> <li>NIH examples- Sexual orientation and gender identity (<a href="https://dpcpsi.nih.gov/sgmro/measurement/questions">https://dpcpsi.nih.gov/sgmro/measurement/questions</a>)</li> <li>Avoid “othering” when possible</li> <li>Consider how answer choice order implies prioritization of groups</li> <li>Consider what groups are/should be included in answer choices- how this may harm non-included groups</li> <li>Balance how much detail is needed for the task at hand with how we can be inclusive?</li> </ul> <p><b>Clinical Questions:</b> By illness category; Yes/no/unknown + onset dates; <b>Testing Questions:</b> Test type, specimen collection date, test result, notes; <b>Exposure (From):</b> Where did they get their disease? <b>Exposure (To):</b> Who might they have exposed?</p> <p><b>Travel:</b> Where did they go and when? Flight information? Travel companions? What did they do on their trip?</p>                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Other Considerations                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Easing Survey Data Entry in Excel                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <ul style="list-style-type: none"> <li>Pilot testing- ideal but not always realistic</li> <li>User Acceptance Testing- at least some is required especially for skip logic</li> <li>Reading level and plain language the audience will understand</li> <li>Translation considerations for non-English speaking populations</li> </ul> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <ul style="list-style-type: none"> <li>Freeze Panes</li> <li>“Top Row” filters</li> <li>Variable/column labels</li> <li>Data validation</li> </ul>                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |