

# HEALTHY HOMES TRANSITION REPORT



## A Study of the Baltimore City Healthy Homes Division

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This report was developed using data from The Baltimore City Healthy Homes Transition Project. It can be used by Lead Poisoning Prevention Programs and other agencies transitioning to a Healthy Homes model. Using qualitative data, the report outlines the programmatic changes, policies and partnerships needed to create and implement a successful program.

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# Healthy Homes Transition Report

## A STUDY OF THE BALTIMORE CITY HEALTHY HOMES DIVISION

### INTRODUCTION

When we plan a meal, we scan our cookbooks for a good recipe. We follow the steps listed to achieve success. Sometimes we improvise with ingredients from our own kitchen. We creatively add spice appropriate to the palate of our guests. This project began with the end in mind: to create a “*cookbook*” with the recipes for successful transition from Lead Poisoning Prevention to Healthy Homes. Our report, which includes the *cookbook*, originates in Baltimore City, Maryland which is the site of the first Healthy Homes program cited by the Centers for Disease Control and Prevention’s Childhood Lead Poisoning Prevention Program. It includes quotations from the program staff and participants of the Baltimore City Healthy Homes Division. This report is intended to be used by other public health programs evolving from a particular focus to a more holistic focus involving the entire home.

This report was developed using qualitative data collected through interviews with administrative and field staff who were part of the newly transitioned Baltimore City Healthy Homes Division of the Baltimore City Health Department (see box on page 5). It is intended as a guide for Lead Poisoning Prevention Programs and other agencies that are transitioning to a focus on Healthy Homes. As it primarily reflects the voices of a Healthy Homes program staff, this report offers a perspective that will be useful for state, local, and community agencies in their development of a Healthy Homes program. In conjunction with other materials including scientific literature, this report provides information to guide the development of Healthy Homes programming. Ideally, the reader will find ways to adapt the ingredients to meet the health needs of families in other regions of the United States.

We begin by providing context for the linkages between substandard housing, poor environmental quality, and health. This overview is followed by a description of this project and its methodology. Results are organized around a framework for transition (see Figure 1 on page 13). Data are revealed as they relate to programmatic experiences, policy, and partnerships. Implications for these findings are discussed and the *cookbook* is incorporated as a pull-out guide for quick reference.



**“Healthy Homes is a very inclusive holistic approach. I think it’s the way we should have been going for years.”**

-Baltimore City Healthy Homes Division  
Field Staff Member

## OVERVIEW OF HEALTH AND HOUSING: CONTEXT FOR TRANSITION

Home is the epicenter of family life and the place where most people spend the majority of their time.<sup>1</sup> Although it is clear that the health of the family depends on having homes that are safe and free from hazards, much work remains to elucidate these links. Likely the most widely known housing-related health concern is childhood lead poisoning. In 1999–2004, 1.4% of children ages one through five had elevated blood lead levels. This is a substantial decline from the approximately 8.6% of children in 1988–1991, an 84% decrease.<sup>2</sup> Most lead exposures occur in the home. Between 1998 and 2000 a quarter of homes were estimated to have significant lead-based paint hazards.<sup>3</sup> Yet lead poisoning is not the only example of the link between housing and health. Approximately 40% of diagnosed asthma among children is believed to be attributable to residential exposures<sup>4</sup> such as mold, pets, and pests. Poisoning from air pollutants such as carbon monoxide, radon, and other substances also places people at risk with their home. Additionally, injuries occurring at home accounted for half of all injuries in 2004–2005.<sup>5</sup>

Each of these health issues related to housing can be reduced or eliminated with proper education, home maintenance, equipment, and/or testing. Health Departments, and particularly Childhood Lead Poisoning Prevention Programs with their decades of expertise in home assessment and family education, are in a strong position to expand upon programming beyond the reduction of childhood lead poisoning within the United States.

### Lead Poisoning Prevention and Healthy Homes

In its Healthy People 2010 goals, the U.S. Department of Health and Human Services calls for eliminating elevated blood lead levels by 2010. It also calls for a 52% reduction in the number of substandard occupied housing units throughout the United States.<sup>6</sup> Reaching these goals may require changes to current programs to expand services and provide access to resources. Lead paint often coexists in homes with poor indoor air quality, lack of home safety devices, and other housing hazards, placing children and families at great risk for multiple health problems.<sup>1</sup> Families in need of assistance to manage lead are likely to be in need of support with other hazards within their homes.

Building upon the success of the Lead Poisoning Prevention programs, Healthy Homes is a program initiative providing outreach and education to families. Rather than targeting a specific health issue, the Healthy

## BACKGROUND ON THE BALTIMORE CITY HEALTHY HOMES DIVISION

In 2007, The Baltimore City Health Department received funding as a demonstration program from CDC to transition from a Lead Poisoning Prevention Office to a comprehensive Healthy Homes Division. The pilot team consisted of representatives from the field teams, field staff supervisors, and managerial staff. A project manager and resource manager were hired to facilitate the transition. The pilot team's goal was to develop, implement, and evaluate a cost-effective, outcome-focused, replicable model to expand an urban childhood lead poisoning prevention program into a comprehensive Healthy Homes program. Program staff conducted comprehensive inspections, developed new referral and educational resources, and assessed the efficacy of interventions targeting multiple residential hazards.

Fifty households were evaluated three months after the initial inspections to assess changes in environmental hazards and risks, self-reported health factors and healthy homes behaviors. Assessments and interventions addressed: 1) lead exposure; 2) carbon monoxide exposure; 3) fire hazards and the adequacy of smoke alarms; 4) moisture, mold, and allergen triggers; 5) presence of rodents and roaches and approaches to pest control; 6) presence of and access to hazardous or harmful household products; 7) smoking; 8) adequacy of ventilation, heating, and cooling; and 9) visible physical hazards. The pilot yielded important surveillance data for the program to develop and refine priorities. Initial inspections revealed that 28% of assessed families did not have trashcans in their kitchens; 74% had pest problems; and 32% reported environmental tobacco smoke. Approximately 20% of families reported that they were unsatisfied with their homes.<sup>9</sup>



Homes Initiative is a comprehensive and holistic approach to preventing disease and injury that can result from housing-related hazards and deficiencies. Healthy Homes programming encompasses the broad range of hazards that families face in the home such as toxic materials (lead, asbestos, pesticide and household products); dangerous gases (carbon monoxide and radon); hazards that cause and contribute to asthma (dust allergens, molds, and pests); and other safety and health concerns.<sup>7</sup> The focus of the initiative is to identify health, safety, and quality-of-life issues in the home environment and to act systematically to eliminate or mitigate problems.<sup>7</sup>

Public health interventions have been developed focusing on creating a healthy home environment. These interventions, which address negative health consequences of the environment, date back to the 19th century when crowded housing, poor sanitation and inadequate ventilation led to deadly diseases such as tuberculosis and cholera.<sup>8</sup> At that time, John Snow famously removed the handle from the community water pump to curtail a cholera outbreak. Later, public health interventions found their way into the home environment. A present day public health success, the decline in childhood lead poisoning has been attributed to a number of factors, including effective efforts to clean up substandard housing units.<sup>6</sup>

Healthy Homes provides public health professionals, including environmental public health practitioners, public health nurses, and housing specialists, the requisite training and tools necessary to address the broad range of housing deficiencies and hazards associated with unhealthy and unsafe homes. Healthy Homes practitioners are encouraged to take a broad approach, working with families to assess the environment for an array of potential hazards and make necessary changes.<sup>7</sup> Families are provided with education, supplies, referrals, and in some cases assistance to make home repairs and other modifications.



## EXPLANATION OF PROJECT

### Overall Approach and Rationale

This report summarizes the results of a qualitative research study and includes the aforementioned “cookbook” with step-by-step instructions for use by programs and agencies interested in transitioning to a Healthy Homes model. This project is largely based on qualitative information collected through interviews and focus groups. Dr. Maring interviewed key individuals, as identified by Baltimore City Healthy Homes Division staff and program officers at the CDC, after the transition period to develop a contextualized description of the process of change and the culture of the new organization. The interviews with staff represent the primary voice presented in this report. Interviews were followed up by focus groups with community members who received services from the Baltimore City Healthy Homes Division. One key assumption of this research is that program staff and program participants’ own voices will contribute to a greater understanding of the factors that contribute to a successful Healthy Homes program.

## METHODOLOGY

### Qualitative Research

Qualitative methodology is distinct from quantitative procedures. Generally, a qualitative approach to data collection is a rigorous and time-consuming process that allows more new ways of thinking to emerge from the data than does quantitative methodology.<sup>10-12</sup> For the current study, administrative and field staff members of the Baltimore City Health Department’s Healthy Homes Division provide contextual information about the transition from a Lead Poisoning Prevention program to a comprehensive Healthy Homes program.

Qualitative researchers should not be “ventriloquists” for those being researched.<sup>13</sup> They must include study participants as critical voices in the research findings. Furthermore, qualitative research provides contextual insights often missing in quantitative research. We designed the open-ended questions to highlight challenges faced by staff members as well as the benefits identified by the group in their own voices. We developed a protocol used to guide the interview, though questions were open-ended and loosely organized (See Appendix A). Questions were asked to elicit insight into the challenges of early stages of transition from solely conducting Lead Poisoning Prevention to the model of Healthy Homes programming and also to engage these key informants to think about strategies that were used in the transition period.

### Site Selection: Baltimore City Healthy Homes Division

In 2007, the CDC selected Baltimore City’s Childhood Lead Poisoning Prevention Program to coordinate a Healthy Homes Pilot Team and transition into a comprehensive Healthy Homes Program (see box on p. 5). Baltimore City Healthy Homes Division was selected by the CDC for current study to broaden understanding of this transition process from the perspective of program staff.

### Negotiating Entry

Following approval from the University of Maryland Institutional Review Board, Dr. Maring attended meetings with members of the Healthy Homes Pilot Team and read documents provided by program staff, including the Final Report of the Baltimore City Healthy Homes Division’s pilot program, a precursor to the fully transitioned



Healthy Homes Division (See box on p. 5). These steps of trust and rapport building are an important part of the prolonged engagement process to establish credibility among participants. Dr. Maring observed day-to-day activity in the Baltimore City Health Department office, wrote field notes, talked with personnel, and interviewed administration and field staff. Prior to the interviews, Dr. Maring met with the Program Director and Project Manager to generate a list of key informants for the interviews.

## Arranging Interviews

Dr. Maring was then introduced to many of the staff members during the weeks leading up to the interviews. Field staff were informed about the study and given an opportunity to volunteer for an interview on a sign-up sheet located near the stairs and elevator where all staff members pass. Staff participants were offered a small gift certificate to a local café in appreciation for their time and their willingness to share their experiences. This process contributed to 100% of the staff members who were approached with the consent form agreeing to participate in the study. Fourteen interviews were conducted at a local café. Three interviews were conducted in the Healthy Homes Division of the Baltimore City Health Department. The amount of time for each interview ranged from approximately thirty minutes to one hour.

## Defining Sample

While fifteen plus or minus ten participants is considered to be an acceptable sample size among qualitative researchers,<sup>14</sup> the number of interviews should be based on redundancy and cannot be determined before the study begins. That is, the size of the study sample cannot be established by a formula, but rather is determined when no new information is received from newly sampled units.<sup>15</sup> The Co-PI reached saturation at 17 interviews, a point at which all administrative staff interviews were completed and no new concepts were being generated with field staff.

Individual interviews were followed by 3 focus groups of 3-6 community members per group who received services from the Healthy Homes program. Community members received an invitation letter from the Baltimore City Healthy Homes Division for participation in the focus group. Invitations were mailed to all participants living in specific zip codes that were in close proximity to the recreational facility where the focus group would take place. Focus groups were used to triangulate the data from individual interviews using a second methodology and a second group of respondents. More information about the focus groups is in the section on establishing trustworthiness of the data (see p. 10).

## Data Gathering Methods

The study used purposeful sampling, a strategy in which persons, settings, or events are selected deliberately to provide information that could not be found elsewhere.<sup>12</sup> Given the knowledge and experience of administration and field staff in the Baltimore City Healthy Homes Division, this approach was effective in finding participants who could answer the research questions, which maximized collection of information about the transition from Lead Poisoning Prevention to Healthy Homes to the point of redundancy.<sup>15</sup> This report also draws information from field notes generated by the Co-PI over the course of the study. Field notes include information from meetings with staff from the Baltimore City Healthy Homes Division and the Maryland Department of the Environment.

## Voices of Transition

The voices that are represented in this report are the program staff, the program recipients, and the property owners/landlords who are affected by program policies.

### HEALTHY HOMES ADMINISTRATIVE STAFF

Administrative staff members in the Healthy Homes Division are responsible for overall program management, protocol development, and data analysis. The administrative staff members who participated in the study include the Director, the Project Manager, the Resource Coordinator, the Epidemiologist, and the Environmental Health Supervisor.

### HEALTHY HOMES FIELD STAFF

There are two types of field staff members that make up the Healthy Homes Division of the Baltimore City Health Department: *Environmental Sanitarians*, more often identified as “Sans” and *Public Health Investigators*, known as “PHIs”. Sanitarians are responsible for overseeing the inspection of homes, educating clients, and in the case of lead, serving as enforcement representatives. Public Health Investigators educate families, link them to community resources, and provide case management.<sup>9</sup> Program staff defined the different roles that each play similarly, noting that Sans concentrate on the structural aspects of the built environment and PHIs follow the child.



In the transition from Lead Poisoning Prevention to Healthy Homes Division, field staff members were required to learn new protocols, participate in training, and be ambassadors for the new program. While field staff are categorized as a unit in one sense, PHIs and Sans play independent roles, have separate staff meetings, and conduct home visits separately. Environmental Sanitarians are required to have a college degree at minimum and must complete a certification process. Public Health Investigators do not have these training requirements.

### FAMILIES

Much as staff members were the critical voices of the current study, their work is dependent on the families referred for services and the most pressing needs of those families. The families’ perspectives are recounted in staff interviews. Follow up focus groups provided opportunity to “check in” with families and triangulate data gathered from staff.

### PROPERTY OWNERS/LANDLORDS

The final voice that is represented in this story of the transition from Lead Poisoning Prevention to Healthy Homes is the landlord. While landlords were not interviewed for the current study, they were commonly referred to in both individual interviews with staff and by tenants in community focus groups.

## Establishing trustworthiness

There are qualitative equivalents to quantitative data concepts of reliability and validity. Qualitative researchers should use at least two procedures in any study. In this study, the two procedures used for establishing trustworthiness of data were *prolonged engagement* and *triangulation*. Prolonged engagement involves spending sufficient time in the field to build rapport and gain understanding of the context for data collected. Triangulation in this study involved using a second methodology and a second group of respondents for corroborating evidence. That is, focus groups with community members have the potential to provide conflicting information from that provided by program staff.

### Triangulation: Focus Group Study

The focus groups were arranged collaboratively by Dr. Maring and members of the Baltimore City Health Department's Healthy Homes Division. The focus groups were designed to follow individual interviews with the administrative staff, public health investigators, and environmental sanitarians who offered insight into the challenges of transitioning from a Lead Poisoning Prevention Office to the Healthy Homes Division of the Baltimore City Health Department. Findings from qualitative open ended focus groups serve to further elucidate program needs as well as program strengths from the perspective of community members, including family members who have benefited from programs.

The focus group study took place at a recreational facility in Baltimore City during the morning while school age children were attending school. Programs at the recreation center were available for toddler age children. We conducted three focus groups ranging from 30 minutes to 1 hour. Participants were given gift cards to a local grocery store as a thank you for their participation. A protocol was developed to guide the focus group, though questions were open-ended and loosely organized (See Appendix B).

## Ethical Considerations

This research project was approved by the Baltimore City Health Department and the pilot team to benefit their services. The research project was also reviewed and approved by the Internal Review Board at the University of Maryland. To protect human subjects, consent forms were provided and names will not be used in reports from the study. Interviews were recorded and transcribed for coding purposes. Questions were asked to elicit insight into the challenges of early stages of transition from solely conducting lead poisoning prevention to the model of Healthy Homes programming and also to engage key informants to think about strategies that were used in the transition period.

## Data Analysis Procedures

A grounded theory approach was used for data analysis. Grounded theory procedures for data analysis incorporate three main phases: open coding, axial coding, and selective coding.<sup>10</sup>

### Open Coding

Open coding is the process of breaking down, examining, comparing, conceptualizing, and categorizing data.<sup>16</sup> In open coding, the researcher examines the text of memos, field notes and transcripts from interviews for salient categories of information. This process involves taking similar concepts and placing them under a higher level heading. In order to theoretically saturate each concept (i.e., reach a level at which no new codes appear), we developed a codebook that reflected several readings of notes, transcriptions, and codes (See Appendix C). The

codebook incorporated categories that capture the strengths and challenges to developing an ideal program structure with reliable resources and policies. In order to organize the large amount of data effectively we developed other categories. The categories became part of a tree node system in the QSR NVivo program with many subcodes.

The NVivo software program facilitated the open coding process. The researchers read through all interviews and categorized paragraphs to fit within the concepts. New concepts emerged throughout open coding. In order to incorporate a new concept, we had to revisit text from interviews coded earlier in the process. This back-and-forth process helped the researchers to feel immersed in the data and prepared us to move on to axial coding.

### **Axial Coding**

In axial coding, new connections are made between categories and subcategories defined in open coding. Whereas in open coding the researcher is essentially developing the categories, in axial coding, the relationship between or among categories is explicitly examined.<sup>17</sup> There are four features of relating categories: causal conditions, context, intervening conditions, and consequences.<sup>16</sup> The following example from a field staff member of the Baltimore City Healthy Homes Division illustrates the four features: “It was a difficult transition because I know with myself and I know with my other sanitarians, anybody who is doing a job and you’re trying to give education to another person, you want to be up on it yourself. You want to feel like you’re the expert, because they look to you to have the answers. And if you don’t have the answers then you feel like you’re not doing your job properly...So I think that was a big fear for me, you know, not feeling adequate in knowing all the aspects of what to do with a Healthy Homes inspection and you know, being, efficient in every aspect.”

*Causal conditions* in data are associated with cues such as “when,” “while,” “since,” “because,” “due to,” or “on account of.” They are the events that lead to the occurrence of the phenomenon. In the example above, the causal condition is the desire to feel like a healthy homes expert *because* “they look to you to have the answers.” *Context* refers to the specific location of events that pertain to a phenomenon. *Context* is represented by when and how events occur, the number and type of incidents, duration, location, and intensity. The context in this example is the inspection process for field staff in the home of a family with a referred child.

*Intervening conditions* represent broader structural context pertaining to a phenomenon. Conditions of time, culture, economic status, history, and individual biography must be managed through the axial coding process. Staff members provided many indications of these conditions. The most pertinent intervening condition to the current study is the history of lead in the United States, and the decline in lead poisoning for children ages one through five over the last decade. In this example, it is demonstrated that staff members are apprehensive about their level of expertise beyond Lead Poisoning Prevention. Finally, *consequences* to people, places or things such as events or responsive interactions were revealed in axial coding. In this example, the consequence for this field staff member was fear of inadequacy and perhaps, an effort to build broader expertise. This process of axial coding enabled us to relate codes and subcodes and verify statements with the codebook (See Appendix C).

### **Selective Coding**

In the final phase, selective coding, data were interpreted to build a narrative that connects the categories defined through open and axial coding.<sup>10</sup> The conceptualization of a story line involves giving the central

phenomenon a name. In the current study, *Transition from Lead Poisoning Prevention to Healthy Homes* is the central phenomenon, or core variable generated during coding that is theoretically saturated and centrally relevant. In other words, it is the variable that pulls the others together to form an explanatory whole.<sup>17</sup>

## RESULTS OF PROJECT

Seventeen interviews were conducted with Baltimore City Health Department staff. Twelve participants were field staff, five who identified as either Public Health Investigators or Case Managers, and seven who identified as Environmental Sanitarians, including the Supervisor. The Program Director, the Epidemiologist, the Program Manager for Healthy Homes Resources, the Legal Compliance Officer, and the Data Analyst also participated.

**Table 1. Demographic Information for Baltimore City Healthy Homes Division Staff**

Demographic Item	Research Sample (N=17)	
	Mean/Percent	Range
Number of years with Health Department	14 years	5mos-34 years
Gender		
Male	29%	5
Female	71%	12
Field of work		
Environmental Sanitarian	41%	7
Public Health Investigator/Case Manager	29%	5
Administrative Staff	29%	5

Findings for the study are arranged around an organizational framework for which *Transition from Lead Poisoning Prevention to Healthy Homes* is identified as the central phenomenon. The voices of transition include administrative and field staff, families that received services, and landlords. Through these voices, we can learn about programmatic changes, policy changes, and partnerships that are integral in transition to a comprehensive Healthy Homes program. Quotations from participating staff and community members provide supporting evidence for the results.



Photo courtesy of Liz Kasameyer

**Figure 1. Framework for the Transition from Lead Poisoning Prevention to Healthy Homes**

### Programmatic Experiences

Responses to the individual interviews range from acknowledgements of strengths of the transition to Healthy Homes to expressions of frustrations at new challenges for an already stressed staff. Overall, most participants saw advantages of the transition for the community. That is, the fact that a Healthy Homes program provides more comprehensive services than Lead Poisoning Prevention was acknowledged by the majority of participants in the study.

**"I welcomed [the Healthy Homes transition] because it was a change. It gave us some resources to address the issues that our families face on a daily basis."**

*-Baltimore City Healthy Homes Division Field Staff Member*

### Training

Baltimore City Healthy Homes Division staff members were overwhelmingly positive about their ability to provide key resources (see Partnerships on page 30) to families to assist in areas that they had not been able to when focused solely on Lead Poisoning Prevention. Noted several times in the course of interviewing staff was a sense of feeling ill-equipped to handle some situations. Training was seen as a necessary component to transition from Lead Poisoning Prevention to Healthy Homes for staff members to refer families appropriately. These data reveal training strengths and areas in which there is need for further training.

**"And I think that was always something I heard from a lot of the inspection staff is, oh you know I wish there was something we could do about this problem or that problem. I wish we had the training to tell them what to do about these problems. So yeah, it was definitely needed for a few reasons."**

*-Baltimore City Healthy Homes Division Administrative Staff Member*



## TRAINING STRENGTHS

To prepare for the additional tasks required of them once the transition from Lead Poisoning Prevention to Healthy Homes was complete, administrative staff report that almost 90 hours of training was offered. Participants identified most effective training opportunities. For comprehensive Healthy Homes knowledge, the National Center for Healthy Housing, “Essentials for Healthy Homes Practitioners” course was noted (for information, see <http://www.healthyhomestraining.org>). Staff members were required to take the two-day course as preparation for the National Environmental Health Association (NEHA) credentialing examination.<sup>9</sup> According to one participant, the course was useful for the “big context.” Fire safety, carbon monoxide, and integrated pest management were also valuable. Also, a training program was conducted to introduce field staff to potential resources in the communities where services relevant to client needs are provided. This training was highlighted by a staff member as important for “just knowing what is out there.” This response is noteworthy because it demonstrates that staff members need skills simply to access potential partnering resource providers. Other training that occurred and was mentioned by participants included injuries, safe sleep, water testing, blood borne pathogens, and mold.

## IDEAL PROGRAM TRAINING NEEDS

Staff identified training opportunities that staff in a transitioning program need. First, training in hands-on mold remediation was needed for working in the homes of Baltimore City children. According to participants, training on mold was an “academic” training rather than “real world” situation-based. Similarly, further training on carbon monoxide poisoning and its effect on health was identified as a need. Program sanitarians noted a need for additional training to assess, recognize and resolve carbon monoxide leaks during inspection of water heaters and furnaces. More generally, a field staff member voiced a specific need for training in comprehensive housing inspection. Another staff member noted that there is a difference in looking at a house from a structural point-of-view and a health standpoint. This participant recommended that a history of homes and neighborhoods in the region would be useful for field staff.

An administrative staff member identified cultural competency training as a needed focus, noting that Healthy Homes topics must be considered in a “culturally competent way.” For instance, it was acknowledged that staff members lack skill to explain Healthy Homes issues in Spanish. Furthermore, staff members described a barrier to explaining regulatory codes with immigrant families. A field staff member stated, “There are resources out there in other languages but it’s one thing to just have a piece of paper, it’s another to explain to somebody, ‘well, this is why we are coming to talk to you.’” Another noted that there are families that lack understanding of Healthy Homes as a concept.

**“I’ve had Spanish speaking families that, they have no context, none. The laws, the regulations—why we are even there. So talking to them about Healthy Homes stuff is like a whole other level.”**

*-Baltimore City Healthy Homes Division Field Staff Member*

It was clear from the interviews that administrative staff and field staff play different roles in the structure and implementation of the Healthy Homes program. One member of the administrative staff believed that training on how grants and funding works would help field staff understand the need to have a robust administrative staff to respond to funding needs and for collecting detailed evaluation data. Also, general health education

training was recommended in order to better communicate health-related issues to families in a way that may get them to make changes. A staff member observed, “I think from that standpoint we don’t really have a good understanding about what your goal really is when you do a Healthy Homes assessment or a visit.” Staff mentioned a lack of the skills needed by many of the families referred to the Healthy Homes program. Field staff feel compromised when they encounter issues that require a skilled social worker. For example, one participant noted, “Things like housing, where to move tenants to or if the tenants are having social issues, family issues. We are not trained to be social workers.”

#### TOO MUCH OR NOT ENOUGH?

Staff were divided about whether there was enough training, too much training, or too little training. In addition, the training required by the transition was a challenge for staff who had field responsibilities. On the one hand, many participants voiced their frustration about too many trainings and too much time in training. For these staff members, some of the material presented was common sense. One staff member referred to a strenuous schedule of training and testing. One challenge is that material on the built environment presented in training is new to some staff members, particularly the PHIs. That is, many sanitarians who enter the job with at least a college degree, had Healthy Homes background prior to the transition. Though parts of the training fulfill required credit hours for certification for the sanitarians, they believe that their time could be better spent in the field than in training.

**“Training is such that now it takes a lot out of what we need to do out in the field...We are overburdened with meetings and trainings. We are always being tested...There is always a meeting which takes away from time in the field...I know that as a result of the program changing that we have to change and adapt to what our new focus is, but that can be a little stressful.”**

*-Baltimore City Healthy Homes Division Field Staff Member*

On the other hand, there are participating staff members who continue to feel underprepared for the transition to Healthy Homes. One participant claimed a concern that she does not “feel like an expert” when answering questions that families may raise. The field staff mentioned that they have to “learn all of the information and then give it to the owner or tenant in a way they can understand.” Participating staff members recommended that programs interested in completing a similar transition ensure adequate planning time for trainings. According to one staff member, there was at times a sense of “last minute” planning for trainings. Along similar lines, another staff member recommended that transitioning programs “try to have all the trainings in place ahead of time.” In Baltimore City, the role of one of the new administrative staff member was to organize all of these trainings.

#### Supplies

On one hand, the ability to provide families with supplies was identified by staff as a benefit of the transition. On the other hand, supply overload was mentioned as a burden for staff members. Data indicate the benefits of supply provision as well as inconsistencies and other drawbacks of the current program.

## PROGRAM STRENGTHS

The materials that field staff transported from home to home provide families with tools, while also giving the staff member an incentive that helped build rapport with families. The supply kits, prepared by the Healthy Homes program staff members, include tools to address safety, pest management, water-related issues, and educational materials.

**"I don't know if it's because we give free stuff away they feel comfortable, but they appear to be very happy when we come most of the time now [that the program is Healthy Homes]. Now that people know we don't just deal with lead—we have more to offer—it seems like they are more interested in the other services as well."**

*-Baltimore City Healthy Homes Division Field Staff Member*

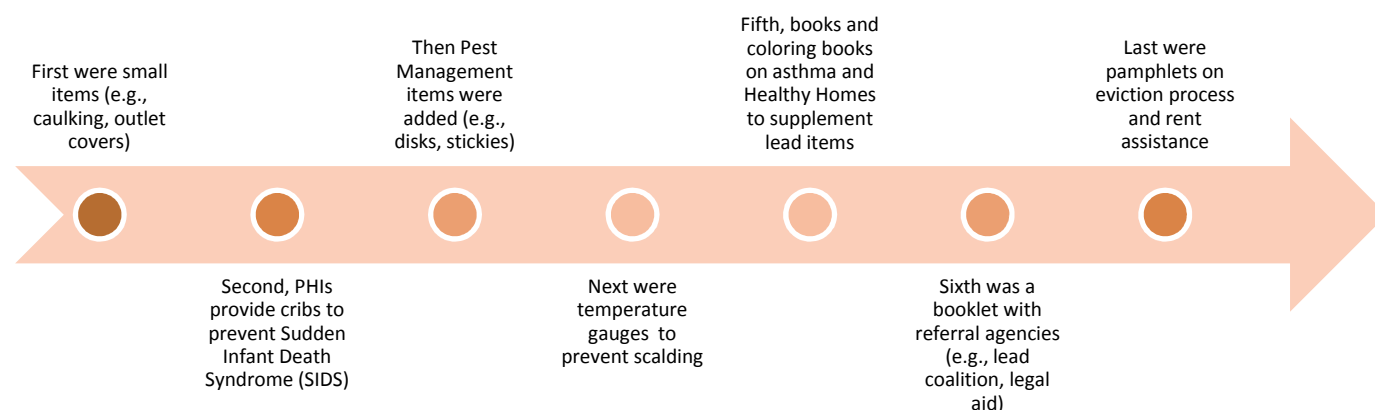
According to staff, items such as educational coloring books for children, roach disks, caulk, nightlights, outlet covers, temperature gauges, and cleaning supplies are usually included in supply kits. Staff members provided many examples indicative of the benefits to families who appreciate no cost resources along with educational materials. In one case, a family conveyed to the field staff member that the pest management products in the market were too expensive to deal with their cockroach problem. Having the roach disks on hand provided service to the family, but also helped the staff member to feel confident about the benefits of a Healthy Homes program.

Most importantly, staff members noted that the items they have for families could be instrumental in meeting their basic safety needs. Staff members shared that they have supplied hundreds of nightlights since the Healthy Homes program inception. Nightlights are important for injury prevention near staircases and other house locations where family members can trip and fall. Field staff members have also presented thousands of outlet covers, critical for injury prevention among homes with infants and young children. Moreover, the Healthy Homes program takes responsibility for forming a partnership with the fire department and offering smoke alarms to families without these essential safety devices.

## SUPPLY CONSISTENCY

Noting how much families were interested in receiving Healthy Homes materials, staff members raised concern that supplies which are used in a program remain available for distribution. Several staff identified providing "giveaways" as a necessary component of the ideal Healthy Homes program. Carbon monoxide detectors, for example, were identified as important incentive items to keep stocked for families.

Analyses of staff interviews also reveal a need for consistency with the supplies that are provided to families by the Baltimore City Healthy Homes Division. Staff members reflected that it was difficult to recall the chronology of supply list changes.

**Figure 2. Chronology of Supplies from the Perspective of One Field Staff Member**

As the program expanded from a pilot to a fully transitioned Healthy Homes program, so did the amount of supplies that staff were taking to each home assessment. Carrying supplies was identified as a burden for field staff members. Staff members described the addition over time of items to be transported to the homes. In an attempt to remedy this issue, a voucher system was piloted in which ten families were given vouchers that required them to visit the Healthy Homes Division to retrieve covered trash cans. Four of the ten families given vouchers traveled to the Health Department for a trash can. While the success rate was low, this effort was described as an achievement by one administrative staff member who stated, “But I have to be honest, I was really pleased by that 40%. I mean four families made the trip down here to pick up a free trash can. That’s a success to me.”

Overall, both administrative and field staff agreed that having access to a broad range of supplies is an important component of an ideal Healthy Homes program. In addition to an adequate array of materials, staff members must be trained to teach families about the materials which they are presenting. Finally, in an ideal program, field staff will believe that the supplies they carry are chosen judiciously and are essential to the well-being of the families they serve.

### Personnel

Transitioning from a lead focus to a broader healthy homes focus means additional work for all staff, including field, clerical, and management. Study participants referred to a need for more field staff members. Participants also raised concern that the program in its current state might not adequately meet the needs of families and noted a need for new positions to make the transitioned Healthy Homes Division more effective.

#### “SOLDIERS IN THE FIELD”

The need for more frontline staff or “soldiers in the field” was presented by the staff members who participated in the study. One reason for this need was that staff members who recently vacated positions in the Health Department were not replaced. The field staff supervisor stated unequivocally that field staff cannot feasibly take on more responsibility at the current staffing level. As the program expands, there are other health issues that are fitting for the Healthy Homes Division to absorb. For instance, a staff supervisor reported that the Healthy Homes Division discussed taking on mold citations for the city. However, with more than 100 calls per

month, staff expressed concern that this would be an overwhelming burden. Administrative staff reported that a “workload analysis” was conducted which led the Division to postpone the assumption of mold enforcement.

In the transition, field staff members were given additional responsibilities to make referrals to appropriate programs. The Baltimore City Healthy Homes Division administrators understand the frustrations associated with the increased workload. One administrative staff member empathized, “They feel like they’re overwhelmed when you really don’t get a chance to take a real deep breath on any given day. That makes for people not always giving their best to their job because they have so much to do and I don’t think that’s good in any situation.” Another administrative staff member reiterated that the field staff are overworked and advocated, “I think one or two more people would really help spread the burden a bit.” Most significantly, staff participants keep in mind that the services provided to families must be effective and that staffing issues affect the quality of those services.

**“The workload has become such that it is burdensome. I don’t think we have enough people to spread it out so that we can effectively educate—effectively put a lot of energy and effort into a family so that they can get the total package of assistance that we can offer. Because there are so many other things that we have to continue to do—the inspection, the dust sampling, the paperwork, the computer updates, and so forth. We pretty much can do maybe one inspection a day and we have to concentrate on making sure all that information is included in our notes and that we cover all the areas in the inspection process...”**

*-Baltimore City Healthy Homes Division Field Staff Member*

For the ideal Healthy Homes program, participants stated that having enough people in the field to carry out the mission of the program is crucial to its success. However, field staff indicated that their work must be supported by adequate assistance from other facets of the program.

#### **“WE’RE NOT SOCIAL WORKERS”**

The most salient staffing need raised by program participants was for social workers to be integrated into the program. Administrative and field staff participants contend that many of the families who are referred to the Healthy Homes program have significant social issues that need to be addressed. Participants consistently noted that the quality of their indoor air is not a priority for such families. For example, taking on the voice of a community member, one participant raised the concern, “Having somebody come in and talk to you about a smoke detector? I’m worried about the food, I’m not worried about smoke detector.” Another staff member talked about poverty more generally for participating families.



**“...the degree of poverty that some of our families are living in is just completely morally unacceptable. And what we are doing is putting a band-aid on a gaping wound. You know, people who don’t have working toilets. A certain number of our families end up where they are because they are fleeing abuse. There are big issues and healthy housing is incredibly important but there is a hierarchy of needs.”**

*-Baltimore City Healthy Homes Division  
Administrative Staff Member*

Field staff noted that families presented problems beyond the scope of their expertise. Sanitarians and PHIs felt that a competent social worker in a Healthy Homes program would reduce the burden on field staff to follow up with families whose problems extend beyond the understanding of Healthy Homes practitioners. That is, a social worker could address social issues that are likely to take precedence in the lives of families who receive services.

**“There’s no law that tells a tenant that you have to do your part. It’s really all the legal issues on the owner, it’s on the onus of the owner to do his part. But there’s nothing that says, oh the law says, okay after the owner has done his abatement and everything, you have to keep the house clean, you have to feed your child correctly, you have to make sure you call him with any problems and things like that. So I think that’s where a social worker would be better for the follow up portion.”**

*-Baltimore City Healthy Homes Division Field Staff Member*

## CLERICAL STAFF

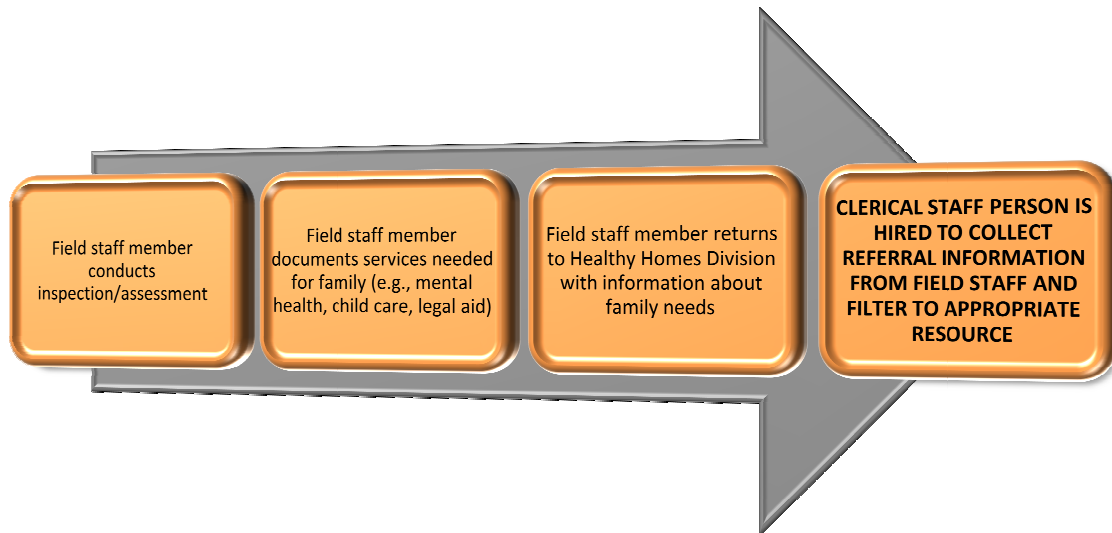
Administrative and field staff agreed that an ideal Healthy Homes program needs support staff to lessen the burden on field workers and their supervisors. The administrative and field staff further agreed that it was a lot of work for field staff to inspect the home and then return to the office to arrange service with various programs. Rather, they suggested a clerical person handle the process once the field staff member returned to the office would help to improve on their ability to serve referred families.



**“Somebody to help make appointments--send out information, follow-up on where's their application. The gentleman that was talking to me and said 'Hey, I need to know the property owners name and number' and all that stuff. Isn't that something a clerical person could do? That's a minimal few phone calls tracking...Just somebody that can help you service the population that you are dealing with so that I can get out there and be in front of the people that I am trying to service.”**

*-Baltimore City Healthy Homes Division Field Staff Member*

**Figure 3. Depiction of Ideal Referrals Process from the Perspective of Field Staff**



#### THE WAY WE WERE

There was a degree of nostalgia voiced by staff members who were with the program prior to the transition to Healthy Homes. Long-term staff members raised concern that turnover negatively affects historical knowledge of a program. One staff member noted, “A lot of people showed up and a lot of people left. A lot of experience left is how I see it. And you know, to me I don’t care what people know. Experience is gonna always be the best teacher.” In other words, this staff member deemed city-based field experience on one hand, and higher education, training, and general knowledge about the subject area on the other.

#### Home visits

For staff, another significant programmatic change in transitioning from a lead-based program to a Healthy Homes program was the impact on the nature of home visits. Interviews with participants revealed three significant changes to the home visit: 1) time and paperwork; 2) the educational materials and expectations of field staff expertise; and 3) health and safety issues.

#### TIME AND PAPERWORK

Among administrative and field staff who participated in the study, there was agreement that the amount of *time* and *paperwork* swelled with the new assessment protocol. One participant stated, “If there wasn’t a time to get off work, you would just work all day.” A sanitarian noted that a lead inspection in a small home typically

lasts two hours, but with the transition, the inspection and XRF analysis for lead are supplemented by a lengthy Healthy Homes assessment. Administrative staff report that the Healthy Homes material added 30 minutes to one hour in the home. In addition to the time in the field, staff members voiced additional stress with the paperwork that follows.

**“When you get back from the field at 1:30 or 2 o’clock you still have documentation, paperwork, you issue violation notice, you download pictures, you finish your assessment form, you make up this for the research coordinator. All this paperwork, you cannot finish it in 2 hours and when you finish, it’s about time to go home. [Then] you have another initial inspection the next day and you don’t have enough time to prepare for the initial inspection when you’re finishing this documentation.”**

*-Baltimore City Healthy Homes Division Field Staff Member*

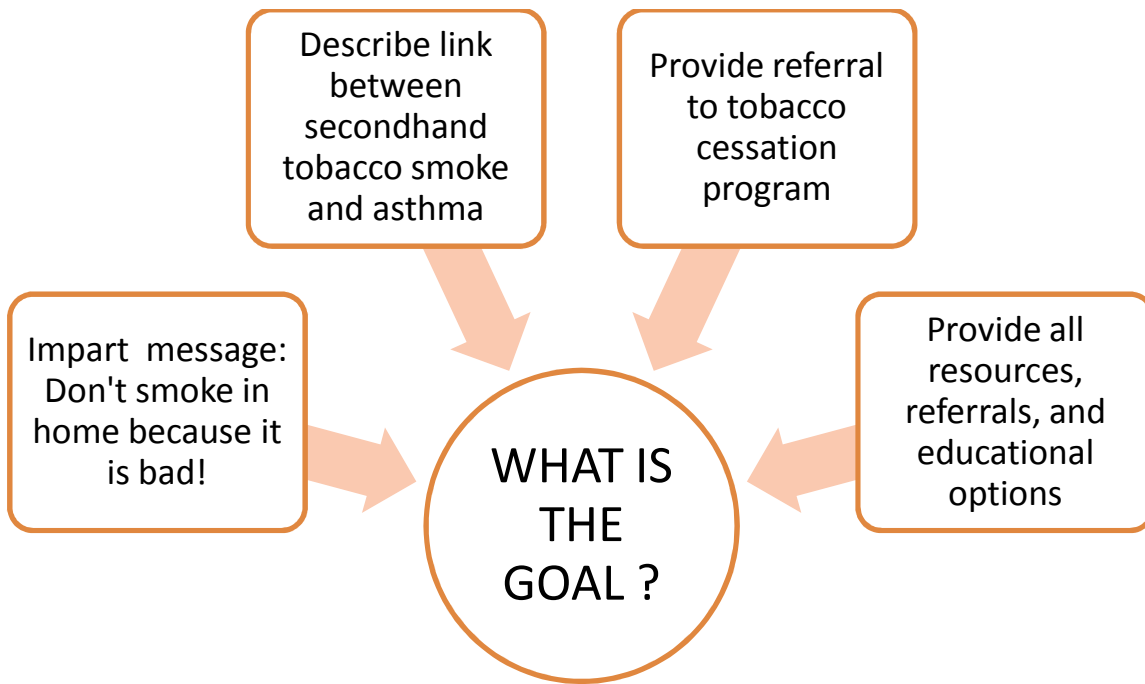
Administrative staff members sympathized with frontliners who conduct the home visits, acknowledging the challenges to working well under time pressure. Furthermore, while field staff participants stress levels increased with the length of a Healthy Homes home visit, the administrative staff also experience an increased workload as a result of the transition. One of the administrative staff members stated, “It doesn’t all get done. The essential things I can get done.”

Administrative staff provided examples of proactive efforts to alleviate the burden. For example, the program director shared that she has set paperwork reduction as a six-month goal. Additionally, administrative staff members intend to make the home visit assessment and follow up paperwork more efficient. While time demands undoubtedly place burden on both field and administrative staff, it is agreed upon that client needs are of paramount concern. One field staff member feared that the addition of Healthy Homes material to their inspections might compromise their ability to visit a home in which a child’s blood lead levels are unusually high within the required timeframe. An administrative staff member posited that an ideal Healthy Homes program is limited by the work that staff can do well. That is, in coping with the issue of time and paperwork, quality intervention should not be compromised.

#### EDUCATIONAL MATERIALS AND EXPERTISE

The educational components of a Healthy Homes inspection and home visit were seen as a cornerstone to engendering self-sufficiency in clientele. For Sans, the inspection expanded to address issues in the home such as pest management, mold, fire safety, and carbon monoxide poisoning prevention. The related visit from PHI expanded to address health consequences from pests, mold, and other asthma triggers as well as overall safety hazards including obstructed stairways, exposed electrical outlets, and infant sleeping arrangements. The time that is invested is, in this sense, invaluable to overall success of the Healthy Homes program. Focus groups which were conducted with community members who received services demonstrate the value of the educational material they received.

With the transition, administrative staff members strived to integrate Healthy Homes topics into the education component of home visits. They raised critical questions about how to best serve families. In the following example, an administrative staff member uses education on Secondhand Tobacco Smoke to demonstrate the challenge programmatically. Providing all resources, referrals, and educational materials available is an identified option, but may be burdensome or beyond the scope of the Healthy Homes Division.

**Figure 4. Administrative Staff Consider Educational Alternatives**

Program staff expressed varying opinions as to whether the repetition of educational information was useful to participants. On one hand, field staff noted that presenting the same material in different ways is beneficial for the families. On the other hand, field staff raised concern that repetition confused and inconvenienced participants. One program recipient who participated in a focus group noted that the educational piece, as presented, was essential to her family's success at remediating problems in their home. This program participant noted that having experts provide an educational piece and following up to check how they used the information "kind of kept us in line."



**"They really step in and give you information you need and make sure that they can help you in any kind of way that they can so it won't keep happening and other people can know about it. That's what I like about it...they are really on top of their job to make sure that they can prevent it."**

*— Baltimore City Healthy Homes Division Program Recipient*

#### HEALTH AND SAFETY ISSUES

Many of the safety issues encountered by field staff existed prior to the transition from Lead Poisoning Prevention to Healthy Homes. That is, both pre- and post-transition, staff found themselves in a home where drug or gang activity is present. One field staff member noted that "we put our life on the lines like the police do." There were many stories presented by staff about the occupational hazards they experience being on the

frontline. For instance, one field staff member recalled being in a home and intense fighting occurred between family members while she was in the room. Accordingly, administrative staff note that they advise field staff that “their safety comes first.”

With the transition, several new issues emerged in relation to health and safety. First, prior to transition, staff members rarely had reason to enter the basement of a home. In a Healthy Homes program, however, sanitarians are expected to enter the basement to check water temperature, moisture, and other safety issues. One staff member explained that she gauges the safety on a case by case basis and will document “basement not safe” or “basement not accessible” if she is uncomfortable. Rather, she will ask the family, “Do you have problems with heating or with your water heater?” and document the response for referral to a specialist.

After the transition from Lead Poisoning Prevention to Healthy Homes, environmental sanitarians began testing for carbon monoxide and other contaminants within the homes they visited. Field staff raised concern about their health with exposure to indoor air contaminants in the inspection process.

**“At first they wanted us to test all [stove] burners for carbon monoxide and even the oven. So at that time when I was doing it, we have high readings. And there was a time that I felt dizzy so I protested during one of the meetings that you know I don’t think you are thinking about your inspectors’ health.”**

*-Baltimore City Healthy Homes Division Field Staff Member*

Additionally, staff members mentioned concern about their own liability. For example, one field staff member hypothesized, “If there will be an event where a child let’s say got scalded or burned, they will say ‘Oh, the Health Department adjusted that, they probably did the wrong adjustment’ and again, I am not a specialist so I should not be adjusting that.” Alternatively, staff advise families to adjust their own water temperature and to “always check the bathtub before putting the child in.” An administrative staff member stated that a line was added to the assessment protocol for staff members to report, “Cannot determine.” This option covers staff from culpability if they find no fault with an appliance, for example, and the following week, a carbon monoxide leak is discovered. A Healthy Homes program responds to evolving issues to most appropriately serve the needs of families while protecting its staff members from harm.

## **Data collection**

A final area in which Baltimore City Healthy Homes Division staff members noted programmatic changes was in data collection. In response to a question about the effect of the transition on the work that they do, staff described how data collection was complicated by the transition. On one hand, staff members were amenable to the change because of the greater long-term benefit to families of the data collected. On the other hand, gaps remain in the data collection process. Information from administrative and field staff demonstrate strengths and weaknesses in the data collection process, which is an indication that the transition to Healthy Homes continues to be in development.

### **STRENGTHS IN THE DATA COLLECTION PROCESS**

Interviews with Healthy Homes Division staff revealed that data collection is an integral part of home visits. Many participants acknowledged evaluation data as a mechanism through which services to families can be

improved. Administrative and field staff members were in agreement about the importance of building rapport with families and only asking questions that are germane to the program's success. Program staff recommended avoiding anything that might make a family member uncomfortable and jeopardize rapport.

Based on information gathered from interviews with staff and follow-up focus groups with families, another strength of the Baltimore City Healthy Homes Division appears to be its continuing efforts to improve programming and to self-evaluate. Administrative and field staff members mentioned discussion of need for a satisfaction survey to help gauge "what was helpful, what wasn't helpful."

**"[Field staff have] had families ask, 'How can I give my feedback about your visit?' I'm sure it's because it was positive. But we were just talking about how great it would be to get the family perspective. [For example] 'These housing issues have been bothering [me] and I'm really glad to get some advice about them' or 'why did you ask me about all this weird stuff? I don't care about carbon monoxide. Why did you spend two hours of my morning inspecting my house?'"**

*-Baltimore City Healthy Homes Division Administrative Staff Member*

#### GAPS IN THE DATA COLLECTION PROCESS

While the Baltimore City Healthy Homes Division is a good model for programs in the process of transition because of its focus on data collection, the process continues to be in refinement. One concern mentioned by staff is that data collection must remain uncompromised by efforts to build rapport. In the process of inspecting and educating families, field staff members have a mission to provide information to the families. However, the timing must be such that pre-test data accurately represent a family's knowledge prior to the home visit. One administrative staff member noted a time period when assessment forms indicated that families "were getting all the questions right." However, it was discovered that field staff were uncomfortable with the data collection process. Upon further investigation, administrative staff understood the rationale.

**"...The inspection staff was a little uncomfortable quizzing people on knowledge issues that they theoretically should know and they didn't want to make people feel either intimidated or resentful of being asked questions about things they should know."**

*-Baltimore City Healthy Homes Division Administrative Staff Member*

Another issue for data collection is comfort level with the database where information is captured. To be part of a national database with other Childhood Lead Poisoning Prevention Programs (CLPPPs), Maryland Department of the Environment (MDE) requires Baltimore City to report using the STELLAR electronic database. However, Healthy Homes data is not collected on this database. A second database was created specifically for Healthy Homes assessments. Field staff report that this makes reporting "much more complicated" in a field where getting pre-test information and getting 30 day follow up data is a challenge in itself.

Finally, staff reported that during the pilot stage of the Healthy Homes program, administrative staff created inspection forms knowing that they would change. The forms "went through a few different variations" with

the goal to “get distilled down to a more basic, user-friendly form.” At the time of the interviews, administrative staff noted that it was a priority to continue this process until questions are only asked that are “going to result in some kind of action.” The interviews indicate that the data collection process for the Baltimore City Healthy Homes Division is advancing the program goals while continually refining them.

## Policy

Following an exploration of the programmatic changes, it is important to explore the transition to Healthy Homes from a public policy standpoint. Community problems are tackled in part through establishing policies that are oriented to making changes for the residents of a place.<sup>18</sup> In May 2006, the Baltimore City Health Department appointed an Assistant Commissioner for Healthy Homes, Dr. Madeleine Shea. This position was the first in the nation<sup>9</sup> and considered by staff an enhancement that corresponded to “the trend nationwide to expand to more of a holistic approach rather than a specialized lead focus.” Subsequently, the Lead Poisoning Prevention program expanded to address other problems in the home. This section is divided into three parts: 1) policy differences between the former Lead Poisoning Prevention program and the comprehensive Healthy Homes program; 2) internal policy development; and 3) future policy needs for the ideal Healthy Homes program.

### Lead Poisoning vs. Healthy Homes Policy

Interviews with staff members from the Baltimore City Healthy Homes Division reveal much about the history of lead poisoning prevention policy in the city. Long-time members of the staff recall changes to city mandates to tackle lead in housing. One staff member noted that lead is a “political football” getting “tossed around by the mayor, the governor, someone running for office...everyone on any side, on any level of government...” With its long history came many changes over the years affecting program management and design.

**“The city developed a much more aggressive response to lead in about 2001 when they decided to have an attorney based at the lead program as opposed to through the city solicitor’s office. So it was a much more aggressive pursuit of properties that poison children. That was a big change and certainly a very successful one. That really changed a lot of things for the next five years.”**

*- Baltimore City Healthy Homes Division Administrative Staff Member*

On a federal level, health problems associated with elevated blood lead levels in children were targeted by Healthy People to be eliminated by 2010.<sup>8</sup> Staff report that this goal will not be fully realized in Baltimore City by 2010. However, the Healthy People goal is an important factor in swinging the political pendulum away from lead as an isolated issue in housing and environmental health. With fewer lead poisoning cases anticipated in future years, concerns about program sustainability promote adaptation to an expanded program focusing on an array of housing issues.

The transition to Healthy Homes may take some time for agencies to accept, considering that Lead Poisoning Prevention programs have existed on the state and federal level for decades. Funding streams may dictate involvement from entities that are skeptical about the Healthy Homes model. To explain the policy divide, one administrative staff member noted the resistance from Maryland Department of the Environment claiming,



“they are very, very, very focused on lead.” When the Baltimore City Lead Poisoning Prevention program made the transition, the staff wanted to focus data reports on Healthy Homes, but the administrative staff reported that Maryland Department of the Environment officials rejected the effort. One staff member suggested that support and encouragement from parent agencies and ancillary boards will assist programs in their transition process.

While programmatically the transition to the Healthy Homes Division proceeded relatively quickly in Baltimore, it is clear from interviews with administrative and field staff that there continue to be policies that lag behind. According to one participant, using elevated blood lead (EBL) levels to enter homes is not reflective of the preventive nature of the current program. Staff mentioned the Primary Prevention Initiative (PPI), a related program within the Healthy Homes Division, in which staff members assess homes of low income pregnant women preventively. That is, without a referral based on an EBL level. Staff members describe the PPI program as having “definitely expanded the scope of what we do and whom we serve.” Building upon the PPI, one staff member suggested that families be able to request a Healthy Homes assessment without a lead specific referral



**We need an EBL to bring on this [Healthy Homes] intervention. Can someone call up? I'm not even sure now, but I don't think they can call our offices and say 'I want a Healthy Homes assessment.' They should be able to do that but the only way we can do that once the community knows that we are out here to do those things."**

*-Baltimore City Healthy Homes Division Field Staff Member*

### Internal Policy Development

Policy encompasses both the external interactions and regulations pertaining to the new Healthy Homes Division, and the framework developed internally to guide the work of program staff. There were several areas related to internal policy that were discussed by staff members. These include the impact of new administrative staff on the program and the communication strengths and challenges faced by the transitioning program.

### ADMINISTRATIVE CHANGES

Both administrative and field staff noted the staffing changes with the transition from Lead Poisoning Prevention to Healthy Homes. Within the newly developed Healthy Homes Division, administrative staff members hired as part of the transition were perceived by some field staff as coming with “new rules and regulations and protocols.” One such administrative staff member describes her role within the program to include policy development and management of strategies that will serve families best.

**“I’m trying to think about things more broadly on a policy and strategic level with what are we doing with other agencies...Is there a way the housing authority can change this behavior? Or can we reach more people through this direct service? Or can we change the policy of another agency? Or can we encourage some community based organization to get involved in Healthy Homes issues?”**

*– Baltimore City Healthy Homes Division Administrative Staff Member*

## INTERNAL COMMUNICATION

Internal communication was defined as an integral component of policy development needed for program effectiveness, efficiency, and stability. One reason that communication updates were a problem was because of the physical space available to the Division. It was mentioned that it was not possible to have an all-staff meeting because the program lacks space, making it hard to communicate to the entire team at one time.

The lines of communication within the Healthy Homes Division were identified as multidirectional. One administrative staff member stressed that for an ideal Healthy Homes program, open communication between the various program components is necessary.

**“Stay flexible and keep a lot of communication going between the different components. Communication between, if for example it’s like a bifurcated thing like we have with the environmental and the medical [staff]. Keep communication open between those two aspects. Keep communication open between, open and frequent I should say, between the data collection and the data analysis.”**

*–Baltimore City Healthy Homes Division Administrative Staff Member*

Case conferences were suggested as an important forum to learn from peers about client issues and strategize for a shared vision of successful program policies. Case conferences were a newly added component to the Healthy Homes Division after transitioning from the Lead Poisoning Prevention program.

Within the Division, most field staff members stated that they felt adequately informed regarding changes that were being made to the program. However, they did feel at times a desire to be more participatory in the transition process. One staff member with decades of experience expressed it is hard for her to “to see things that could be better and not say something to make a difference.” At the time of the interview, this participant considered the transition still in progress and was optimistic that the administrative staff would listen to field staff recommendations as good program policy.

## OTHER COMMUNICATION ISSUES

It was also expressed by field staff members that an ideal Healthy Homes program will ensure that service recipients are included in the policymaking process, communicating to the program their needs at all phases of program development, implementation and evaluation.

**“Bring them in to sit around the table and give them an idea of what is going on, why we are here. Don’t just knock on the door .... Invite them into the nucleus and let them see it. Just maybe pick one or two or three or four families and get them actually involved in the whole process. Get their viewpoint of being this affected family. Bring them to the table... that has always been one of my things, even with lead paint, we never brought the families in.”**

*-Baltimore City Healthy Homes Division Field Staff Member*

Communication with outside entities, particularly medical providers, may assist the Division in reinforcing the education that is provided to families. Acknowledged as a time consuming effort, one field staff member discussed the importance of telephoning medical providers as cases are finished, yet describes this practice as rare among other field staff colleagues. A family member who participated in the focus groups corroborated this point, stating that the communication between the Healthy Homes Division and her child’s doctor’s office was inadequate. Without a policy addressing communication, and the staff to support this level of effort, many staff will not take the extra time necessary for this type of communication.

### **Ideal Policy Needs**

Throughout the study, administrative and field staff members described what was working well as a result of the transition from Lead Poisoning Prevention, and areas that were in need of improvement. They also noted components that would make up an ideal Healthy Homes program. Not surprisingly, additional funding was identified as a major policy issue for the program. Furthermore, several social policy and legal issues were mentioned.

### **FUNDING ISSUES**

Among the policy issues raised by the Healthy Homes Division program staff was the quintessential public health issue of whether to cast a wide net or to narrowly target high risk families with the programming dollars available. For public health practitioners, a key question is whether to design a program for a broad audience which may reach people who do not need services, or to narrowly target those who demonstrate risk while potentially missing others who are not identified because they do not have an elevated blood lead level. According to one participant, this question is often resolved as a funding issue. That is, a program may have a competent staff that can provide “comprehensive education, enforcement, and abatement” but must have the resources to do so.

A Baltimore City field staff member noted both the importance of assessing the need as well as the importance of lobbying for Healthy Homes funding. This staff member reported that local, state, and federal government will respond if the need is evident.



**“I don’t see how the city council, the state legislature or congress can deny when we are getting this heavy in flow of requests, ‘I want a Healthy Homes assessment.’ Somebody is going to have to find the money....And we can show where it really affects children in the school, performance in school, missing school and that type of thing some money is going to be shifted from someplace. They find money when they want money. I’ve never seen it fail.”**

*—Baltimore City Healthy Homes Division Field Staff Member*

The majority of staff members interviewed raised concern about the impermanence of funding on the macro level. That is, trends change and in this case, a Lead Poisoning Prevention program transitioned to a Healthy Homes program; staff question what future changes at the federal level will affect them. Sustainability of funding was also raised as a concern. One staff member pondered the feeling of impermanence, stating, “you wonder if you have a job.”

#### LEGAL ISSUES

Staff members explained that they are accustomed to having enforcement responsibilities for code violations as part of the lead program. Yet, they do not have the same enforcement power for the new parts of the program, leaving the onus on the property owners to make necessary repairs to reduce the risk for themselves or their tenants. One staff member suggested that enforcement should also be employed with tenants who are not maintaining the property after the owner complies with required renovations. They also discussed potential changes at the policy level to expand identification of housing-related issues and enforcement of existing laws.

**“I really think if you are committed to getting rid of childhood lead poisoning and reducing the burden of asthma, and fire safety, etc., that there should be potentially an annual inspection of rental properties, I do think you need a program that responds aggressively to exposure, to lead-exposed children, with aggressive enforcement measure. I do think Maryland has a pretty good law, which is a preventive law, and I think you need to aggressively enforce that law to make sure that every single landlord is in compliance.**

*—Baltimore City Healthy Homes Division Field Staff Member*

Staff mentioned options for tenants to take action against an unresponsive landlord. Participants noted that policymakers should engage community members in a dialogue about what changes would make a difference for them. One staff member elaborated, providing an example of the city’s non-emergency municipal number,

noting that the marketing of its service may be a missing ingredient to the ideal Healthy Homes program. In Baltimore City, one staff member revealed, residents can dial 3-1-1 and report an unresponsive landlord. This staff member speculated, “Maybe that’s the best thing we can do to eliminate lead poisoning and reduce asthma and improve housing.” That is, the Healthy Homes Division staff can direct clientele to important services available in the city.

## SOCIAL POLICY ISSUES

The social and economic factors of a community can affect health of residents.<sup>18,19</sup> Administrative and field staff noted that myriad stressors impact the families who participate in their program. Program policies, therefore, must be sensitive to the predominant concerns that families bring and strike a balance between a comprehensive approach and a targeted, client-focused approach. One administrative staff member revealed that they continue to refine policies to most effectively address the social issues that families present.

**“...it’s really more about the balance between the extremely comprehensive approach that we went for and trying to be a little bit more targeted a little bit more client-focused. Maybe get out in the field a little bit more—have two visits instead of one big one...if you go out and visit a family where their child just had an EBL of 30 and you start talking about, ‘What’s your fire safety plan?’ It’s not exactly the most sensitive response.”**

*— Baltimore City Healthy Homes Division Administrative Staff Member*

For an ideal healthy homes program, participants noted that all the resources and supplies are immaterial without access to safe housing, employment, food, and other basic needs. That is, to “get rid of lead exposure and reduce asthma,” the programmatic policies need to address larger systemic issues.

## Partnerships

Partnerships were viewed by staff members as a significant component of the transition from a Lead Poisoning Prevention program to a Healthy Homes program. Staff members reveal that they feel more responsive to the needs of clientele when they are capable of connecting families to resources. Data from interviews with field staff indicated strengths of the transition that resulted from successful partnerships. However, gaps still exist in the development of partnerships that can meet all of the needs of program staff and their clientele. Healthy Homes Division staff shared the strengths that can inform programs considering transition while also acknowledging the challenges to forming a comprehensive partnership list to suit the many needs that families bring to the attention of staff members.

### Strengths in Partnerships

#### ENHANCED ABILITY TO REFER APPROPRIATELY

One strength in the transitioned Healthy Homes program was the improved ability to provide staff with tools to refer appropriately. A persistent issue for the former Lead Poisoning Prevention program was the incapacity to act on hazards other than lead poisoning. An administrative staff person recalled that field staff would return to the Health Department and say, “There’s this infestation of pests or they don’t have smoke alarms.” Yet, at the time, staff members were not trained to handle those issues and furthermore, the program did not have the

resources to extend toward housing problems other than lead. Transitioning to a Healthy Homes program offered the program staff an opportunity to enhance their skills, while providing access to a range of referral sources. The staff member continued, “I think it’s expanded our cooperative role with other organizations as well a great deal.” In addition to lacking expertise, staff also noted that they were not required to make extensive referrals under the auspices of a Lead Poisoning Prevention program. As a Healthy Homes program, on the other hand, the field staff can and do provide a “myriad of resources for assistance” and that change was viewed positively by administrative and field staff.

According to field staff, a Lead Poisoning Prevention program provides them with a point of entry, but they so often found that homeowners and tenants benefit from a range of other services. One field staff member stated, “When you are just a lead inspector, you don’t have any jurisdiction over that.” In the process of transition, assessment tools require staff to document the various needs and make appropriate referrals to assist landlords, homeowners, and tenants.

**“Lead was a means to get into some of these houses so that we could see some of the things that were going on but it might be a need for social services, child protective services, or we may need to get them a list of contractors - particularly homeowners. If it’s rental, they may not be aware of their rights as a tenant so we are able to provide a lot of information regarding their rights as well as medical information, social information that they need to help get them a better life.”**

*-Office of Healthy Homes Field Staff Member*

#### DEVELOPMENT OF NEW GOALS

A second strength of the transition to Healthy Homes in relation to partnerships was the change to internal strategies for the agency. One staff member recalled the point at which the field staff began distributing cribs to families. Staff members noted the data indicating that the incidence of Sudden Infant Death Syndrome (SIDS) was higher in homes where children sleep in the caregiver’s bed. Prevention of SIDS can be a Healthy Homes issue. The goal of forming partnerships is to connect families to needed resources. Staff members affirmed that this process dramatically improved with the transformation to Healthy Homes. One staff member explained the change from “following blood tests” as a Lead Poisoning Prevention program to “making a difference in the families’ homes.” The staff members shared that a Healthy Homes program encompasses a wider range of referrals to help families toward safer, healthier lives.

**“One of the nice things about making changes from lead to Healthy Homes is that you get to do some of the things that really should have been done before... making it clear that one of their major goals is to connect our families to resources. So, there was a major transformation of mindset that really went on in the first year which was our public health investigators saw themselves as following blood tests and to really transition their role into making a difference in the families’ homes—safer, healthier, etc.”**

*-Office of Healthy Homes Field Staff Member*



As mentioned in the programmatic section on training, staff members participated in training to learn about the major agencies where referrals may be made (see p. 14). They noted that when the program was solely focused on lead, they would only make referrals to lead abatement agencies and the Coalition to End Childhood Lead Poisoning. Yet, one staff member revealed that thousands of social service agencies exist in the city of Baltimore. While the Healthy Homes Division is limited by its evolving list of partners, the field staff can at least share information on potential resources with families.

### Gaps in Partnerships

#### TIME

One issue that staff raised is the increase in time to make a Healthy Homes assessment in comparison to an already lengthy lead assessment. With Lead Poisoning Prevention, there were limited referral resources (e.g., Lead Abatement Action Program [LAAP], Coalition to End Childhood Lead Poisoning). As a Healthy Homes program, field staff members manage an array of issues making the referral process time much more extensive.

A related gap in the service provision of the Healthy Homes program occurs when resources are not immediately available. When a field staff member identifies a problem other than lead, the time it takes to get the necessary resources to clientele can create added stress for that family. As a recently transitioned program, this is a problem that will likely take time to resolve.

**“We are frustrated sometimes when we don’t get the right resource right away to the family. We identify problems right away but you don’t give us resources to help the family, so it’s unfair, it’s unfair I think - who suffers more...the clients, the family. Because, we tell them about the problems and now there’s anxiety building up on them and there’s no help coming right away.”**

*-Office of Healthy Homes Field Staff Member*

#### SYSTEMATIZE REFERRALS

Staff members raised examples of several areas in which the referral system remains unclear. One issue is in relation to relocation for families while work is being done. One field staff member suggested a city building be utilized for families in this situation. Similarly, the program continues to lack other necessary partnerships. For example, field staff members became aware of substance abuse issues in many of the homes, but were unsure of the proper referral resources. Finally, staff members recommended that there be a system set up to certify referrals for specific housing issues. The current system precludes staff members from recommending the services of one business over others.

### Recommendations for “Ideal Program” partnerships

For an ideal Healthy Homes program, staff members consistently recommended that resources be up-to-date and that partnerships be made with other agencies. Forming partnerships was described as a “plus positive” for the whole community. While staff members noted that partnerships were critical to a program transitioning to a

Healthy Homes model, there is not one ideal program strategy for forming partnerships. That is, one city will differ from another in the essential partnerships for an ideal Healthy Homes program.

**“I think different cities will attack it differently. I know that...Indianapolis Health Department is the housing authority for the city and so they are, in some sense, the truest healthy housing approach. Whereas we have a housing authority and they’re much, much, much bigger...I think community organizations are starting to know who we are and that we are doing things a little bit differently and that we have developed a whole series of different relationships.”**

*- Baltimore City Healthy Homes Division Administrative Staff Member*

Participants mentioned several partnerships that are important to establish when transitioning to Healthy Homes. The partnership with the fire department was indicated as a model by many staff members. When a field staff member identifies a home without working smoke detectors, the fire department will go out to that home.



**“We have a very good system for identifying families without working smoke detectors and getting them to the fire department and the fire department installs [them]. It’s been very successful and that’s an example of something that’s worked great...I think if I go into a home I know for sure that’s something I can definitely have an impact on.”**

*-Office of Healthy Homes Field Staff Member*

Baltimore City Housing Department is another example noted as a successful partnership. Though this partnership already existed prior to the transition to Healthy Homes, field staff believed that families receive more benefits now. After the transition to Healthy Homes, one field staff member shared that they were provided with vouchers to offer clientele. A good relationship with the local housing department is ideal, as many services among the two agencies are interconnected.

A range of other partnerships were mentioned by staff who participated in the study. Undeniably, staff revealed that Child Protective Services was a critical referral resource to handle crisis situations. Baltimore City’s Infants and Toddlers program was another agency mentioned by staff. Also, a plan was in motion for partnering with the Health Department’s Asthma program. For this forthcoming partnership, the administrative staff was working to generate enthusiasm from other staff members to advance a team approach between the two programs.

## IMPLICATIONS

Our findings have implications for families and their communities, staff, and for public policy. For staff members in a transitioning program, this study provides insight as to the strengths of a Healthy Homes program in contrast to a Lead Poisoning Prevention program. It also provides us with a glimpse at the challenges that were encountered by Baltimore City when making the transition to Healthy Homes. Policymakers and program officials will benefit from the analysis which clarifies broad social implications as well as internal policy adjustments. In this report, we examined the strengths and challenges in the transition process. Based on what we have gleaned through this study, we make recommendations for programs considering a similar shift to a Healthy Homes approach.

### Implications for families

There is clear agreement among interviewed staff that families benefit from both the former Childhood Lead Poisoning Prevention Program and now the Healthy Homes Division of the Baltimore City Health Department. Staff members recounted stories that illustrate the families' knowledge and skills gained. Equally important, staff members report that families demonstrate appreciation for the services provided. Particularly, staff convey that families find the supplies provided by staff members most valuable (e.g., cockroach disks, cribs, mattress covers). According to staff members, programs considering a transition should build supplies into the program design, and budget accordingly.

At the same time, staff expressed concern that families were being asked too many questions, too personal questions, and/or repetitive questions. There is a delicate balance between getting necessary information in order to help a family, and preventing the same family from experiencing a staff practitioner entering their home as an intrusion. Programs considering a transition will benefit from a review of data collection procedures.

There are needs that are still going unmet, and this is an area of concern voiced by staff members. The transition from Lead Poisoning Prevention to Healthy Homes brought with it an abundance of resources available for staff to provide to families. Yet, as staff members mentioned, these resources are still not enough to alleviate the problems. Concerns about poverty, food insecurity, and families living in homes in major disrepair indicated to staff that the services they were providing were like "putting a band-aid on a gaping wound." Assisting staff to cope with feelings of helplessness in the face of these challenges may be worthwhile for transitioning programs. An increase in resources may also remedy these needs, however as one staff member discussed, you cannot provide a resource for everything. Programs considering a transition must prioritize and assess the hierarchy of needs they are able to address within the program. The field staff members of the Baltimore City Healthy Homes Division are not social workers

### Implications for Meeting Families' Needs

1. Build supplies into program design and budget accordingly.
2. Review data collection procedures to optimize survey questions.
3. Assess where on the hierarchy of needs the program will serve families and set clear boundaries.
4. Ensure families' input into program structure and elicit follow up feedback from them.

and thus, setting clear boundaries for staff and families will enable transitioning programs to manage the array of needs that may be present.

Staff members also recommended the involvement of their program's primary recipient – families – in all aspects of program development, implementation and evaluation. Programs considering transition should develop a needs assessment to ensure families' input in program structure and provide a follow up mechanism to elicit feedback from families as the program matures.

## Implications for staff

As the main ingredient in the Healthy Homes cookbook, staff are ambassadors of the Baltimore City Healthy Homes Division and the source for quality Healthy Homes education for the families. Ensuring that staff members possess the necessary resources to take on transitioned roles was a posited repeatedly in this study.

Most of the staff members who transitioned to the Baltimore City Healthy Homes Division were experienced members of the Childhood Lead Poisoning Prevention Program. Two staff members had each been with the program for over 30 years, and four others were hired between 15 and 25 years ago. The administrative staff, on the other hand, is represented by set of recently hired staff members. Long-term staff members bring historical knowledge, deemed by many participants an essential element of program stability through a transition. Alternatively, experienced staff members are, in some cases, doubtful about the need for transition and require support through a transition. Programs considering a transition should balance staff members with historical knowledge and those with creativity and vision for the future.

The Healthy Homes supplies provided by staff were considered a valuable resource to families. As the program added more services, the amount of supplies staff took with them on home assessments also increased. This was at times burdensome to staff. The Baltimore City program attempted to rectify this situation by implementing a voucher system for some of the larger supplies. Programs considering a transition to Healthy Homes will likely be adding services and supplies, and will therefore, need to consider the most effective way to handle supplies provision in a way that minimizes burden on field staff.

Required attendance in training, as part of the transition, occurred frequently and generated stress for some staff members. Recommendations made by staff that would be useful for transitioning programs to consider include allowing enough lead time for planning of the trainings, and giving staff needed time to absorb the material and ask questions, practice, and prepare to implement what they have learned. The time spent on training, as well as the time needed to pilot new services (e.g., the home assessment, the follow up assessment, referrals, and

### Implications for Meeting Staff Needs

1. Balance number of staff members with historical knowledge and those with vision for the future.
2. For distributing supplies, consider the most effective ways to minimize burden on field staff.
3. Plan trainings sensibly and allow staff time to digest material, ask questions, and practice what they have learned.
4. Develop a one-stop data collection system to alleviate confusion and burden of multiple reporting systems on field staff members (ideally this will be implemented at the national and state level).

subsequent paperwork) was mentioned by almost every staff member as a major change to their work. Anticipating the proper amount of time for training and assessment will be important considerations for transitioning programs.

Data collection procedures for the Baltimore City Healthy Homes Division are complicated by the multiple required data collection systems. The Maryland Department of the Environment assimilates data statewide specifically on lead-related programming. For example, data collected by the Maryland Department of the Environment indicates the number of elevated blood lead level cases that have been assigned during the previous month and the specific blood lead level before and after services from the Healthy Homes Division. As a transitioned Healthy Homes program with funding from the CDC, Baltimore City Healthy Homes Division continues to develop its own data collection system which collects information about services including, but not limited to Lead Poisoning Prevention. Ideally, as programs around the country continue to transition to Healthy Homes, these systems will be integrated at the federal and state levels. However, programs considering a transition to Healthy Homes should be granted the autonomy to develop a one-stop data collection system to alleviate confusion and burden of multiple reporting systems.

### Implications for working with Policymakers

1. Collaborate with Housing Department and other branches of local government to have enforcement capabilities for Healthy Homes violations.
2. Adjust Lead Poisoning Prevention policy to accept referrals for families that present a broad range of Healthy Homes issues.
3. Develop policies for handling staff health and safety concerns and liability issues prior to implementation.

## Policy Implications

The Healthy Homes concept is a new idea in the city of Baltimore. As needs are reassessed and more permanence established, policies will also have to be addressed to support the functions of the Healthy Homes Division. Staff members identified several areas where stronger or alternative policies may be needed as a result of the transition. Three distinct areas which have changed are enforcement, referrals, and liability/staff safety.

A difference between the Lead Poisoning Prevention program and the Healthy Homes program is in the enforcement policy. As a Lead program, field staff members did not have the training or authority to require that landlords and tenants make broad changes to homes. Specifically, a Lead program's field staff member will require, by law, that homeowners address a lead paint issue appropriately. Staff members noted that in the Healthy Homes transition, they are powerless because they lack enforcement capability for Healthy Homes issues. This was seen as a detriment to program success. That is, programs considering a transition to Healthy Homes should anticipate the steps necessary to collaborate with those who control enforcement policy. In this case, the Housing Department is likely to be the first point of contact. Furthermore, staff members should lobby to have the appropriate laws and regulations approved.

With regard to referrals, currently the only way for a family to have access to the Healthy Homes program in Baltimore is via the process established in the former Lead Poisoning Prevention program. More specifically, a

child must have an elevated blood lead level identified by a pediatrician in order to be referred for services. This system, appropriate for environmental Sanitarians and Public Health Investigators focused specifically on lead-related issues, may not ultimately allow the program to reach all of the families requiring Healthy Homes services. While policymakers are responsible for identification of populations in need of services, one staff member recommended a *walk-in* Healthy Homes approach for families that request a Healthy Homes assessment, but did not get referred as a result of a child's elevated blood lead level. Additionally, staff reported that the current policy requires them to *fast-track* lead poisoning cases above a certain blood lead level. In these cases, field staff members report that they must put all other families' cases aside. This policy was singled out as one of the hurdles making it hard to conduct Healthy Homes follow-up visits in the time frame provided. Programs considering transition should think critically about how lead poisoning policy will dictate programmatic strategy and, at the very least, design a system for accepting clients for walk-in Healthy Homes services.

Another policy issue raised by staff was related to their overall health and safety with the transition as well as liability when assessing appliances and other pieces of equipment in the home. These policies may have already been addressed in Lead Poisoning Prevention programs. However, staff members noted the need to identify appropriate methods for assessing household hazards without placing the staff member at risk. Furthermore, staff members convey concern about their safety and lack of expertise in manipulating household equipment (e.g., hot water heater; stove). Programs considering transition should review staff health and safety issues and liability issues with legal advisors prior to implementation.

The appointment of the first Baltimore City Assistant Commissioner for Healthy Homes was identified as a central element that lay the groundwork for the transition from Lead Poisoning Prevention to Healthy Homes. This leadership and support at the policy level fostered development of the Healthy Homes Division. The implications for improving the health and well-being of Baltimore City residents are far reaching. Moreover, changes on a national level will continue to progress as programs around the country make the transition to provide families with comprehensive Healthy Homes services.

## APPENDICES



**A. Baltimore City Healthy Homes Transition Project: Staff Interview Protocol**

*Individual Interview Protocol*

**Your role in the Office of Healthy Homes**

*Difference between your role and that of your colleagues.*

**What has changed?**

*Changes in your role personally*

*Changes to the agency in general*

**Transition for staff**

*Do field staff members feel supported by the administration?*

*Do field staff members feel they can handle the workload?*

**Transition for the community**

*Does the program benefit the community?*

*Are the benefits greater with the transition to Healthy Homes?*

**Steps that marked the transition from Lead to Healthy Homes**

*How did the change take place?*

*Did you feel that staff members were adequately informed of these changes?*

*Does it continue to be in transition or has it stabilized?*

**The context that set the transition in motion**

*Situation worsened in the community?*

*Outside agency recommendation?*

*Other reasons why?*

**In this transition, what else has changed?**

*Who has been most affected by this transition?*

*Was the change necessary?*

**What is the significance of the transition to your work?**

*Makes it harder or easier?*

*Makes it more or less fulfilling?*

*Increased your level of understanding of problems?*

## B. Baltimore City Healthy Homes Transition Project: Community Focus Group Protocol

### Focus Group Protocol

1. **As a member of this community, talk about your experience with the Healthy Homes program.**
  - Do you know what I mean by Healthy Homes Program?
  - How do you refer to the program? (Lead, Health department, Healthy Homes, other name)?
2. **Until recently, the office was a lead prevention office ONLY responsible for making sure children get blood lead levels tested, lead hazards in home are reduced, and children with elevated blood levels get follow up care. In your experience, what OTHER services were provided?**
  - Pest management (cockroaches, rats, mice)
  - Carbon monoxide
  - Fire safety
  - Resources unrelated to housing (counseling, child care, mental health)
3. **What did you like about the services provided to you by staff in the Healthy Homes program?**
  - Information
  - Supplies
  - Follow up
4. **What changes did you make in your home?**
  - Cleaning/pest management
  - Lead-related
  - Fire safety
  - Other changes
5. **Did you get connected to resources you needed? If YES, what types of resources? (Counseling, childcare, mental health)**
6. **Is there anything that was confusing for you about the experience with this program?**
  - What is your understanding of who came to your home and what their role was?
  - Do you know what I mean by Public Health Investigator (PHI) and Sanitarian?
  - Distinguish Health Department or different providers coming to your home.
7. **What concerns did you have about the Healthy Homes program? Do you still have these concerns? Do you have any suggestions for improvement? (e.g., Healthy Homes Education, Inspections, Case management)**
8. **What else would you like help with in relation to the health of family members in your home?**

## C. Baltimore City Healthy Homes Transition Project Codebook

Code Label	Description
IDEAL PROGRAM	Staff responses related to what they would like to see in an ideal Healthy Homes program or what about the current program has been ideal
Support from admin	Staff voice positive and negative experiences with support from supervisors/administration
Resources	Ideal program components that are related to necessary resources for staff and for the families served by the Healthy Homes program
Communication	Communication responses as they relate to the ideal Healthy Homes program
With families	Communication that occurred between staff and families
Internally	Between staff or between staff and administration
Others	Communication between staff or administration with others (e.g., medical providers)
Promising Practices	Resources and/or components of the current program identified as working very well
TRANSITION	Responses related to how and why the program transitioned from a lead program to a Healthy Homes program
Context for transition	Descriptive, representing internal thoughts based on staff backgrounds/experiences
Process of transition	Didactic, step-by-step process of how the transition occurred
Data and Evaluation	Data collected, measurement tools, program evaluation needs
Pilot program	The role of the pilot program during the transition process
Transition still occurring	Perception of progress between lead and Healthy Homes
Policy	Policy changes or enforcement of statutes
MANY VOICES	Perspectives of the transition from all who were involved
Field Staff	PHIs and Sanitarians
Administration	Administrative staff/Supervisors
Community/Tenants	Perspective of families who were recipients of Healthy Homes services
Landlord/Homeowner	Landlord perspectives, as relayed by staff
PARTNERSHIPS/RESOURCES	Healthy Homes program assets and needs related to available resources
Needed by Families	Resources needed by families in order to receive optimum Healthy Homes services
Referrals	Outside agencies assisting families
Supplies	Incentives/supplies/handouts given by staff during home visits
Language/Cultural Competency	Resources (training, materials, and staff) available to understand cultural differences and have language to provide competent services
Education	Health education and other information provided verbally by staff
Needed by Staff	Resources needed by staff in order to provide optimum Healthy Homes services
Time	Amount of time necessary for completion of tasks
Staffing	Amount and type of staff available for completing the work of the program
Money	Funding availability for program resources
Paperwork	Amount and type of paperwork utilized by staff
Equipment	Equipment used to measure exposures
Training	Training completed by staff related to Healthy Homes
KEY CONCERNS	Advice or cautionary notes for transitioning programs
Role of PHI vs. San	Compares/contrasts the role of the Public Health Investigator and the Sanitarian
Safety Issues	Issues related to the safety of staff while completing Healthy Homes home visits
HISTORY	Where the program started from prior to the transition to Healthy Homes
Program history	Components of lead program that assist in understanding the transition
Staff backgrounds	Career and educational backgrounds that led to work with Healthy Homes program
Stories	Stories about families served by Healthy Homes or lead programs, relayed by staff

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# BALTIMORE CITY HEALTHY HOMES REPORT “COOKBOOK”



A How-To-Guide Supplement to the Baltimore  
City Healthy Homes Report

# BALTIMORE CITY HEALTHY HOMES REPORT “COOKBOOK”

## A HOW-TO-GUIDE SUPPLEMENT TO THE BALTIMORE CITY HEALTHY HOMES REPORT

### INTRODUCTION

When we plan a meal, we scan our cookbooks for a good recipe. We follow the steps listed to achieve success. Sometimes we improvise with ingredients from our own kitchen. We creatively add spice appropriate to the palate of our guests. This project began with the end in mind: to create a “cookbook” with the recipes for successful transition from Lead Poisoning Prevention to Healthy Homes. This cookbook originates in Baltimore City, Maryland which is the site of the first Healthy Homes program cited by the Centers for Disease Control and Prevention’s Childhood Lead Poisoning Prevention Program. It is based on the words of program staff and participants of the Baltimore City Healthy Homes Division. Ideally, the reader will find ways to adapt the ingredients to meet the health needs of families in other regions of the United States.

Within each section are the key ingredients and recipes for implementing an ideal Healthy Homes program. The “cookbook” is intended to be used in conjunction with the Healthy Homes Transition Report: A Study of the Baltimore City Healthy Homes Division. The figure below is a schematic of the study with programmatic experiences, policy, and partnerships as the three themes on the lowermost tier.





# **RECIPE CARD**

## **Programmatic Experiences**

### **Ingredients:**

- Streamlined **training** opportunities for staff
- Judiciously selected **supplies** that are essential to the well-being of families served
- **Personnel** that consists of an adequate frontline staff to limit caseloads, social workers who can address significant social issues, and clerical staff to assist with referrals
- Restructuring of **home visits** to include a broad array of educational materials and staff expertise to address Healthy Homes while limiting time/paperwork and focused on the health and safety of staff
- **Data collection** procedures that capture the strengths and weaknesses in a Healthy Homes program

### **Instructions:**

1. Provide “big context” or background training, such as two-day course offered by National Center for Healthy Housing. Add other trainings as needed such as fire safety, Integrated Pest Management, injury prevention, and others that are suitable to local/regional issues. Find balance in frequency of and time needed in training to meet the needs of staff with varying skills and levels of expertise.
2. Prepare supply kits to address safety, pest management, water-related issues and cleanliness. Be aware that an abundance of and/or inconsistencies in supplies places burden on field staff.
3. Add adequate amount of field staff, clerical staff, and social workers to meet the needs of families.
4. Reduce time to prepare with efficient practices and paperwork. Integrate educational materials and mix with staff who are preparing for the National Environmental Health Association (NEHA) examination, for which a passing score is indicative of Healthy Homes expertise. Be cognizant of health and safety issues. Incorporate reliable data collection procedures including satisfaction survey.
5. Mix well and be prepared to make adjustments.

Baltimore City Healthy Homes Transition Project

## **NOTES AND SUGGESTIONS TO “THE COOK”**

### **TRAINING**

- According to field staff in the Baltimore City Healthy Homes Division, training must be “real world” rather than “academic.” That is, a training opportunity should immediately translate into a purposeful strategy to be worthwhile.
- Two day National Center for Healthy Housing, “Essentials for Healthy Homes Practitioners” course was described by administrative and field staff in Baltimore City as the most effective of the training they received for providing critical base of knowledge for every staff member in a Healthy Homes program (<http://www.healthyhomestraining.org>).
- Other useful training materials mentioned by program staff: carbon monoxide poisoning prevention, fire safety, Integrated Pest Management (IPM), community resources, injury prevention, safe sleep, water testing, blood borne pathogens, and mold prevention.
- Some field staff members become frustrated with too much time in training, particularly the environmental staff members known as sanitarians (Sans). Others welcomed training to help them gain expertise in healthy homes areas other than lead poisoning, particularly the medical staff members known as Public Health Investigators (PHIs) for whom training on the built environment is more likely to be new than for environmental sanitarians. We suggest that training opportunities be implemented slowly in digestible amounts that meet the most critical



<p><b>SUPPLIES</b></p>	<p>needs of all staff. Other training opportunities may be added as needs arise.</p> <ul style="list-style-type: none"> <li>■ Provision of supplies acts as an incentive and helps field staff to build rapport with families. Supply kits are prepared by Healthy Homes Division program staff members. Tools and educational materials address safety, pest management, water-related issues, and cleanliness.</li> <li>■ Suggested items: coloring books for children, roach disks, caulk, nightlights, outlet covers, temperature gauges, cleaning supplies, cribs, covered trash cans.</li> <li>■ In order to reduce burden for field staff members who have to carry supplies, we suggest that supply kits be designed to meet the needs of families with specific housing and safety issues and to reach families with age appropriate materials. For large items, we suggest trying a voucher system which requires families to pick up supplies at the Health Department. This was piloted in Baltimore City with covered trash cans.</li> </ul>
<p><b>PERSONNEL</b></p>	<ul style="list-style-type: none"> <li>■ <b>Field Staff:</b> As a Healthy Homes program expands, there are opportunities to address other issues that fit into a Healthy Homes model (e.g., mold citations), but the responsibility can be burdensome for a staff already taxed with full caseloads. Staff morale issues develop when members have too many responsibilities, including case management, referrals, and other paperwork in addition to direct service with clientele. We suggest hiring additional field staff members or that caseloads be limited when new responsibilities are absorbed by the program.</li> <li>■ <b>Social Workers:</b> Families referred to the Healthy Homes Division are often experiencing major problems beyond the scope of indoor air quality and housing problems. Field staff members in Baltimore City recommend that a program hire social workers who can handle the problems that are beyond the expertise of environmental and medical staff.</li> <li>■ <b>Clerical Staff:</b> A large enough clerical staff to help make appointments, follow-up on services received, and handle phone communication could relieve burden on field staff members who see clients and conduct case management activities.</li> </ul>
<p><b>HOME VISITS</b></p>	<ul style="list-style-type: none"> <li>■ In Baltimore City, the transition from a Lead Poisoning Prevention program to a Healthy Homes program increased the amount of time from a lead inspection conducted by environmental sanitarians and increased the amount of paperwork that followed. An ideal program is limited by the work that staff can do well. That is, in coping with the issues of time and paperwork, quality intervention should not be compromised. Aware of the burden on field staff, administrative staff in Baltimore City initiated efforts to make the home visit assessment more efficient and reduce paperwork.</li> <li>■ Focus groups with community members who received services from the Healthy Homes Division revealed that clients view the “education” component provided by field staff as the cornerstone of services that led them to remediate problems in their homes. We suggest that staff provide a purposeful educational curriculum and evaluate its effectiveness.</li> <li>■ Safety issues related to neighborhood gang and drug activity exist pre- and post-transition. However, new health and safety issues emerged with the transition from Lead Poisoning Prevention to Healthy Homes. For example: (1) Field staff members raise concern about exposure to indoor air contaminants such as carbon monoxide when testing for leaks during</li> </ul>

**DATA  
COLLECTION**

daily home visits and (2) Field staff members are uncomfortable about entering a basement to check water temperature, moisture, and other safety issues that are part of a Healthy Homes assessment. We suggest that administrative staff communicate efforts to respond to evolving issues to most appropriately serve the needs of families while protecting its staff members from harm.

- Baltimore City Healthy Homes Division staff recommend that transitioning programs make an effort to assess families with questions that are germane to the program's success and avoid superfluous questions that a) might make a family member uncomfortable and b) will not result in some type of action taken by the Healthy Homes program.
- While working to build rapport, staff note that pre-test data should accurately represent a family's knowledge prior to the home visit and education should not be initiated until after the pre-test is administered.
- Staff in Baltimore City recommend that transitioning programs incorporate a satisfaction survey to help gauge effective methods from the perspective of clientele.
- One database should be developed where staff can capture all of the information they collect. The more complicated the systems are, the more stressful for already burdened field staff.

## RECIPE CARD

### Policy

#### Ingredients:

- Expanded Healthy Homes Policy that adopts a holistic approach rather than specialized lead focus and ideally, addresses key policy issues such as funding, legal and enforcement issues, and social policy.
- Internal policy development as impacted by a new Assistant Commissioner for Healthy Homes, new administrative staff, and related communication issues.

#### Instructions:

1. Take existing Lead Poisoning Prevention program and add array of housing issues.
2. Request support from parent agencies and other support mechanisms. Invite families to request Healthy Homes assessment with or without a referral.
3. Assess local needs and lobby for Healthy Homes funding at local, state, and federal levels. Urge policymakers to engage community members in dialogue about housing.
4. Work to expand enforcement options with unresponsive landlords.
5. Be sensitive to social policy issues and the most pressing needs of families.
6. Prepare to interact with other agencies and medical providers.
7. Maintain open internal and external communication for a shared vision of successful program policies.

Baltimore City Healthy Homes Transition Project

## NOTES AND SUGGESTIONS TO “THE COOK”

### HEALTHY HOMES POLICY

- Lead Poisoning Prevention programs have existed on the state and federal levels for decades. With fewer lead poisoning cases anticipated in future years, concerns about program sustainability increase. Programs can adapt by expanding to focus on an array of housing issues.
- While programmatically, the transition in the Baltimore City Health Department moved relatively quickly, field and administrative staff assert that policy changes lag behind. For example, Maryland Department of the Environment continues to collect data solely on Lead Poisoning Prevention, not broad Healthy Homes issues. We suggest that programs request support from parent agencies and ancillary boards to assist in the transition process.
- Families should be able to request a Healthy Homes assessment with or without a lead specific referral. Staff in Baltimore City mentioned the Primary Prevention Initiative (PPI) in which staff members assess homes of low income pregnant women preventively (without a referral based on elevated blood lead level) as an important expansion of the Lead Poisoning Prevention program.

### KEY POLICY ISSUES

- **Funding Issues:** The quintessential public health issue is whether to cast a wide net or to narrowly target high risk families with the programmatic dollars available. The question is often resolved as a funding issue. That is, a program may have a competent staff that can provide “comprehensive education, enforcement and abatement” but must have the resources to do so. Staff in Baltimore City raised concern about the impermanence of funding, noting that they need to know if their jobs are sustainable and secure. We suggest that programs systematically assess local needs and lobby for Healthy Homes funding on the local, state, and federal levels.

INTERNAL  
POLICY  
DEVELOPMENT

- **Legal Issues:** Staff members in the Baltimore City Healthy Homes Division lack enforcement options to address code violations beyond lead. We suggest that a new Healthy Homes program be prepared to lobby for changes at the policy level to expand identification of housing-related issues and enforcement of existing laws. Furthermore, we propose that programs urge policymakers to engage community members in dialogue about housing and changes that would make a difference for them.
- **Social Policy Issues:** Resources and supplies are immaterial without access to safe housing, employment, food, and basic needs. Program policies, therefore, must be sensitive to the predominant concerns that families bring and strike a balance between a comprehensive approach and a targeted, client-focused approach.
- **Administrative changes:** The role of administrative staff includes policy development and management. One administrative staff member noted the interaction with city, state and federal agencies, national advocacy and training organizations, as well as with community-based organizations. The role of administrative staff in a Healthy Homes program is to continually ask how the program can reach more people most effectively.
- **Internal communication:** The lines of communication need to be multidirectional. Field staff members should feel that they are full participants in the transition process. Administrative staff in Baltimore City implemented case conferences as a forum to learn from peers about client issues and strategize for a shared vision of successful program policies.

## RECIPE CARD

### Partnerships

#### Ingredients:

- Enhanced ability to refer appropriately with referral system in place that is accessible to all staff members in order to provide consistent information to all clientele.
- Development of new goals for improving housing conditions and in turn, the health of families and limited only by an evolving list of partners.
- Systematized referrals that are accessible to all staff members in order to provide consistent information to all clientele.
- Establishment of key partnerships such as the fire department, the housing authority, child protective services, and asthma prevention.

#### Instructions:

1. Take existing referral sources in the city or jurisdiction where Healthy Homes program is located. Train staff members on all aspects of the referral process.
2. Watch carefully to avoid time delays in providing referral to a family for an identified problem.
3. Develop partnerships based on the broad range of issues that are raised as critical to families in your region.
4. Create referral system to accept newly identified referral partners.
5. Mix in partnerships with the fire department, housing authority, child protective services, and asthma prevention services. Continue to identify new partnerships and integrate.

Baltimore City Healthy Homes Transition Project

### NOTES AND SUGGESTIONS TO “THE COOK”

#### ENHANCED ABILITY TO REFER APPROPRIATELY

- The goal of forming partnerships is to connect families to needed resources. Transitioning to a Healthy Homes program required the Baltimore City staff members to increase their knowledge of referral sources in the city. While a list of referral resources should be evolving, the referral system should be clearly organized and set up to accept referrals that can be easily understood and adopted by all members of the staff.
- In the process of transitioning to a Healthy Homes program, assessment tools should require staff to document the various needs of families and learn how to make appropriate referrals to assist landlords, homeowners and tenants.

#### DEVELOPMENT OF NEW GOALS

- When focused solely on lead, staff members in Baltimore City recalled making referrals to lead abatement agencies. With the transition, staff members are challenged to learn about different agencies where referrals may be made.
- A Healthy Homes program can provide services on a broad range of issues. For example, in Baltimore City, field staff distributed cribs noting that data indicate the incidence of Sudden Infant Death Syndrome (SIDS) was higher in homes where children sleep in the caregiver’s bed.
- We suggest that a Lead Poisoning Prevention program transitioning to a Healthy Homes program establish goals, develop partnerships, and have a cadre of resources and materials to extend toward housing problems other than lead.

**KEY  
PARTNERSHIPS**

- A program's list of partners is not stagnant, but is rather an evolving list. Jurisdictions will differ from one another in the essential partnerships for an ideal program, but several were mentioned as important from the start of any Healthy Homes program: fire department for installation and repair of smoke detectors, housing department for code enforcement, child protective services for handling crisis situations beyond the scope of a field staff member, and asthma prevention services for managing the environmental health risks in the home that may have an impact on school and work performance of its members.