EVALUATING COMMUNITY RISK REDUCTION HOME SAFETY VISIT PROGRAMS: RECOMMENDATIONS FOR BEST PRACTICES

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EXECUTIVE SUMMARY

An important part of Community Risk Reduction programs, home safety visits, has been singled out as one of the more effective measures that the fire service can take to improve public safety. A key component of the CRR home visiting programs is the provision of smoke alarms. How to best evaluate the home safety visit component of CRR is not yet well established. Vision 20/20 partnered with the Johns Hopkins Center for Research and Policy to address this gap in our understanding. The specific aims of this project were to:

Aim 1- Conduct a series of key informant interviews with CRR national leaders, fire department (FD) leadership and prevention staff, who have experience in the delivery of CRR home visiting programs to learn about current practices and suggestions for improving the evaluation of CRR home visiting programs.

Aim 2- Synthesize key informant interview data and generate recommendations on the following five evaluation metrics: 1) Selection of Areas for CRR Home Visits; 2) Training Fire Department Personnel; 3) Partnerships; 4) In-Home Data Collection; and 5) Program Evaluation.

Data to address these aims came from 10 key informant interviews with a variety of leaders in CRR programs and in fire departments, as well as from a review of 10 relevant documents provided by Vision 20/20. A total of 27 specific recommendations across the five evaluation metrics emerged from the interviews.

In summary, respondents frequently commented on how firefighters who have been in a locale for a long time really know their communities well; as such, they are a good source of information about where and what the needs are as well as how best to meet those needs. Each of our recommendations then should be considered within the context of a specific fire department, considering the department’s current CRR home visit activities, needs, and resources, and the community's cultural context.

One fundamental issue regarding CRR home visiting that came up in the interviews is whether providing fire prevention education is something every firefighter should do and do well. If fire prevention is indeed within the scope of activities for all firefighters, and an activity that needs to be done well and properly evaluated, then proper resources, training, and social supports are needed to implement this vision.

Respondents also emphasized the importance of communicating the value of systemically collecting evaluation data, and the need to make whatever tools are developed to evaluate home safety visits simple and straightforward. Feeding back timely information from evaluation data collection efforts to those who collected the information would be
helpful. We heard many calls for a culture change regarding data and evaluation, and innovative strategies to achieve this change are needed.

We found that a new evaluation guide may not be necessary because in addition to these existing documents, a comprehensive evaluation guide may soon be released by the federal government. Nevertheless, interviewees freely shared helpful ideas on creating and disseminating an evaluation guide, should that be necessary in the future.

Through this work we also identified several areas for future research. First, a greater emphasis on evaluating the implementation of home visiting programs is hampered by the lack of data documenting the home visiting process in its entirety. Second, there is a lack of empirical data on the benefits in terms of lives saved and costs/return-on-investment for different interventions that are done in the home. Third, it is critical that in developing standard evaluation tools, there is input from key stakeholders and constituencies in the fire service. Fourth, there is also a need for a compendium of evidence based practices for specific in-home fire prevention services. Finally it would be beneficial for an independent organization to convene a work group of leaders and front-line personnel from the fire service to further explore the issues raised in this report.
I. INTRODUCTION

Fire departments in the United States (U.S.) respond to approximately 374,000 residential fires each year.\(^1\) Residential fires are responsible for more than 2,000 deaths every year, and in 2009 with 2,430 deaths, the mortality rate per 100,000 population was 0.79.\(^2\) Fires are costly in terms of lives and dollars. The lifetime cost generated in a single year by hospitalizations due to fires and burns is an estimated $1.2 billion.\(^3\) Fire and other burns were responsible for 381,012 medical visits in 2009, almost a quarter of which (89,750) were experienced by children under 15 years.\(^4\) Injuries due to fire also disproportionately affect those with lower incomes, living in older or substandard housing or in close proximity to vacant buildings.\(^5\)\(^6\)

Building on existing efforts to reduce fire loss in the U.S., the non-profit Institution of Fire Engineers (IFE), USA Branch, established the Vision 20/20 Project in 2007 with a commitment to the development and implementation of national strategies for fire loss prevention. One of Vision 20/20’s key strategies is the dissemination of Community Risk Reduction (CRR) programs as a means to reduce fire loss. Community Risk Reduction (CRR) is the identification and prioritization of risks followed by the coordinated application of resources to minimize the probability of occurrence and/or the impact of unfortunate events.\(^7\)

CRR is not a new concept for the fire service. For years, fire departments have been involved in some form of CRR through building inspections and public education. But the CRR concept needs to be applied in a focused manner, and truly integrated into the mission of the fire department. The process of CRR often unfolds in a predictable sequence of: (1) identifying fire risks at the operational level (preferably by fire station response area); (2) prioritizing the risks to be addressed; and (3) coordinating elements of emergency response with preventive tactics that mitigate risks. CRR has received international attention through efforts in the United Kingdom, Australia, New Zealand and elsewhere. Data from these jurisdictions suggest they can lead to a significant reduction in fire deaths and fire incidents.\(^8\)

An important part of CRR programs, home safety visits, has been singled out as one of the more effective measures that the fire service can take to improve public safety. A key component of the CRR home visiting programs is the installation of smoke alarms. Smoke alarms have been proven to substantially reduce the risk of death in the event of a fire, and increasing their use is one of the Healthy People 2020 objectives for the United States.\(^9\) Almost two-thirds (63\%) of all residential fire deaths between 2003 and 2006 occurred in homes without working smoke alarms.\(^10\) How to best evaluate the home safety visit component of CRR is not yet well established. Vision 20/20 partnered with the Johns Hopkins Center for Research and Policy to address this gap in our understanding.
The specific aims of this project were to:

**Aim 1** - Conduct a series of key informant interviews with CRR national leaders, fire department (FD) leadership and prevention staff, who have experience in the delivery of CRR home visiting programs to learn about current practices and suggestions for improving the evaluation of CRR home visiting programs.

**Aim 2** - Synthesize key informant interview data and generate recommendations on the following five evaluation metrics: 1) Selection of Areas for CRR Home Visits; 2) Training Fire Department Personnel; 3) Partnerships; 4) In-Home Data Collection; and 5) Program Evaluation.

This report describes the methods we used to achieve these aims as well as our recommendations for evaluating CRR home visit programs in the future. While the scope of work and methods used were collaboratively developed between the Johns Hopkins Center for Injury Research and Policy (JHCIRP) and Vision 20/20, the data collection, analysis, and resulting recommendations reflect the work of the JHCIRP team. The work described here was reviewed by the Johns Hopkins Institutional Review Board (IRB), which determined that it was not human subjects research.
II. METHODS

Aims 1 and 2: Key Informant Interviews

The purpose of the interviews was to learn about CRR generally, and CRR home visiting programs specifically, addressing Aims 1 and 2. Vision 20/20 provided faculty from JHCRIP a list of potential interviewees and their email addresses. The list of individuals included national and local leaders with knowledge of CRR as well as those with experience implementing home visiting programs at the local level. We determined that six key informants selected from this list could reflect a good representation of the varying perspectives needed: a) those with a leadership perspective on CRR and specifically home visiting programs, b) local leaders who have experience with implementing home visiting programs from one volunteer, one paid, and one combination fire department, and 3) leaders from two fire departments considered exemplars for CRR. We supplemented this sample with recommendations by interviewees to interview other key informants who were not on the original list, but who could provide a unique perspective or additional information. Within the project timeline, we were able to conduct interviews with all but one key informant (agreed, but unable to schedule), one exemplar fire department (no response), and the volunteer fire department (agreed, but unable to schedule). On recommendation from two of the interviewees, we interviewed one additional key informant and a local leader from a primarily volunteer fire department (90% volunteer) for a total of ten completed interviews. Five people who were recommended by the original interviewees were not interviewed because we had reached data saturation and were no longer obtaining any new or unique information.

Based on the literature and information received from Vision 20/20, we developed an interview guide consisting of detailed questions about the planning, implementing, reporting, and evaluation of CRR home visiting programs (see Appendix 1). Vision 20/20 reviewed and provided feedback on the interview guide, and modifications were made to create a final version. Emails were sent to all of the potential interviewees and interviews scheduled for those who agreed. Two members of the project team together conducted each of the interviews, which on average lasted approximately one hour. All interviews were audio recorded and transcribed, with the interviewees’ permission, to ensure data quality and to facilitate data analysis.

The ten transcripts were divided equally between two study teams consisting of two members each (Andrea Gielen with Wendy Shields, and Keshia Pollack with Maryanne Bailey). The two members of each team independently reviewed the same five transcripts and identified common themes that pertained to the five evaluation metrics: 1) Selection of Areas for CRR Home Visits; 2) Training Fire Dept Personnel; 3) Partnerships; 4) In-Home
Data Collection; and 5) Program Evaluation. These themes included the barriers to and facilitators for evaluating home visiting programs as specified by the interviewees. The two members of each team then compared the key themes they each identified and reached a consensus on the final themes under each metric. Then they jointly developed a set of recommendations from what was summarized in the themes. During this process, consideration was also given to what the literature supports as best or promising practices for home visiting programs and program evaluation. All themes and recommendations from the two teams were synthesized into one summary document of recommendations specific to creating a program evaluation guide (see Results and Recommendations). Further recommendations from the interviews, beyond the evaluation metrics, are included in Appendix 2.
III. RESULTS AND RECOMMENDATIONS

Key Informant Interviews

The interviews that were conducted with a diverse group of key informants and front line personnel from the fire service generated several recommendations for interpretation of, and taking action on each of the evaluation metrics. The 27 recommendations generated by this work are listed below by each evaluation metric; they are not in priority order.

Evaluation Metric 1: Selection of Areas for CRR Home Visits

1. Acknowledge that there is variation in how fire departments identify their high-risk homes and that there is value in the insider knowledge of firefighters who have been on the front lines.
2. Communicate the added value of systematic approaches to supplement this insider knowledge, and offer specific easy-to-use guidance on assessing risk.
3. Continue responding to community requests after a fire event to take advantage of the heightened interest by communities.
4. Consider special targeting and needs of vulnerable populations such as communities of immigrants, those with hearing loss, and older adults.

Evaluation Metric 2: Training Fire Department Personnel

5. Educate everyone about the value of data, using real world examples of the impact of data on telling your story, and for garnering resources and support.
6. Agree on common data elements that everyone can collect and that can be aggregated across departments.
7. Use people in leadership positions to provide training and facilitate culture change regarding the importance of data and how to use it effectively.
8. Consider training people for specific tasks in the home to increase quality and consistency in data collection.
9. Agencies funding CRR should require training as a component of grant funding.
10. Educate on where smoke alarms should be installed and how to inform residents’ of its features (e.g., to handle nuisance alarms).
11. Use shadowing for field experience as part of the training.
12. Identify firefighters who are interested in prevention to train for home visits versus those with an interest in only suppression activities, if possible.

Evaluation Metric 3: Partnerships

13. Provide ideas for partnerships – any service organization that goes into homes could be an important partner (e.g., Meals on Wheels, nurse and senior home visiting programs) in addition to other potential partners in private and public sectors.
14. Have fire service engage with other agencies that provide social programs and cross-refer to each others’ services.
15. Describe what resources and plans need to be in place to make a successful partnership to avoid problems in implementation (e.g., understand your partners’ population).

**Evaluation Metric 4: In-Home Data Collection**

16. Highlight the importance and use of data for local and national purposes (can help to show the impact and importance of CRR).
17. Affirm the subjective value of these programs to the community (e.g., positive responses from residents) and firefighter appreciation of prevention.
18. Simplify and streamline data to be collected and methods of data collection, but be flexible (e.g., use technology if you’re comfortable with it, but can also use paper and pencil).
19. Provide incentives and reinforcement for accurate and timely data collection (e.g., leadership involvement).
20. Find effective and efficient ways of collecting follow up data.
21. Designate one person to be solely responsible for collecting data in the home, while someone else installs smoke alarms and provides appropriate educational messages and materials.
22. Maximize accurate and complete data entry by using electronic devices and real time data entry that can be checked by someone in a remote location for quality control.
23. Review run data to look for changes in causes of fires – proxy for possible impact of education on behavior change of residents.

**Evaluation Metric 5: Program Evaluation**

24. Let fire services know that they can do longer term analyses and how to do that; consider partnering fire departments and other agencies that have done such analyses with those that have not (e.g., a mentoring program).
25. Collect anecdotal stories of residents’ satisfaction with the program.
26. Following-up 6 months after the initial home visit is ideal, recognizing that it takes resources: time, staffing, etc. However, doing so can help measure behavior change and impact. Consider doing in person or mailing a survey.
27. Surveying about process measures of the visit can be done by leaving a survey with a self-addressed, stamped envelope with the resident at the end of the home visit. The language and literacy level of the audience should be considered when developing the materials that will be left behind after a visit.
28. Evaluation measures should address both impact and outcome measures, and measure both short term and long term effects.
IV. CONCLUSIONS

To our knowledge, this was the first effort to systematically collect information from fire service personnel on how to evaluate CRR home visit programs. Through this effort, we collected valuable information from a variety of frontline members of the fire service, representing exemplar, paid, and combination departments, from various parts of the country. Home safety visit programs that involve firefighters and community partners traveling door-to-door to provide fire prevention education and install smoke alarms where needed have been implemented to prevent injuries and deaths resulting from residential fires. However, how best to evaluate home visiting programs to maximize community participation and prevention remains uncertain. Results from this project shed some new light on how to approach strengthening the evaluation of CRR home visiting programs.

First, several respondents said it best when they told us to “make evaluation simple and straightforward to do.” Making whatever tools are developed to evaluate home safety visits simple and straightforward will help achieve buy-in. Respondents also emphasized the importance of communicating the value of systemically collecting evaluation data. Many individuals in the fire service do not appreciate the need for solid evaluation data. Feeding back timely information from evaluation data collection efforts to those who collected the information would be helpful. We heard many calls for a culture change regarding data and evaluation, and innovative strategies to achieve this change are needed.

Second, the information we learned from this study generated salient and pragmatic recommendations; however, they all will not be equally relevant for every fire department across the country. Respondents frequently commented on how firefighters who have been in a locale for a long time really know their communities well; as such, they are a good source of information about where and what the needs are as well as how best to meet those needs. Each of our recommendations then should be considered within the context of a specific fire department, considering the department’s current CRR home visit activities, needs, and resources, and the community’s cultural context.

Third, respondents noted that the promotion of CRR programs implies that fire departments exist not only to respond to emergencies after the fact, but also to prevent or reduce the effects of their occurrence in the first place. CRR allows the fire service to act proactively as a risk management entity. One fundamental issue regarding this proactive approach that came up in the interviews is whether providing fire prevention education is something every firefighter should do and do well. This is a debate in the field that needs to be solved, and if the decision is that fire prevention is indeed within the scope of activities for all firefighters, and an activity that needs to be done well and properly evaluated, then proper resources, training, and social supports are needed to implement this vision.
Several respondents emphasized that using technology (e.g., iPads) to educate residents by showing videos on effective fire prevention behaviors, would reduce the burden on field personnel to act as health educators. There is a sentiment among some frontline fire personnel that being health educators is not a role for firefighters, but if they were to continue in this role, they would benefit from having some useful tools.

**Thoughts on an Evaluation Guide**

Although our team collected valuable information on the evaluation metrics, we also heard several of the interviewees caution us about whether it is necessary to develop a new evaluation guide. During our discussions, we learned about several other existing guides, but one in particular warrants further exploration. The CDC/USFA CRR guide, developed several years ago, supposedly already outlines how to evaluate CRR, including home visiting programs. Unfortunately, the report has not been publically released; therefore, we were unable to confirm its content. Once released, it would be worthwhile to compare its content and scope to the recommendations provided in this report to ascertain its utility as a stand-alone document and explore how what we learned here can be integrated. For instance, if the CDC/USFA CRR guide does not fully explore how to evaluate the home visiting component of CRR, it will be important to determine if other existing resources would be helpful, including whether and how the Vision 20/20 online course can complement what is available in the guide. Generally speaking, respondents we spoke with felt that it is important to communicate what is already known about this topic in order to guide the work of fire service prevention activities and the development of appropriate tools.

If a new evaluation guide is developed, several respondents raised questions about where the guide would be housed for people to view it. Recommendations were put forth to consider a host organization (possibly USFA) to store and disseminate training materials, data collection materials, evaluation materials, etc. Furthermore, USFA may consider becoming a repository for these types of materials, putting them on their website for easy access.

We also received information about how to best format an evaluation guide. One common theme shared with us was a need to solicit input from the intended audience before committing to the guide’s content and format. It is necessary to do the formative work and speak with the potential end users in the fire service before creating any materials. In addition, we heard many respondents describe a need to produce the guide in multiple formats (e.g., online, print, CD) so that it can be widely disseminated and accessed. We heard from some individuals that it would be useful to provide brief training videos via a CD or YouTube to demonstrate what is recommended in the guide. By having a standardized video, there would be continuity in the type of information that is shared and how it is delivered.
Unanswered Questions and Future Actions

Through this work, we also identified several areas for future research. First, a greater emphasis on evaluating the implementation of home visiting programs is hampered by the lack of data on what actually is happening in terms of implementation – who is doing what, where, when, and how? There is a need for more research that documents the home visiting process in its entirety – from when a firefighter requests to enter the home through evaluation of behavior changes related to the in-home visit. Identifying specific evaluation measures to determine the impacts of home safety visit programs was beyond the scope of this project. However, based on our work, it seems that with sufficient resources future impact evaluations should include an assessment of fire incidence and injuries, which could be done before and after a home visiting initiative in the same community as well as by comparing homes that were visited and not visited. Importantly, such evaluations should also determine changes in knowledge and attitudes as well as whether the safety practices taught during the initial home visit were adopted and sustained over time.

Second, there is a lack of empirical data on the benefits in terms of lives saved and costs/return-on-investment for different interventions that are done in the home (e.g., long life batteries, smoke alarms on every level, educational services addressing multiple hazards). Obtaining data on costs and benefits would help the fire service document the value of CRR home visits, especially during a time when cities are seeking ways to reduce costs, and the budgets of fire departments are often under scrutiny.

Third, it is critical that in developing standard evaluation tools there be input from key stakeholders and constituencies in the fire service. Engaging these key stakeholders (such as front line firefighters who provide CRR services) would provide an opportunity for them to provide input about the right measure to collect, how best to collect them, etc. Without early buy-in from those directly affected by a new set of program activities, there is great risk that the activities will not be completed as intended. In addition, these key stakeholders have unique expertise based on their experience that will enrich the planned activities, whether those are specific to program implementation or evaluation. With regard to evaluation in particular another key stakeholder group are those who will receive and use the data. Their input early on will help to make sure the programs are collecting only those data that will have real utility for future program planning and for demonstrating the worth of the program.

Fourth, we also identified a need for a compendium of practices, supported by the evidence, for specific in-home fire prevention strategies. For example, firefighters teach families about escape plans; there is no empirical data regarding the effectiveness of this strategy. Given the need for efficiency and effectiveness in programming, especially in tight financial times, evaluation research that demonstrates what provides the best return on investment for injury prevention and fire losses is critically important.
Finally, it would be beneficial for an independent organization to convene a work group of leaders and front-line personnel from the fire service to further explore the issues raised in this report. By gathering these key stakeholders, valuable input can be collected and possible consensus achieved regarding best practices and recommendations for conducting and evaluating home safety visit programs.
REFERENCES


7 V20/20- National Strategies for Fire Loss and Prevention.


Appendix 1: Community Risk Reduction Home Visiting Program Interview Protocol

(The questions included in this protocol will serve as a general guide for the interviewer. Only those questions relevant to the interviewee’s position and role with home visiting programs will be asked).

1. Prior to starting the interview
   1a. Read oral consent form.
   1b. Answer any questions and proceed with interview only with participant’s consent.

2. Background (for both Key Informants and Fire Department Personnel)

   As you may know, Community Risk Reduction or CRR is the identification and prioritization of risks followed by the coordinated application of resources to minimize the probability or occurrence and/or the impact of unfortunate events. Within the fire service context, this means that fire departments not only respond to emergencies after the fact, but also work to prevent or reduce the effects of their occurrence in the first place. Conducting home safety visits is one component of CRR. Today I will be asking you questions about the home visiting program(s) you are familiar with or involved with.

   2a. Tell me about your position as [title] within [name of organization].

   2b. How does your work relate to home visiting programs?

      • Is/are the home visiting program(s) you’re involved with part of a CRR program?

3. Questions For Key Informants Only

   3a. What has been your experience with evaluation of home visiting programs? Please describe. What types of data are collected? Are there other evaluation activities that you think home visiting programs should do?

   3b. What (other) outcome data do you think are necessary for home visiting programs to collect in order to evaluate return on investment?

   3c. What do you think about using aggregated outcome data from multiple home visiting programs – is that currently being done? By aggregated outcome data, we mean data that is compiled from multiple home visiting programs and summarized. If yes, how are these data currently collected, recorded, stored?

   3d. How many home visits and years of data do you think you need to see an effect of the program on your outcome measure(s)?

   3e. What do you see as barriers or challenges with the current data collection and reporting and evaluation processes for home visiting programs?
3f. Do you think there are data quality issues with the data that are currently being collected? *If yes,* what are they? *Why do you think this is the case and what can be done about it?*

3g. How are evaluation data being used to inform program decisions about doing home visits? How do you think they should be used? What are the barriers to making that happen? What can be done to address these barriers?

3h. Do you think people doing home visits understand the importance and the need for accurate data to inform decisions? *If no,* why do you think that is?

3i. What type of training do most personnel who do home visits get for data collection? How often do they receive training?

3j. What type of guidance (or tool) do you think personnel who do home visits need to increase their data collection and program evaluation efforts? What format should this guidance be in? How should this guidance be communicated to fire personnel who do home visits?

4. **Planning Questions**—For Key Informants (as relevant) and Fire Department Personnel

4a. Are you involved in planning your home visiting program? By planning I mean helping to decide which areas and houses to visit or what activities to do while in the homes.

*If yes,* please continue with section 4 questions.

*If no,* skip to section 5, **Implementing Questions**

4b. Is it just you or are there others at your department who help with the planning?

4c. How do you identify which homes to visit?

- Do you use data to guide your decision? *If yes,* what data are used?
- Do you consider the factors that have been found in research studies to identify high-risk areas and homes? Do you let trends and/or local experiences influence your priorities? Please share some examples.

4d. Do you communicate your planning process to those who implement the home visits? By implement, I mean those who go door-to-door and conduct the home visits.

*If yes,* what do you tell them?

*If no,* what is/are the reason(s) for this information not being communicated to them?

4e. Does your planning include identifying specific goals and/or objectives? Do you know if you are successful at meeting your planned goals?

*If yes,* how do you know?

*If no,* what do you think are the reasons you have not met your planned goals?
4f. Do the data that are collected at the home visits inform your planning?  *If yes, how so?*

*Continue with question 5a.*

5. **Implementing Questions**-- For Key Informants (as relevant) and Fire Department Personnel

5a. Are you involved with implementing your home visiting program? By implementing I mean knocking on doors and interacting with the residents.

*If yes, please continue with section 5 questions.*

*If no, skip to section 6, Reporting Questions*

5b. Does your fire department have any partners/organizations outside of the department who help you to conduct the home visits?  *If yes, who are they? What is their role?*

5c. How do you know which homes to visit?

5d. Is there any preparation that takes place before you go out into the field?  *If yes, please describe.*

5e. We want to get a sense of when a home visit starts and ends. Think about what you would count if you had to measure the length of time you spend on a home visit. When would you start and stop counting (e.g., start the moment you enter the home or once risks have been identified, etc.; and end when you leave the home, etc.)?

5f. How do you gain access to the homes?

   How do you introduce yourselves to the neighborhood? Do you send letters beforehand? Do you go door-to-door with no advanced notice?

5g. Can you tell me more about what specifically happens during the home visits?

   • How many times do you visit the same home? Are there follow-up visits after the initial visit? If so, how long after the first visit? What do you do at the follow-up visit?
   • How much time is spent on a typical home visit?
   • What services are delivered at the home visits? Are smoke alarms installed? Do you give out handouts or brochures? Do you show the resident(s) videos on a portable electronic device?
   • How do you decide which educational material related to fire safety to go over with the resident(s) (e.g., by who lives in the household)? What subjects do you cover? (Check all that apply: ☐ senior safety, ☐ child safety, ☐ fire escape planning, ☐ carbon monoxide, ☐ cooking fires, ☐ other: ____________)
   • Do you also go over educational material that is not fire safety related?  *If yes, what topic(s) does it cover?* ____________
   • Do you do anything to test if the resident(s) understand the information they have been told, given, or shown (like giving a pre and post tests)? Do you ask them to demonstrate their fire escape plan, if they have one?
• Do you consider the literacy level, primary language, and other potential accessibility factors (e.g., visual, hearing, and physical impairments) of the residents when communicating your messages? *If yes*, which factors? ________________________________

• Do messages vary according to ages, abilities or risk factors you observed? *If yes*, briefly explain. ________________________________

5h. Are there closing steps you take at the end of the day (e.g., return data to a specific place, ensure smoke alarms are accessible for another shift to conduct home visits the next day, etc.)? *If yes*, what are those specific steps.

5i. What data do you collect during a home visit? What data collection tool are you currently using? Was it provided by Vision 20/20? If not, can you please email me a copy of the tool you use? If applicable, what data is collected at the follow-up visit(s)?

5j. What do you see as being the barriers or challenges with the current data collection process? How do you think these barriers could be addressed?

5k. Do you think people doing home visits understand the importance and the need for accurate data to inform decisions? *If no*, why do you think that is? What type of training do most personnel who do home visits get for data collection?

5l. What type of guidance (or tool) do you think personnel who do home visits need to increase their data collection and program evaluation efforts? What format should this guidance be in? How should this guidance be communicated to fire personnel who do home visits?

5m. How does your department use the data you collect? Do you get reports back from the data you collect? Do you know if your department makes decisions based on the data you collect? Continue with question 6a.

6. **Reporting Questions**—For Key Informants (as relevant) and Fire Department Personnel

6a. Are you involved with the reporting or evaluating of your home visiting program? By reporting or evaluating I mean compiling the data that is collected from the home visits to report on or to measure an outcome, for example, how many alarms were installed or if there was a reduction in fire deaths in an area.

*If yes*, please continue with section 6 questions.

*If no*, skip to section 7, Conclusion

6b. Is it just you or are there others at your department who help with the reporting or evaluating of the data?
6c. Can you tell me more about how the reporting and evaluating is done at your fire department?

- Who enters the data? Is it entered in the field or back at the fire department?
- Where is the data stored?
- How is the reporting done? Can you please email me a sample copy of a report? *If yes, give them your email address.*
- Do you look at factors such as the total # of visits conducted over a period of time, average time spent in each home, the incidences of fire deaths in a targeted neighborhood over a period of time, etc.?
- Do you report on the number of fires prevented or lives saved? *If yes, how do you do that?*

6d. What information gets reported back to the fire personnel who implement the program?

6e. Is there a quality control process you use for checking the accuracy of the data collected at the home visits? *If yes, what is it?*

6f. Do you think there are data quality issues with the data that are currently being collected and reported on? *If yes, what are they? Why do you think this is the case and what can be done about it?*

6g. What do you see as the barriers or challenges with the current data collection and reporting and evaluation processes for home visiting programs?

6h. When evaluating home visits and home visiting programs, what do you think the evaluation should cover?

- What data do you think should be collected while conducting the home visit?
- What is the best way to capture the data (i.e., hard copy surveys or directly into a database through a portable electronic device)?

6i. How are evaluation data being used to inform program decisions about doing home visits? How do you think they should be used? What are the barriers to making that happen? What can be done to address these barriers?

IF NOT PREVIOUSLY COVERED WITH THIS RESPONDENT:

6j. Do you think people doing home visits understand the importance and the need for accurate data to inform decisions? *If no, why do you think that is?*

6k. What type of training do most personnel who do home visits get for data collection?

6l. What type of guidance (or tool) do you think personnel who do home visits need to increase their data collection and program evaluation efforts? What format should this guidance be in? How should this guidance be communicated to fire personnel who do home visits?
6m. Does your department make decisions based on the data that are collected from the home visits? *If yes, do you believe those who are visiting the homes and collecting data understand the importance and the need for accurate data to inform decisions?*

6n. How many home visits and years of data do you think you need to see an effect of the program on your outcome measure(s)?

*Continue with question 7a.*

7. **Conclusion (for both Key Informants and Fire Department Personnel)**

7a. What information do you think would be helpful to cover in the guide?

7b. What format would you like the guide in? (e.g., hard copy, download from a website, CD etc.)

7c. Is there anything you would like to tell me about home visiting programs that we haven’t already discussed?

7d. Is there someone else you think I should be talking with in order to learn more about (your department’s) home visiting programs?
APPENDIX 2
Appendix 2: Additional Information from the Summary of Interviews for Recommendations on Home Visiting Program Evaluation Guide

Other Things We Heard

- Communicate what is already known that can guide the work of prevention
- Make evaluation simple and straightforward to do
- Use technology (e.g., ipads) to education residents by showing videos etc. to reduce burden on field personnel to act as health educators

Characteristics of Guide Format

What We Recommend for the Guide:

- Address the issue of whether providing prevention education is something every firefighter should do/should do well
- Get input from the intended audience before committing to content and format
- Incorporate plan to disseminate information about the product
- Draw from existing guides (CDC/USFA guide; Vision 20/20 online course)
- Produce in multiple formats (online, print, CD)
- Provide brief training videos via a CD or Youtube to demonstrate what is recommended in the guide
- Consider a host organization (possibly USFA) to house and disseminate training materials, data collection materials, evaluation materials, etc