Post CHNA – **Developing an Intervention**

Root Cause Analysis

Jana Distefano, MPH – *Community Health Consultant & Analyst*

You've just received the final version of your PRC Community Health Needs Assessment (CHNA) – more than 200 pages of information about health status, behaviors and areas of opportunity to improve your community's health. But where do you go from here?

IRS requirements state that, in addition to conducting a needs assessment, hospitals must identify and prioritize health needs, and subsequently provide a written implementation strategy. An important part of the PRC CHNA is that it provides you with a list of identified community health needs — "areas of opportunity" — to help narrow the focus. These areas are identified based on the data revealed through the assessment. This short list helps organizations begin to prioritize the health issues that should be addressed.

Once health priorities are established, the next step is to begin thinking about creating the most efficient and effective interventions. Hospitals should consider successful programs implemented in other communities, talk to local organizations already combating the issue and collaborate or review evidence-based practices. Another method to consider when beginning program development is to conduct a "root cause analysis" or RCA. An RCA helps users identify the antecedent conditions of a problem and create upstream approaches to health

interventions[1]. In other words, preventing the problem at the source.

For example, when using RCA to look at the topic of obesity, researchers consider the many factors responsible for population health: individual factors; individual behaviors; public services and infrastructure; living and working conditions; and social, economic and political factors.[2]

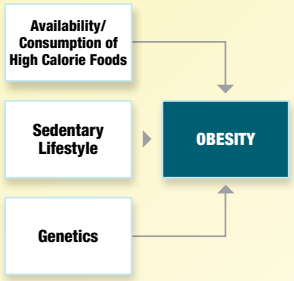
The first step is to ask "why" an issue exists. In ***Figure A***, researchers first came up with three reasons for obesity – sedentary lifestyles, genetics and the availability and consumption of high calorie foods.

The next step is to explore each of those reasons further. Users continue to ask "why," expanding the diagram in ***Figure B*** to the left until you've exhausted all possible rationales. Asking topic experts and community organizations, and considering existing research, are ways to strengthen your diagram(s).

In the end, you should be able to start at the left dfside of your page and form one logical sentence following the arrows across the page. Based on this, our example would read: Lower income individuals may live in neighborhoods that lack safe infrastructure for outdoor activity, which leads people to spend hours in front of televisions, which causes families to live sedentary lifestyles. A sedentary lifestyle can lead to obesity.

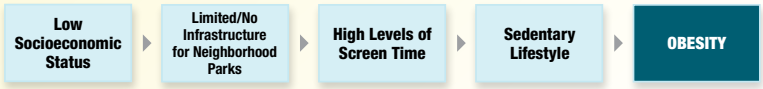
Ask "Why" an Issue Exists

Figure A



Expand All Possibilities

Figure B

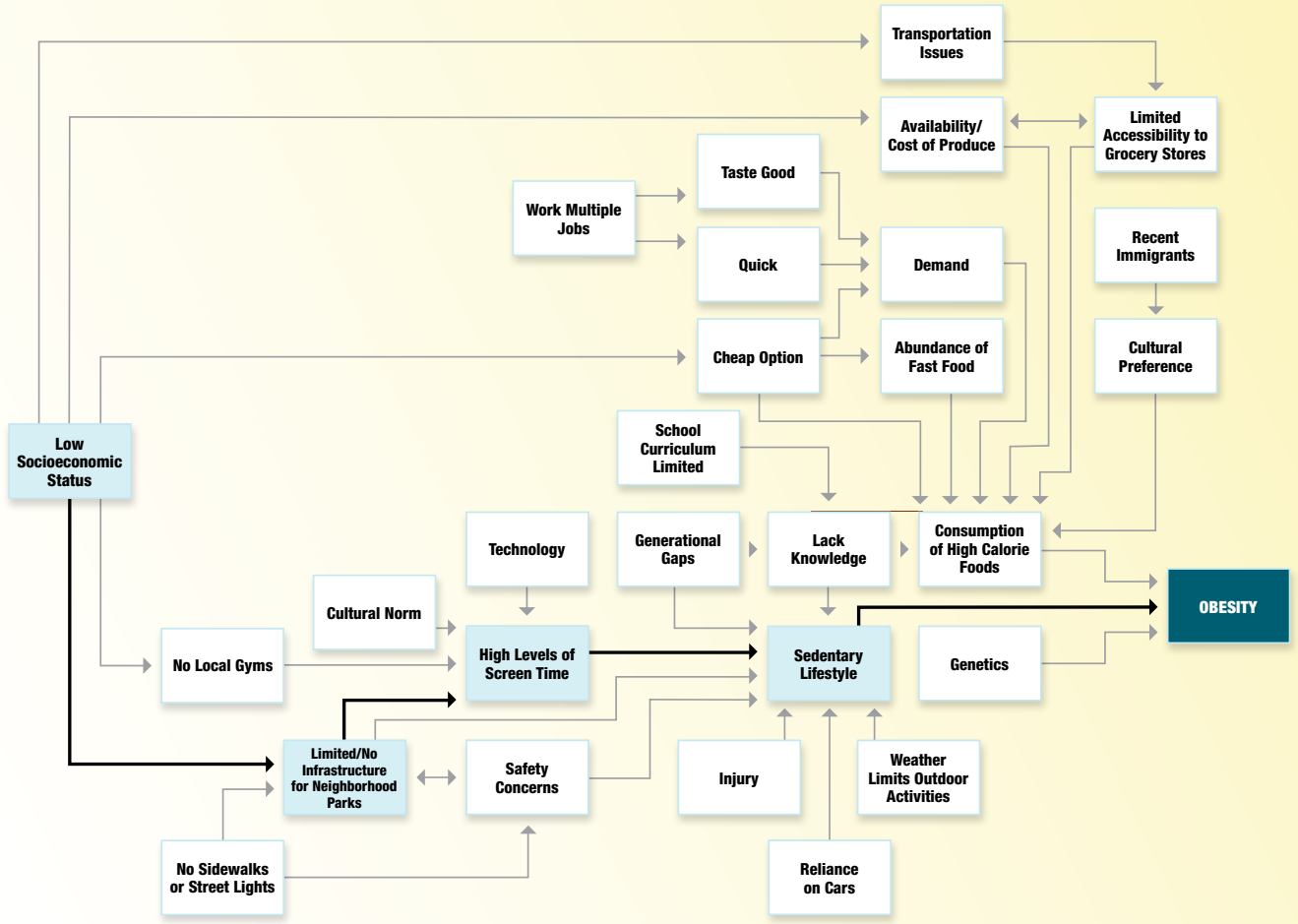


Continue to build your diagram until you believe you have the complete picture. The complete RCA may look similar to ***Figure C***, which allows users to examine all the social determinants affecting a health topic. It provides a simple, straightforward approach to examining complex health issues. Users can then decide where an intervention should occur along the causal pathway in order to have the most impact.[3]

For example, an educational program aimed at increasing physical activity may not be "upstream" enough to have an impact. Users can decide where they want to create interventions and shade these boxes, but keep within the overall diagram to ensure the program takes into account other variables. The final diagram illustrates that there may be many reasons why an individual leads a sedentary lifestyle, which contribute to their higher weight status. Possible upstream approaches to improve physical activity could include interventions that improve the built environment by adding street lights, or working with city planners to build sidewalks.

The Complete Picture

Figure C



Once your organization has decided on a path(s) for intervention, the next step is to develop a logic model. Most logic models examine inputs, outputs (what and who) and outcomes. Some take into consideration assumptions and external factors. Logic models provide a global perspective of the program and can help create evaluation tools.[4] In addition, it's critical to have SMART goals and objectives (Specific, Measurable, Attainable, Relevant and Time-Bound), so you already have measurements for evaluation purposes.[5]

Upstream approaches to health interventions may focus on policy development, social marketing campaigns or environmental planning, but regardless of the mechanism, they should all be uniquely designed to focus on the "real problems" at hand. •

References

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[2] Santa Barbara County Public Health Department. (2011, April). *Community health status report: Premature death and preventable illness in Santa Barbara County*. Retrieved January 29, 2013, from http://www.countyofsb.org/uploadedFiles/phd/EPI/CHSR2011v6.pdf#page=5&pagemode=bookmarks

[3] Renger, R. & Titcomb, A. (2002). A three-step approach to teaching logic models. *American Journal of Evaluation, 23*(4), 493-503.

[4] Kaplan, S., & Garrett, K. (2004). The use of logic models by community-based initiatives. *Evaluation and Program Planning, 28*, 167-172.

[5] United Way of Greater Richmond & Petersburg. A guide to developing an outcome logic model and measurement plan [PowerPoint slides]. Retrieved September 17, 2013, from http://www.yourunitedway.org/sites/uwaygrp.oneeach.org/files/Guide_for_Logic_Models_and_Measurements.pdf

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