GenIC Clearance for CDC/ATSDR
Formative Research and Tool Development

Formative Evaluation and Message Testing of Antimicrobial Resistance Among Sandwich Generation Consumers

OMB Control No. 0920-1154

November 25, 2024

Supporting Statement A

Contact:
Rudith Vice
National Center for Emerging and Zoonotic Infectious Diseases
Centers for Disease Control and Prevention
1600 Clifton Road, NE
Atlanta, Georgia 30333
Phone: (404)718-7292
Email: nhr9@cdc.gov

Table of Contents

- **Goal of the study:** The purpose of this assessment is to understand the perceptions of antimicrobial resistance (AR) and preventative actions as well as the effectiveness of AR messages and terms with the priority sandwich generation consumer audience.
- **Intended use of the resulting data:** Findings will be used to inform both CDC's current AR communications as well as potential future communications efforts to increase awareness of AR and drive action to combat AR.
- **Methods to be used to collect:** An online survey and virtual focus groups.
- **The subpopulation to be studied:** Sandwich generation consumers: adults aged 40-59 who are both a caretaker of a child and of their parent(s).
- **How data will be analyzed:** Cross-tabulation of quantitative data and descriptive and thematic analyses of qualitative data.

1. Circumstances Making the Collection of Information Necessary

CDC requests approval for a new Gen-IC under OMB Control No. 0920-1154.

Information collection activities are limited to formative work that will result in the development of new or improved messages and communication.

Antimicrobial resistance (AR) occurs when germs like bacteria and fungi develop the ability to defeat the drugs designed to kill them. AR is an urgent, global public health threat, impacting the health of people, animals, and our shared environment. In 2019 alone, AR contributed to more than 4.95 million deaths worldwide. CDC reports that there are more than 2.8 million antimicrobial-resistant infections in the United States (U.S.) each year.[1] AR can affect anyone, and its impact extends beyond the healthcare system to the food supply, animals, and the environment. It is a complex problem that requires strong public health infrastructure, innovation, and collaborative global action across the One Health spectrum, including among healthcare providers, policymakers, public health professionals, the public, and others.

AR communications are complex and require a strategic approach based on up-to-date information. First, AR can be difficult to understand, and misperceptions abound (e.g., many wrongly believe it is people who develop resistance to antimicrobial drugs). Second, AR requires a "One Health" approach (i.e., it impacts humans, animals, and the environment and AR outcomes are influenced by many key players) and requires CDC and other organizations to communicate to a vast audience set, but there are disparities of knowledge, attitudes, and beliefs across audiences. Third, many consumers may believe the AR threat is not imminent; and still others may lack a sense of personal responsibility for a problem that is "too large."[2]

---

[1] CDC. Antibiotic Resistance Threats in the United States, 2019. Atlanta, GA: U.S. Department of Health and Human Services, CDC; 2019

[2] Capers, K. (n.d.). Communicating Antimicrobial Resistance with the Public: Effective Strategies and Considerations during a Pandemic [Slide show; PowerPoint Presentation]. HHS.gov. https://www.hhs.gov/sites/default/files/communicating-antimicrobial-resistance-public-strategies-considerations-pandemic.pdf

This data collection is informed by a several preceding evaluations including a secondary data analysis, a formative evaluation, and creative concept testing. Insights from these evaluations confirm that AR is a difficult and often-misunderstood topic, and more effective communications are needed to catalyze momentum and spur urgency within the populations who are most capable of combatting the emergence and spread of AR. Findings from previous formative evaluation and creative concept testing specifically have uncovered several important insights which have informed the design of the proposed data collection: 1) consumers are largely unfamiliar with the concept of AR and struggle to understand it and the terms used to describe it and 2) consumers are eager for clear solutions and concrete steps they can take to combat AR. It is also largely unknown where consumers are seeking and receiving information about AR, or if they are seeking out information about AR at all.

The proposed data collection will explore the knowledge, beliefs, and information needs related to AR among a priority sandwich generation audience and how they react to messages and concepts about AR. The sandwich generation is made up of adults aged 40-59 having a parent 65+ and are raising a minor child or supporting a grown child—i.e., those “sandwiched” between caring for aging parents and kids. According to public opinion research, 14% of adults in their 40s and 50s have already cared for an aging parent or elderly family member, and nearly 70% say they likely will in the future.[3] This audience not only makes decisions for their own health but are also often responsible for the health decisions of loved ones, which is why they have been prioritized for outreach. The goal of the data collection is to both inform CDC’s existing AR communications and unearth insights to guide a potential future AR communications with this audience.

2. Purpose and Use of Information Collection

The primary overarching objective of this data collection is to explore the knowledge, attitudes, and behaviors of a priority sandwich generation audience about AR and their reactions to messages about AR. This data collection is intended to fill gaps in knowledge identified through previous evaluations and creative concept testing. The results from the data collection will be used by CDC to inform both CDC’s current AR communications as well as potential future communications efforts to increase awareness of AR and drive action to combat AR.

KRC Research, a contracted research firm, will conduct all data collection related to this initiative, under the supervision of CDC. KRC’s data collection will include recruiting and screening sandwich generation consumers into the project and conducting an online survey of 800 individuals and 8 focus groups (4 with college-educated adults and 4 with non-college-educated adults). The survey will allow CDC to gain a large-scale and precise quantified measure of important metrics for this priority audience. It also enables the possibility of more nuanced message testing, subgroup analysis, and a greater ability to track changes in sentiment over time with this audience. To complement the survey, KRC will conduct focus groups with a new set of sandwich generation consumers (focus group participants will not be recruited from survey respondents). The focus groups will enable the testing of a revised creative concept and messages (Attachment 6) based on feedback from previous creative concept testing and will assess the unique AR concerns and challenges for this audience as caregivers. The focus groups will also

---

[3] Pew Research Center. The Sandwich Generation: Rising Financial Burdens for Middle-Aged Americans, January 30, 2013. Washington, DC.

evaluate messaging preferences and information needs and sources. This data collection will happen once; it is not recurring.

Audience Rationale

This data collection involves one primary audience: sandwich generation consumers. These are full-time U.S. residents aged 40-59 who are both a caretaker of a child and of their parents. This audience has been identified because they have the power to play an important role in slowing the spread of AR.

Overall, consumers primarily contribute to the fight against AR through a host of activities like keeping hands clean, getting vaccinated, preparing food safely, practicing healthy habits around animals, using antimicrobials appropriately, and more. Sandwich generation consumers have specifically been chosen because they make decisions for their own health as well as for their loved ones. As such, reaching this audience has the potential to extend infection prevention messages and behaviors *beyond* the individual to a broader swath of the American public. A formative evaluation previously conducted by KRC Research among parents and caregivers (key sandwich generation audiences), also revealed that these audiences may be uniquely receptive to communications or calls to action related to the impact of AR for themselves and their families.

Description of Instruments

This data collection involves an online survey and focus groups. The instruments involved include the survey (Attachment 1), screening questionnaire (Attachment 2), consent form (Attachment 3), and focus group moderator guide (Attachment 4). The screening questionnaire and screening portion of the survey have two primary purposes: to ensure the proper qualifications for those who participate in the data collection and to ensure a balance of included participants based on demographic and audience-specific variables. The consent form is designed to ensure qualified participants are aware of key information about the data collection, such as privacy and the voluntary nature of their engagement. The focus group guide will be used by a trained KRC Research moderator to direct the conversation and keep it on track.

Consequences of Not Collecting Information

This data collection is necessary to ensure CDC communications initiatives are based on up-to-date information gathered directly from the intended audience. If this collection were not to be carried out, CDC would not have timely, nuanced, and center-relevant information about the knowledge, attitudes, beliefs, and needs of this priority audience regarding AR. Communications efforts that are not based on research may be ineffective and the CDC resources used may not be used efficiently, may not reach intended populations, or may reach populations with uninformed outreach strategies. By conducting this data collection, CDC will have a much clearer understanding of what this audience knows about AR, how they relate to the issue, how they react to existing AR-related messages, and how CDC can best empower them to fight AR.

3. Use of Improved Information Technology and Burden Reduction

The recruitment, screening, and data collection for the survey will all be self-administered and conducted online, allowing respondents to complete the screening and survey at their convenience, in the comfort and privacy of their homes.

Focus groups will be also conducted online through web-based platforms, meaning that participants will not have to download anything to their personal devices (participants need only to have an internet connection) and participants, CDC, and its contractor KRC Research do not need to travel. All focus groups will be conducted by professional moderators from KRC Research, a contracted company. All focus groups will be audio and video recorded to ensure participant responses are captured accurately and transcribed. Questions included in the discussion guide has been limited to only those relevant to the target audience to reduce burden on respondents.

4. Efforts to Identify Duplication and Use of Similar Information

This data collection is preceded and strategically informed by a comprehensive secondary research analysis, a formative evaluation, and creative concept testing conducted by KRC Research, a contracted research firm, in collaboration with NCEZID. The purpose of the secondary research was to evaluate existing communications and opinion research on the topic of AR and to assess gaps in collective knowledge about audiences' own knowledge, attitudes, beliefs, and behaviors related to AR. Following the secondary research, a formative evaluation was conducted with priority audiences (consumers, healthcare professionals, health policy influencers) to assess their perceptions and knowledge related to AR. Building off the formative research, several creative concepts about AR were tested with consumers and healthcare professionals to assess how they might react to AR-related messages. The proposed data collection addresses the opportunity identified in these previous evaluations to motivate a key audience, sandwich generation consumers, to act on AR. The data collection will assess this audience's perceptions of AR and reactions to messages as well as address areas of inquiry that have not been so far addressed or require confirmation prior to launching a potential communications campaign.

5. Impact on Small Businesses or Other Small Entities

This data collection will not involve small businesses.

6. Consequences of Collecting the Information Less Frequently

This is a one-time information collection.

7. Special Circumstances Relating to the Guidelines of 5 CFR 1320.5

This request fully complies with the regulation 5 CFR 1320.5.

8. Comments in Response to the Federal Register Notice and Efforts to Consult Outside the Agency

A. A Federal Register notice was published for this generic package on July 22, 2022, Vol. 87, No. 140, pp. 438360. No public comments were received.

B. KRC Research, a contracted research firm, has been consulted in the development of the research plan, sampling parameters, and data collection instruments. Under the supervision of CDC, KRC will ultimately conduct all data collection related to the proposed evaluation. Data collection will include recruiting and screening participants into the formative research and conducting a survey of 800 sandwich generation consumers and 8 focus groups with this audience (4 with college-educated adults, 4 with non-college-educated adults).

9. Explanation of Any Payment or Gift to Respondents

Survey respondents will be compensated for their willingness to participate in the data collection. All such incentives are managed by the vendor that maintains the panel itself. There are different types of incentives offered. Incentive amounts are variable and determined based on a variety of factors including the time that a respondent will dedicate to the response, level of effort required, the difficulty of reaching a given profile of respondent, and the urgency of the response. The incentive options allow panelists to redeem from a large range of gift cards, points programs, charitable contributions, and partner products or services. These panel incentives and their fulfillment by panel providers is a standard procedure for panels of this type.

Focus group participants will receive a monetary incentive of $75 for their participation. Such an incentive is a standard practice in the market research industry and helps to ensure efficient recruitment and participation among the qualified and scheduled participants. The incentive is also intended to offset the cost of personal or professional time taken to participate. -

10. Protection of the Privacy and Confidentiality of Information Provided by Respondents

CDC has reviewed this submission and determined that the Privacy Act does not apply.

KRC Research, a contracted firm, will manage recruitment and execution for this evaluation, and PII will not be transmitted to anyone at CDC.

<u>For the survey</u>, members of a consumer panel will be screened in the course of taking the survey itself (Attachment 1). Screening questions have been limited to those only absolutely necessary and worded to avoid collecting sufficient information from respondents that it would be possible to identify them through their answers. Data collection will also be conducted completely independently of any PII (e.g., a participant’s name and contact information will not be tied to their responses to the survey). The recruitment panel provider will exclusively manage participant’s PII which they use to verify the identities of their panel members and distribute incentives; CDC will never receive or have access to any PII from participants. Each respondent opts in to participate in surveys and can opt out of either the study or panel participation and communication at any time.

<u>For focus groups</u>, the screening instrument (Attachment 2) will be used to evaluate the qualification of potential participants based off pre-determined inclusion criteria. The screening instrument will include information about privacy and confidentiality; only those individuals who agree to these terms will qualify for participation.

After an individual agrees to the terms and has qualified, they will be given a separate consent form (Attachment 3) that reiterates privacy and confidentiality policies. The participant will be required to sign the form (electronic submission is allowed) and deliver a copy to the recruiting and data collection team. The participant will be reminded that participation is entirely voluntary.

Once participants have signed the consent form, the recruiting team will collaborate with them to confirm their focus group slot. During the introduction to each focus group, the trained moderator will review key parts of the privacy and confidentiality agreement, including:

1. The discussion is completely voluntary. Participants do not have to answer any questions they are not comfortable with.
2. Only first names or preferred names will be used during the conversation, and nothing participants say or do will be reported in association with their names.
3. Discussions will be audio and video recorded and notes will be taken during the discussion. All information, notes, and files will be kept on a secure server. Only KRC Research and the core CDC team that manages the evaluation will have access to these files. Files will be deleted within 30 days of CDC approval of the final report of findings.

11. Institutional Review Board (IRB) and Justification for Sensitive Questions

Institutional Review Board (IRB)

NCEZID's Human Subjects Advisor has determined that information collection is not research involving human subjects. IRB approval is not required (Attachment 5).

Justification for Sensitive Questions

All the questions asked in the survey and focus groups will be non-sensitive in nature and focus primarily on perceptions of AR and reactions to messages about AR.

In the screening and quota section of the survey, we are only including the minimum answer categories for the race and ethnicity question because the potential benefit of collecting detailed race and ethnicity data does not justify the additional:

- Burden to the agency or the public, and/or
- Risk to respondents' privacy or confidentiality.

All participants will be informed that they need not answer any question that makes them feel uncomfortable or that they simply do not wish to answer.

12. Estimates of Annualized Burden Hours and Costs

A. Estimated Annualized Burden Hours

The total estimated burden is 302 hours. Table 1 describes the burden associated with the information collection. The paragraphs below describe the assumptions built into the burden table.

Survey

One (1) online survey of 800 individuals who qualify as a member of the sandwich generation. An estimated additional 400 individuals will be screened out early in the survey due to ineligible screening responses. For those who successfully screen in and complete the survey, the survey will take 10 minutes. For those who begin the survey and screen out, the survey will take 3 minutes.

Focus Groups

Eight (8) focus groups will be conducted with sandwich generation consumers: four (4) with college-educated adults and four (4) with non-college-educated adults. Eight (8) participants will be approved for participation per focus group (64 total participants). Based on experience, approximately 10 individuals will be screened for every one scheduled (640 screened). Focus groups last 90 minutes; screening takes five (5) minutes.

Table 1. Annualized Burden

Type of Respondent	Form Name	No. of Respondents	No. Responses per Respondent	Avg. Burden per response (in hrs.)	Total Burden (in hrs.)
Consumers *(1 Survey)*	Survey (Screen Out) *Attachment 1*	400	1	3/60	20
	Survey (Complete) *Attachment 1*	800	1	10/60	133
Consumers *(2 FGs)*	Screener *Attachment 2*	640	1	5/60	53
	Focus Group Guide *Attachment 4*	64	1	1.5	96
Total					**302**

LB. Estimated Annualized Burden Costs

The total estimated cost burden is $6,980.

Cost estimates have been calculated for the consumer using the U.S. Bureau of Labor Statistics (BLS) May 2023 National Occupational Employment and Wage Estimates. The median hourly wage for all adults is $23.11 and has been used to estimate the cost burdens.

Table 2. Cost Burden Associated with Information Collection

Type of Respondent	Form Name	Total Burden Hours	Hourly Wage Rate	Total Respondent Costs

Consumers *(1 Survey)*	Survey, screen out	20	$23.11	$462
	Survey, complete	133	$23.11	$3,074
Consumers *(2 FGs)*	FG Screener	53	$23.11	$1,225
	FG Guide	96	$23.11	$2,219
Total				**$6,980**

13. Estimates of Other Total Annual Cost Burden to Respondents or Record Keepers

There are no costs to respondents other than their time to participate.

14. Annualized Cost to the Government

The annualized cost to the Federal Government to collect this information is $201,347.45. Table 3 describes the cost in more detail.

All data collection activities will be conducted by KRC Research, a contracted firm. KRC's work includes recruitment, screening, scheduling, management of consent forms, conducting data collection, transcription and data cleaning, and reporting. Contractor costs cover the work of an existing team working with CDC on this initiative. Contractor expenses are based on competitively bid prices for panel recruitment / screening and transcription, plus cost of incentives.

Oversight and review of all materials and reports will be conducted by 3 federal government employees who are overseeing the project. Their work will include providing oversight to KRC Research on the purpose and objectives of the project; guidance and feedback on recruitment, screening, and data collection materials; entering the project materials into CDC's STARS system for project determination; meeting regularly with KRC Research staff to discuss the project's progress and answer any questions; reviewing transcripts, data, and reports; and sharing topline findings with CDC staff so they can use the findings to strengthen communication messages.

The estimate includes 130 hours for Associate Director for Communications, 205 hours for Health Communication Specialist, and 520 hours for Health Communication Specialist Communication Support. Estimated federal employee and contractor task cost is tabulated based on these employees' current hourly wages (locality-adjusted GS pay table for Atlanta-area workers):

- Associate Director for Communications (CDC Project Officer): 130 hours @ $62/hour = $8,060
- Health Communication Specialist: 205 hours @ $70.13/hour = $14,376.65
- Health Communication Specialist Communication Support (CDC Co-Principal Investigator): 520 hours @ $88.29/hour = $45,910.80
- Total = $68,347.45

Table 3. Estimated Annualized Cost to the Government per Activity

Cost Category	**Estimated Annualized Cost**
Contractor personnel costs: costs to recruit, conduct survey and focus	$90,000

groups, analyze data, and report on results	
Contractor expenses: recruitment panel, transcription, incentives	$43,000
Federal government personnel costs: oversight, report review	$22,436.65
Federal government contractor costs: oversight, report review	$45,910.80
Total	$201,347.45

15. Explanation for Program Changes or Adjustments

No change in burden is requested as this is a new information collection.

16. Plans for Tabulation and Publication and Project Time Schedule

This initiative is expected to take 12 weeks from start to finish and will be split into two sequential phases. First, the survey will be fielded and the data analyzed. Once the results from the survey have been reviewed, recruitment will begin in order to conduct the focus groups. A timeline is available in Table 4.

Table 4. Project Time Schedule for Survey an Focus Groups

Activity	**Time Schedule**
Field survey	2 weeks, beginning immediately after gen-IC is approved
Disseminate and review survey results	3 weeks, after survey data collection ends
Recruit for focus groups	4 weeks, beginning after survey results have been reviewed
Conduct focus groups	1 week, after recruitment is complete
Transcription, analysis, report development	2 weeks, after data collection ends
Disseminate results/reports	As soon as summary reports are complete

Survey data will be tabulated into crosstab data files for easy interpretation of results.

Focus groups will be audio and video recorded for aid in reporting and analysis. Audio files will be transcribed verbatim in Microsoft Word and used for reporting. (Deidentified transcripts will be delivered to NCEZID.) Results will be used to develop a report with an assessment of findings and recommendations for targeted messaging strategies for CDC communications with this audience.

17. Reason(s) Display of OMB Expiration Date is Inappropriate

The display of the OMB expiration date is not inappropriate.

18. Exceptions to Certification for Paperwork Reduction Act Submissions

There are no exceptions to the certification.

Attachments

1. Survey
2. Screener
3. Consent Form
4. Focus Group Guide
5. Human Subjects Determination
6. Message and Concept Testing Stimuli