Healthy Housing Solutions Inc.

The Role of Hospital Community Benefit Requirements in Reducing Environmental Health Disparities

Children's Mercy

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BACKGROUND

The Patient Protection and Affordable Care Act (Affordable Care Act), Pub. L. No. 111-148, added section 501(r) to IRS reporting requirements that hospitals meet to qualify for tax exemption. These address a hospital organization's financial assistance policy, policy relating to emergency medical care, billing and collections, and charges for medical care, and other factors. IRS Form 990, Schedule H Part I requires hospitals to document and assign dollar values to all activities related to the improvement of community health; Part II documents other **community benefits** activities or programs that address underlying causes of health problems and thus improve health status and quality of life. They focus on the **root causes of health problems such as poverty, homelessness and environmental hazards** (IRS Form 990 Instructions). The Community Health Needs Assessment (CHNA) is the tool a hospital uses to collect data on community needs and set program priorities to address them.

WHAT COUNTS AS A COMMUNITY BENEFIT?

Physical improvements and housing	• Provision or rehabilitation of housing for vulnerable populations, such as removing building materials that harm the health of the residents, neighborhood improvement or revitalization projects, provision of housing for vulnerable patients upon discharge from an inpatient facility, housing for low-income seniors, and the development or maintenance of parks and playgrounds to promote physical activity.
Economic development	• Assisting small business development in neighborhoods with vulnerable populations and creating new employment opportunities in areas with high rates of joblessness.
Community support	• Child care and mentoring programs for vulnerable populations or neighborhoods, neighborhood support groups, violence prevention programs, and disaster readiness and public health emergency activities, such as community disease surveillance or readiness training beyond what is required by accrediting bodies or government entities.
Environmental improvements	• Activities to address environmental hazards that affect community health, such as alleviation of water or air pollution, safe removal or treatment of garbage or other waste products, and other activities to protect the community from environmental hazards.
Leadership development and training for community members	• Training in conflict resolution, civic, cultural, or language skills; and medical interpreter skills for community residents.
Coalition building	• Participation in community coalitions and other collaborative efforts with the community to address health and safety issues.
Community health improvement advocacy	• Activities to safeguard or improve public health, access to health care services, housing, the environment, and transportation.
Workforce development	• Recruitment of physicians and other health professionals to medical shortage areas or other areas designated as underserved, and collaboration with educational institutions to train and recruit health professionals needed in the community.

WHAT IT COSTS SOCIETY WHEN HOME ENVIRONMENTAL CONDITIONS ARE NOT ADDRESSED

Societal costs for medical treatment and the long-term impact of cognitive and other disorders on lifetime productivity continue to grow.

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Landrigan et al. (2002) estimated the annual costs for services related to **lead poisoning at $43.4 billion** for one birth cohort, including the medical and economic costs of lost lifetime earnings.	Barnett and Nurmagambetov (2011) estimated the societal costs for **asthma at $56 billion** in 2007.	CDC (2004) concluded that eliminating home-based exposure to lead was the only proven method of primary prevention. Gould (2009) estimated **every $1.00 spent on lead hazard control produced $17.00 in net savings.**	Nurmagambetov et al. (2015) estimated the cost of **each asthma symptom-free day** that results from a home-based, multi-trigger, multi-component intervention with an environmental component at **$12 - $57.**

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BARRIERS TO INCLUDING PHYSICAL IMPROVEMENTS AND ASSESSMENT AS HOSPITAL COMMUNITY BENEFITS

The CHNA does not look "upstream" to assess the social determinants of health and health disparities

Frieden's health impact pyramid
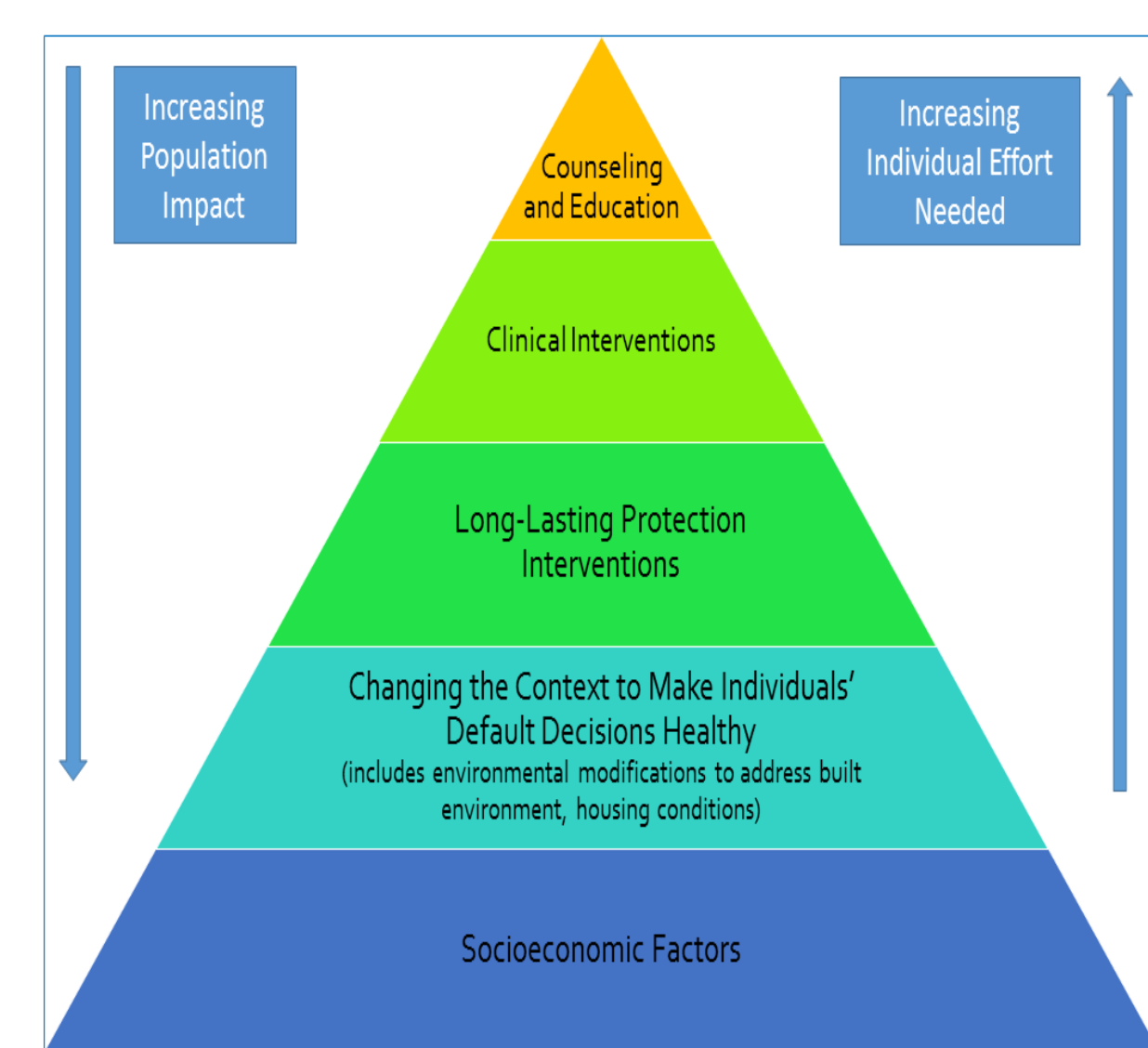
Frieden (2010) suggests that interventions to address socioeconomic factors have a greater impact on population health than more traditional, clinically-focused or educational actions. **Changing the context of individuals' decision-making,** such as improving housing conditions, can have impact even if there is no effort to change behaviors.

Jacobs (2011) has demonstrated that residential segregation, lack of housing mobility, and homelessness produce adverse health outcomes, particularly **childhood lead poisoning and asthma.**

The CHNA does not collect housing, built environment, and environmental health data to demonstrate need

Hospitals may need support to collect or analyze housing-related data. In-house staff may lack expertise or technical resources, such as mapping tools. Secondary sources routinely used in CHNAs may not include housing condition data or benchmark it to national objectives, such as *Healthy People 2020.*

Items that could be included in CHNA surveys
• Percentage of households with at least 1 of 4 housing problems: overcrowding, high housing costs, or lack of kitchen or plumbing facilities. (American Housing Survey)
• Does your home have broken plaster or peeling paint (interior)? (American Housing Survey)
• Does your home frequently have a mildew odor or musty smell? Does your home have signs of mice, rodents, or cockroaches in last 12 months? (National Survey of Lead and Allergens in Housing)
• Renters who report being burdened by housing costs (American Communities Survey)

Housing and mapping resources
Community Commons http://www.communitycommons.org/chna/
County Health Rankings and Roadmaps http://www.countyhealthrankings.org
Policy Map https://www.policymap.com/
Healthy Communities Assessment Tool www.healthyhousingsolutions.com
1,000 Communities http://www.nchh.org/Policy/1000Communities.aspx
Community Needs Index http://cni.chw-interactive.org/
CDC's Community Health Status Indicators http://www.cdc.gov/CommunityHealth/

### The CHNA does not include knowledgeable housing stakeholders in the conversation

Important Housing and Community Development Stakeholders

• Local departments of housing and code violations
• State and local health department Childhood Poisoning Prevention Programs
• Home inspectors
• Nonprofit community development corporations (e.g., NeighborWorks America, Low Income Support Corporation, Enterprise Community Partners, Nehemiah Project)
• Neighborhood associations
• Volunteer housing rehabilitation programs (e.g. Habitat for Humanity, Rebuilding Together)
• Workforce development programs
• Advocates for affordable housing and community health

CHILDREN'S MERCY HOSPITAL'S 2016 CHNA

ABOUT CHILDREN'S MERCY

Children's Mercy serves children from across the states of Missouri and Kansas, including the Kansas City region, Clay and Jackson Counties in Missouri and Johnson and Wyandotte Counties in Kansas. It operates 2 hospitals, and numerous pediatric clinics and outpatient centers in both states. It has received national recognition from U.S. News & World Report in 10 pediatric specialties.
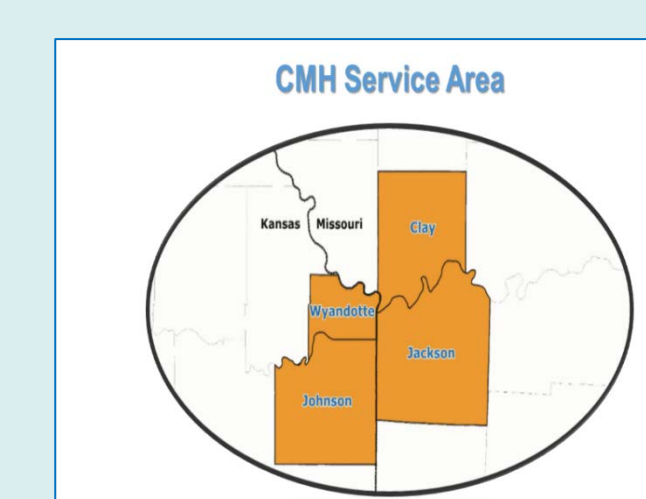
Children' Mercy serves as a national leader in translational research and primary prevention strategies for environmentally-triggered diseases. Its pediatric, allergy and immunology, and environmental health staff have contributed to the development of practice parameters on home assessments and exposure control of mold, dust mites, cockroaches, rodents, and furry animals as members of the Environmental Assessment Workgroup for the Joint Task Force on Practice Parameters.

The Center for Environmental Health (CEH) provides a variety of assessment and outreach services to identify environmental hazards in the home, including asthma triggers, exposure to lead-based paint, indoor air quality and sources of injury. CEH offers specialized programs that have served more than 2500 families, assessed 750 homes, and obtained grants for home repairs. CEH staff have assessed 60 school facilities including 1500 classrooms, and provided training and education to hundreds of school staff.

INNOVATIVE PRACTICES TO INCORPORATE HOUSING AND SOCIAL DETERMINANTS IN THE 2016 CHNA
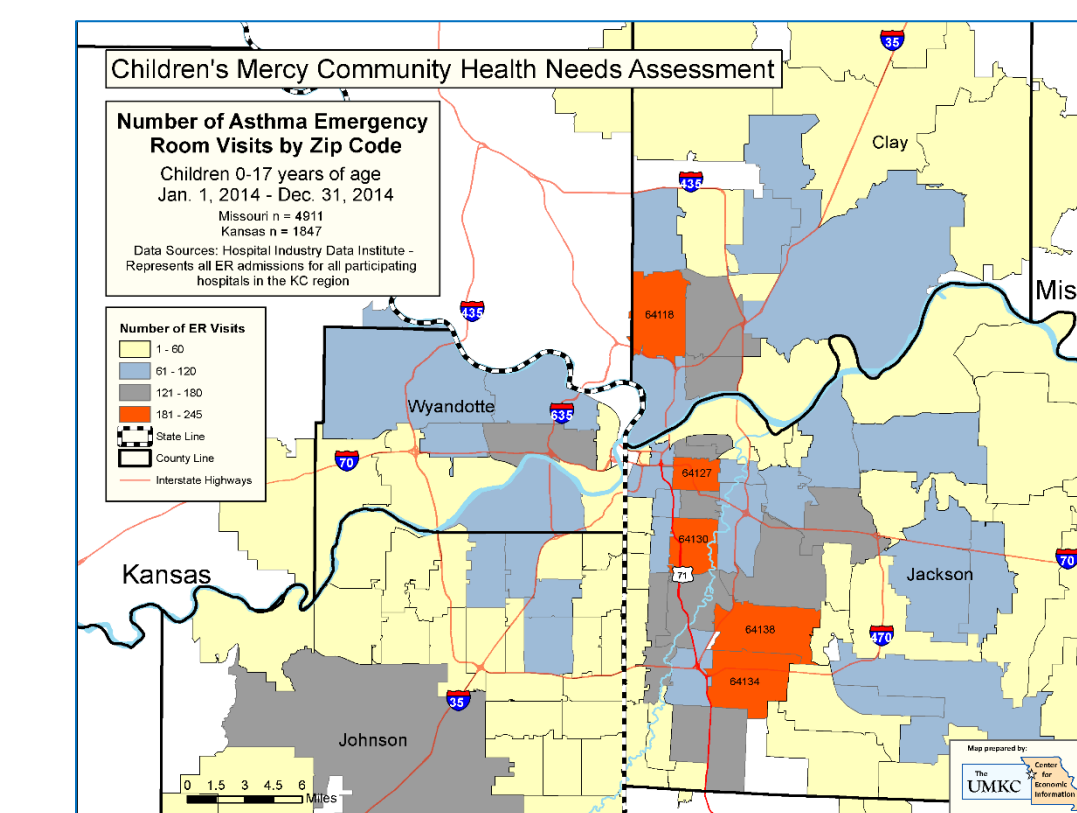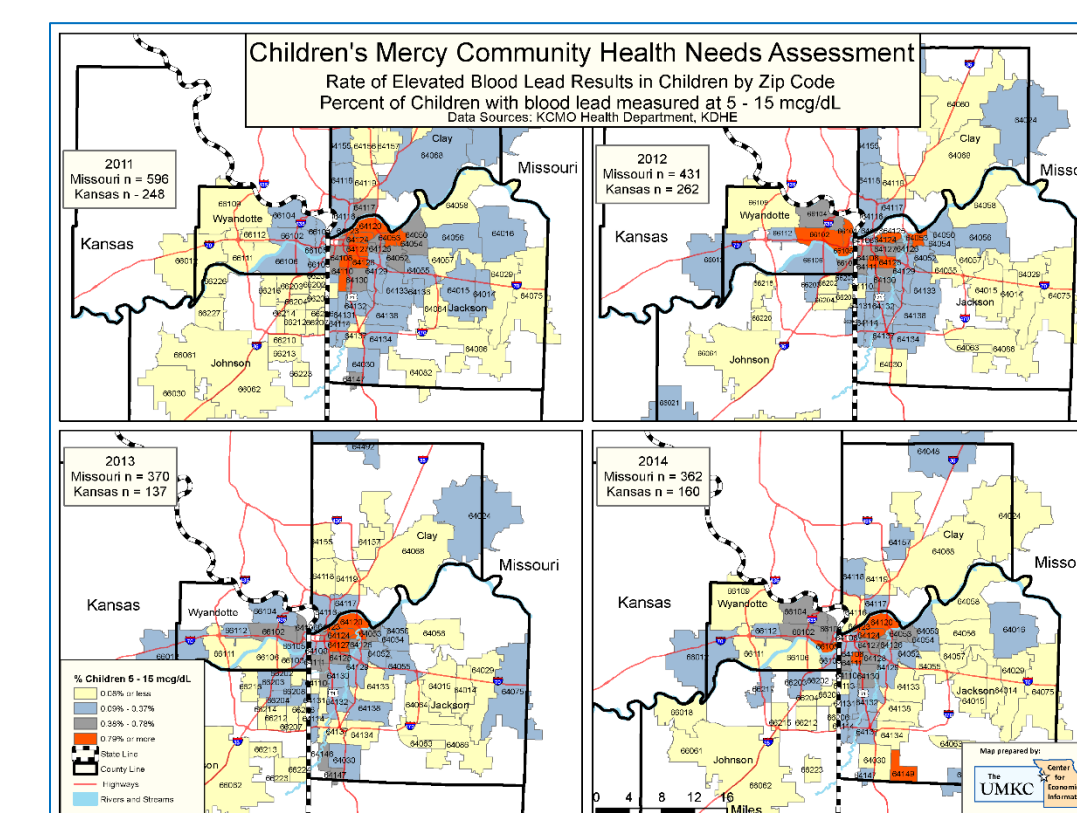

Innovations in Data Collection

• **New questions** in surveys related to:
 • Housing conditions
 • Neighborhood conditions and safety
 • Financial insecurity related to housing and food
 • Diagnosis of lead poisoning
 • Need for an Individualized Education Program
 • Lost school days associated with asthma and injury
 • Asthma-related urgent care and Emergency Room visits and hospitalizations
• **Telephone surveys** of 1,000 families in the service area
• **Neighborhood "hotspots"** for home assessment services identified through geocoded and mapped lead poisoning surveillance data and asthma-related hospital visit data

Innovations in Community Engagement

• Included housing and community development representatives **in focus groups**
• Included representatives from community and faith-based housing, community development and workforce development in **online surveys of stakeholders**
• Reviewed draft CHNA findings at a March 11, 2016 **Children's Health Summit** attended by over 170 community representatives
• Implemented a **concept-mapping exercise** to identify community priorities
• Engaged additional Children's Mercy and community stakeholders through **tailored presentations of data and concept-mapping activities**

Cumulative Participant Ratings of the Importance/Impact/Ability to Measure Change for 26 Issues Affecting Children's Health at the CMH Children's Summit (Top Score=15)
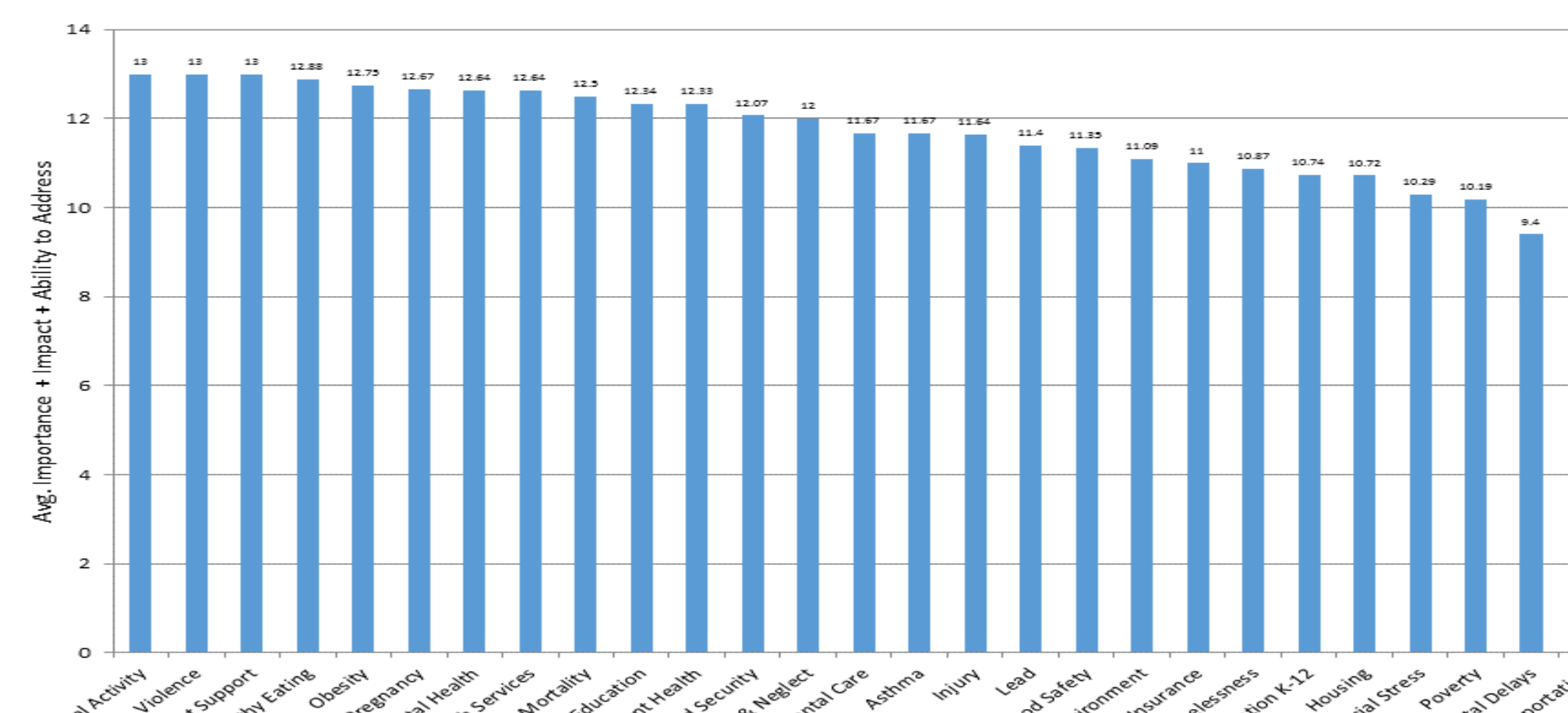

CHNA FINDINGS

Key Findings on Housing and Socio-economic Disparities

• **Nineteen percent** of children across the region **live below the federal poverty line.**
• More than **6,900** K-12 children enrolled in public school districts across the region were considered **homeless.**
• **Close to 14 percent of children missed five or more school days** and of these 3.8 percent missed 10 or more days.
• **Financial strife** was the most frequently experienced Adverse Childhood Experience (ACE) by children in the region reported by parents and caregivers.
• **About 50 percent of low-income families in the region live in housing that was built before 1950.** This leaves them at risk for potential environmental exposures including mold and lead.
• **Close to 44 percent** of all families state that they "sometimes" or "always" **worry about paying the monthly mortgage or rent.**
• The non-Hispanic black infant mortality rate is **more than double the rate than non-Hispanic white infants.**

PRIORITIES AND PRELIMINARY PLANS FOR IMPLEMENTATION

Children's Mercy considers all of the community health needs identified by the community and deliberated by internal hospital staff as important. It will continue to grow its efforts to address access to healthcare and improve nutrition and food security. The priority-setting process has also highlighted new initiatives for the hospital and for community-related support.

CMH Internal Rating of Significant Health Needs n=81
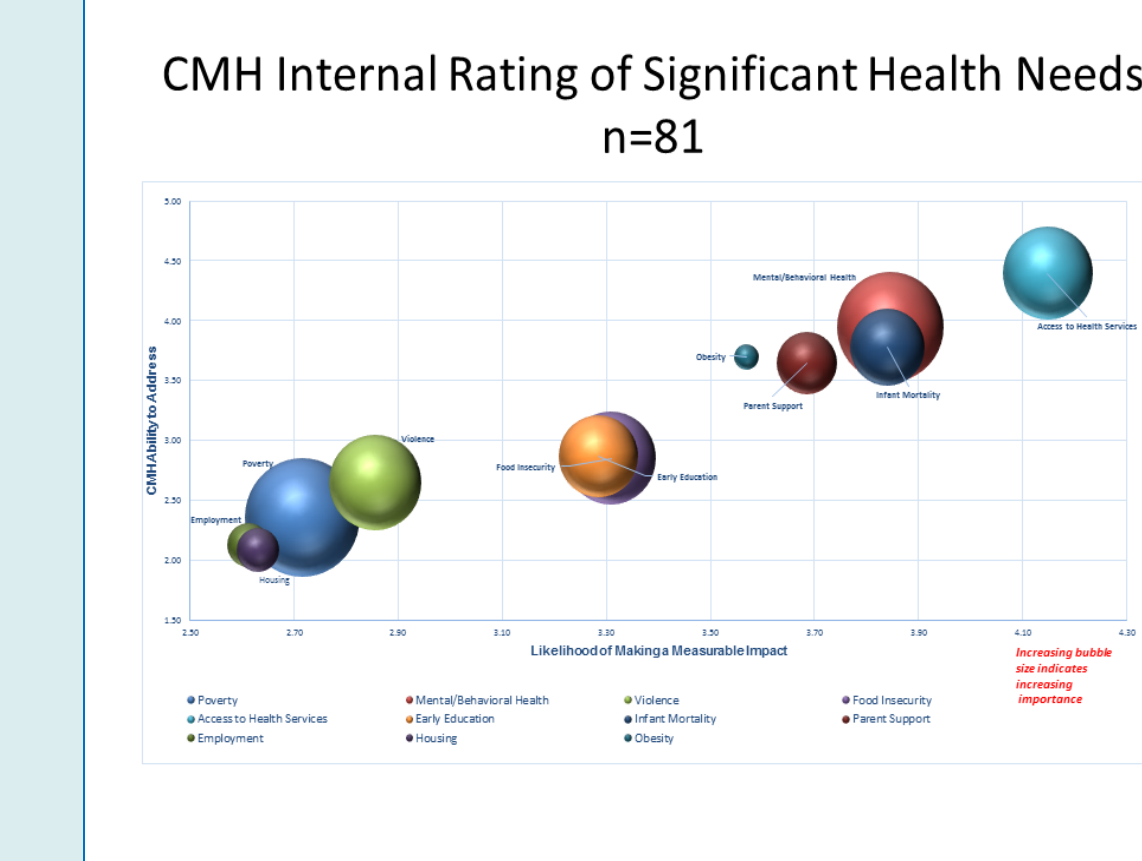
The hospital's senior staff will review the draft CHNA June 14, 2016. Decisions about how implementation activities will be documented as community benefits will occur by Fall 2016.

2016-2019 New CMH Priority Health Needs and the Top 3 Implementation Activities under Consideration

| New Priorities | Mental/Behavioral Health | 1. Create and support existing community-wide learning collaborations with agencies and leaders to build trauma-informed communities that promote resiliency in young children. 2. Continue Children's Mercy to increase staff understanding the effects of and recognize the symptoms of trauma. 3. Work with key departments inside Children's Mercy and outside organizations to intervene early to prevent mental health problems and build resilience in youth, and strengthen mental health delivery systems. |
| | Infant Mortality | 1. Provide support and consultation to the Fetal Infant Mortality Review and Community Action Teams throughout the region. 2. Support existing community collaborations to improve infant health outcomes. 3. Continue to support and deepen the work of the Fetal Health Center. |

Issues Not Selected as New CMH Priority Health Needs and the Top 3 Implementation Activities

| Continue to Support through Community Benefit Programs | Housing | 1. Continue to support Children's Mercy-based programs and initiatives related to the evaluation and reduction of environmental triggers and housing issues that may influence a child's health. 2. Screen for and provide access to community resources to patients who are struggling with housing issues. 3. Support community organizations in their effort to address housing insecurity among children and families. |
| | Poverty | 1. Build and strengthen partnerships with community agencies that address the social determinants of health and work toward solutions. 2. Continue to screen and provide resources for Children's Mercy patients. 3. Train Children's Mercy staff on the effects of poverty on children's health and development. |

TAKE AWAY MESSAGES

• It takes time and imagination to include housing and home environmental initiatives in CHNAs.
• To move these issues to a higher priority on a hospital's agenda, collect the right data and engage the right stakeholders.
• Expect even more progress on addressing the social determinants of health in the next cycle of CHNAs.

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