Systems Thinking in Communities:

Understanding the Causes of Inactivity, Poor Diet/Nutrition, and Childhood Obesity in Kane County, Illinois

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Introduction

Making Kane County Fit for Kids is one of 49 community partnerships participating in the national *Healthy Kids, Healthy Communities* program of the Robert Wood Johnson Foundation (www.healthykidshealthycommunities.org). The purpose of this *Making Kane County Fit for Kids* project was to introduce systems thinking at the community level by identifying the essential parts of the Kane County, Illinois system and how the system influences policy and environmental changes to promote healthy eating and active living as well as to prevent childhood obesity. To accomplish this goal, community partners and residents participated in a group model building session and discussions. The group model building exercises were designed by staff from Transtria LLC and the Social System Design Lab at Washington University in St. Louis, Missouri as part of the *Evaluation of Healthy Kids, Healthy Communities* funded by the Robert Wood Johnson Foundation. These exercises actively involved a wide range of participants in modeling complex systems and provided a way for different representatives (e.g., residents, government agencies, community-based organizations, businesses) to better understand the systems (i.e., dynamics and structures) in the community (see the *Healthy Kids, Healthy Communities Group Model Building Facilitation Handbook*, www.transtria.com/hkhc). Overall, the evaluation was designed to assess policy, system, and environmental changes as a result of the community partnerships' efforts to increase healthy eating and active living in order to reduce childhood obesity.

Kane County, Illinois: Background and Local Participation

Kane County, Illinois is located 40 miles west of Chicago and is home to 507,000 people. Among Kane County's 27 municipalities are the second (Aurora, IL) and eighth (Elgin, IL) largest cities in Illinois, which form the core of a dense urban corridor in the eastern third of the county that follows the curve of the Fox River, flowing north to south through the entire county. The western two-thirds of the county is less densely populated and equally divided between suburban and rural communities.

The main population of Kane County is centered along the eastern part of the county along Fox River. The western edge of the county is rural with a lot of farmland. Kane County focused on three target community areas in the county with exiting partnerships with local community coalitions. These community areas are Aurora and Elgin and the mid-county region known as the Tri-Cities which includes the small municipalities of St. Charles, Batavia and Geneva as well as rural areas villages directly west of them. The three community areas account for more than 70% of Kane County's total population.

The Kane County, Illinois partnership was called Making Kane County Fit for Kids. The purpose of this partnership was to reverse the epidemic of childhood obesity, which predates HKHC and was founded in April 2008. The partnership was formed as a part of the county's comprehensive planning process. A county-wide assessment was completed, which determined chronic disease was the major threat to the community. Childhood obesity was prioritized because obesity was a major contributor to chronic disease. The goal was to have the healthiest county in the state of Illinois by 2030.

The lead agency was the Kane County Health Department, which was established in the county for over 25 years. The health department was also working closely with the Kane County Department of Development and Community Services on this initiative. Within the health department, the staff was very separated into their own project areas. The department worked to increase communication and break down the silos, so that work was not being duplicated and all staff was on the same page. It was a challenge because the department was a part of over 40 collaboratives and 9 partnerships, so fatigue was an issue with participants in these groups.

The Fit Kids 2020 Plan had nine different sectors, and the partnership developed partners across all nine of the sectors: built and natural environment, economic strength, faith community, family, culture and community, food policy, healthcare and medicine, mobility, recreation and lifestyle, schools and education. The county departments involved in the partnership include: development and community services, planning, and transportation.

Making Kane County Fit for Kids' Priorities and Strategies

The partnership and capacity building strategies of *Making Kane County Fit for Kids* included:

- **Funders Consortium:** A public-private partnership, the Fit For Kids Funders' Consortium was established to efficiently and effectively raise and disperse funds to support the comprehensive, coordinated, community-based health promotion initiatives throughout Kane County.
- **Mini Grants:** A mini grant program was established through the Fit For Kids Funders' Consortium designed to provided funding to local government and community-based organizations to implement policy and environmental strategies related to healthy eating and active living. The mini grants was an opportunity to begin implementing the county-wide long range planning products that were created as part of HKHC.

The healthy eating and active living strategies of *Making Kane County Fit for Kids* included:

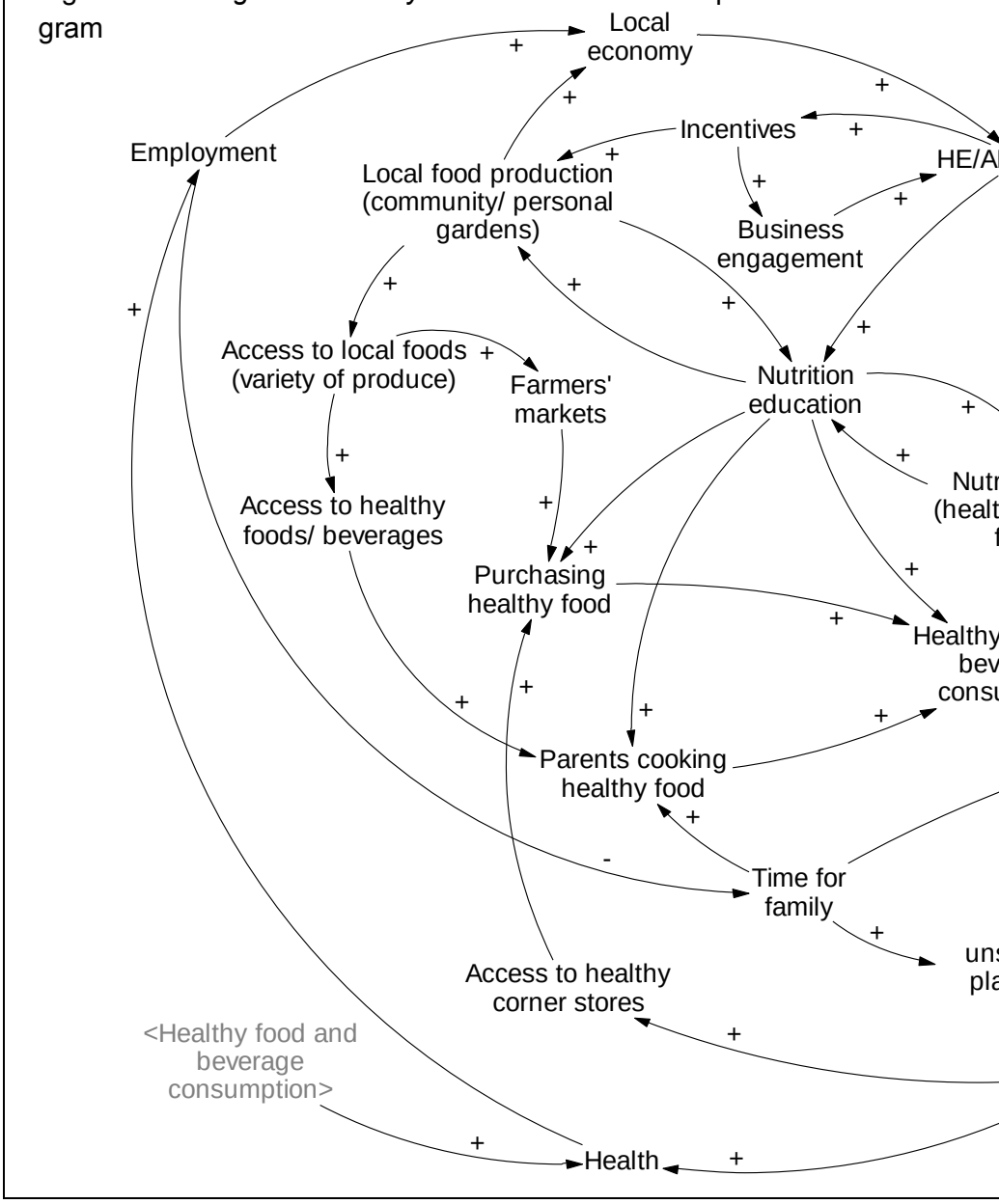
- **City/Comprehensive Plan:** Long range planning products were created and adopted designed to inform transportation, land use, and health over the next decade for Kane County.
- **Farmers' Markets:** Three farmers' markets started accepting LINK benefits, which is the Supplemental Nutrition Assistance Program for Illinois. Additionally, three markets expanded their hours to include winter markets, while one summer market adjusted their hours of operation to accommodate working families.
- **Community Gardens/Food Banks:** Kane County expanded to 1,398 garden plots available for lease, up from approximately 800 garden plots available in 2010. Gardens were located on vacant lots, faith-based properties, city properties, parks, and at other organizations. Agreements were made between specific garden locations and local food banks to donate a portion of the produce grown at the garden.
- **Active Transportation:** As a result of the transportation master plan being adopted and the mini grants to communities, several infrastructure changes were made to enhance Safe Routes to School along with pedestrian, bicycle, and public transit infrastructure improvements.
- **Parks and Play Spaces:** Eight different parks and play spaces were enhanced throughout Kane county from key policy and environmental changes, including playgrounds, a climbing wall, other equipment, and a land use policy designating space to be used for a park.
- **Child Care Nutrition and Physical Activity Standards:** Piloted nutrition and physical activity standards (e.g., one hour of physical activity a day and five servings of fruits and vegetables) at six child care facilities.

For more information on the partnership, please refer to the Kane County case report (www.transtria.com/hkhc).

Systems Thinking in Communities: Kane County, Illinois

"Systems thinking" represents a range of methods, tools, and approaches for observing the behaviors of a system (e.g., family, community, organization) and how these behaviors change over time; changes may occur in the past, present, or future. Figure 1 illustrates a system of policies, environments, local collaborations, and social determinants in Kane County, Illinois that influence healthy eating, active living, and, ultimately, childhood obesity. This system and the dynamics within the system are complicated with many different elements interacting.

Figure 1: *Making Kane County Fit for Kids* Causal Loop Diagram



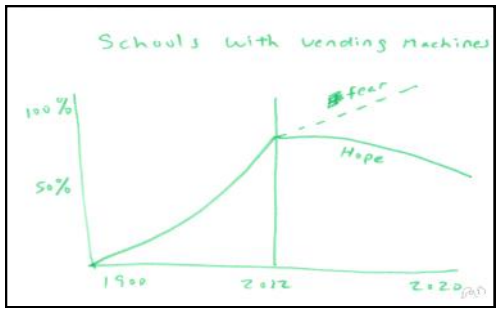
Models, such as Figure 1, provide a way to visualize all the elements of the system and their interactions, with a focus on causal relationships as opposed to associations. Through the model, specific types of causal relationships, or feedback loops, underlying the behavior of the dynamic system, can be identified to provide insights into what is working or not working in the system to support the intended outcomes (in this case, increases in healthy eating and active living, and decreases in childhood overweight and obesity). In system dynamics, the goal is to identify and understand the system feedback loops, or the cause-effect relationships that form a circuit where the effects "feed back" to influence the causes.

Group Model Building

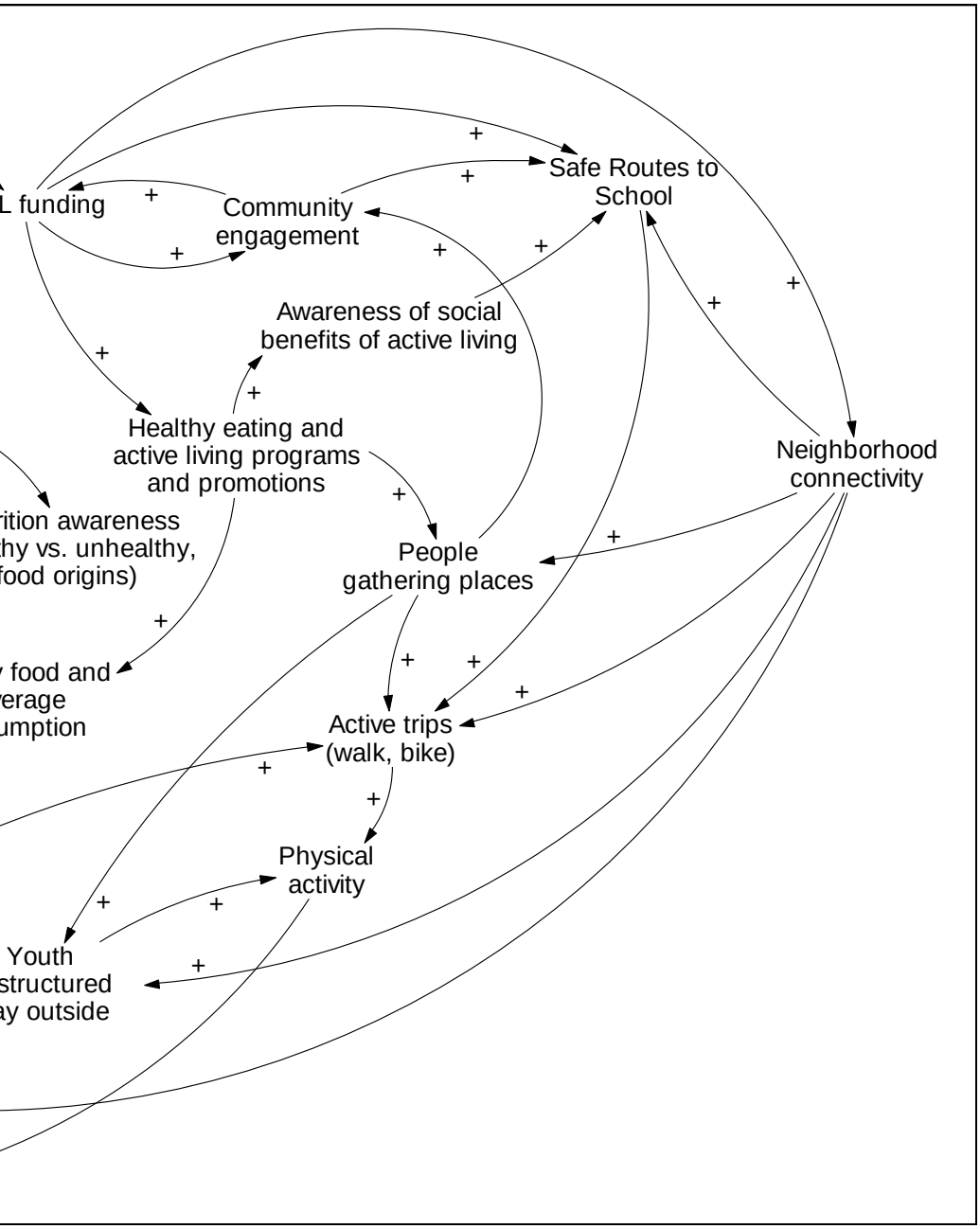
Members of the *Making Kane County Fit for Kids* partnership participated in a group model building session in April, 2012 and generated this system. also referred to as a causal loop diagram (Figure 1). Participants in the group model building session included residents and representatives from residents, government agencies, community-based organizations, and businesses. The group model building session had two primary activities: 1) a Behavior Over Time Graph exercise; and 2) a Causal Loop Diagram (or structural elicitation) exercise.

<u>Behavior Over Time Graphs</u>

To identify the range of things that affect or are affected by policy, system, and environmental changes in Kane County related to healthy eating, active living, and childhood obesity, participants designed graphs to name the influences and to illustrate how the influences have changed over time (past, present, and future). In this illustration for schools with vending machines, the number of schools with vending machines has increased steadily over many years



and the participant hopes that this increase will reverse into the future. Each graph is a tool to increase the use of common, specific language to describe *what* is changing in the community as well as *when*, *where*, and *how* it is changing. The graphs capture participants' perceptions of the influence, or variable, and through the graph, the participant tells their story. These perceptions are based on actual data or evidence, or they are part of the participants' lived experience.



Causal Loop Diagram

To examine the relationships among the variables from the behavior over time graphs, participants worked together and with facilitators to develop a causal loop diagram. In Figure 1, the words represent variables of quantities that can increase and decrease over time (i.e., the behavior over time graphs). These variables are influenced by other variables as indicated by the lines with arrows. The lines with arrows represent causal relationships - this is what is known about the system and how it behaves.

One feedback loop is: healthy eating (HE)/ active living (AL) funding → incentives → business engagement → HE/AL funding.

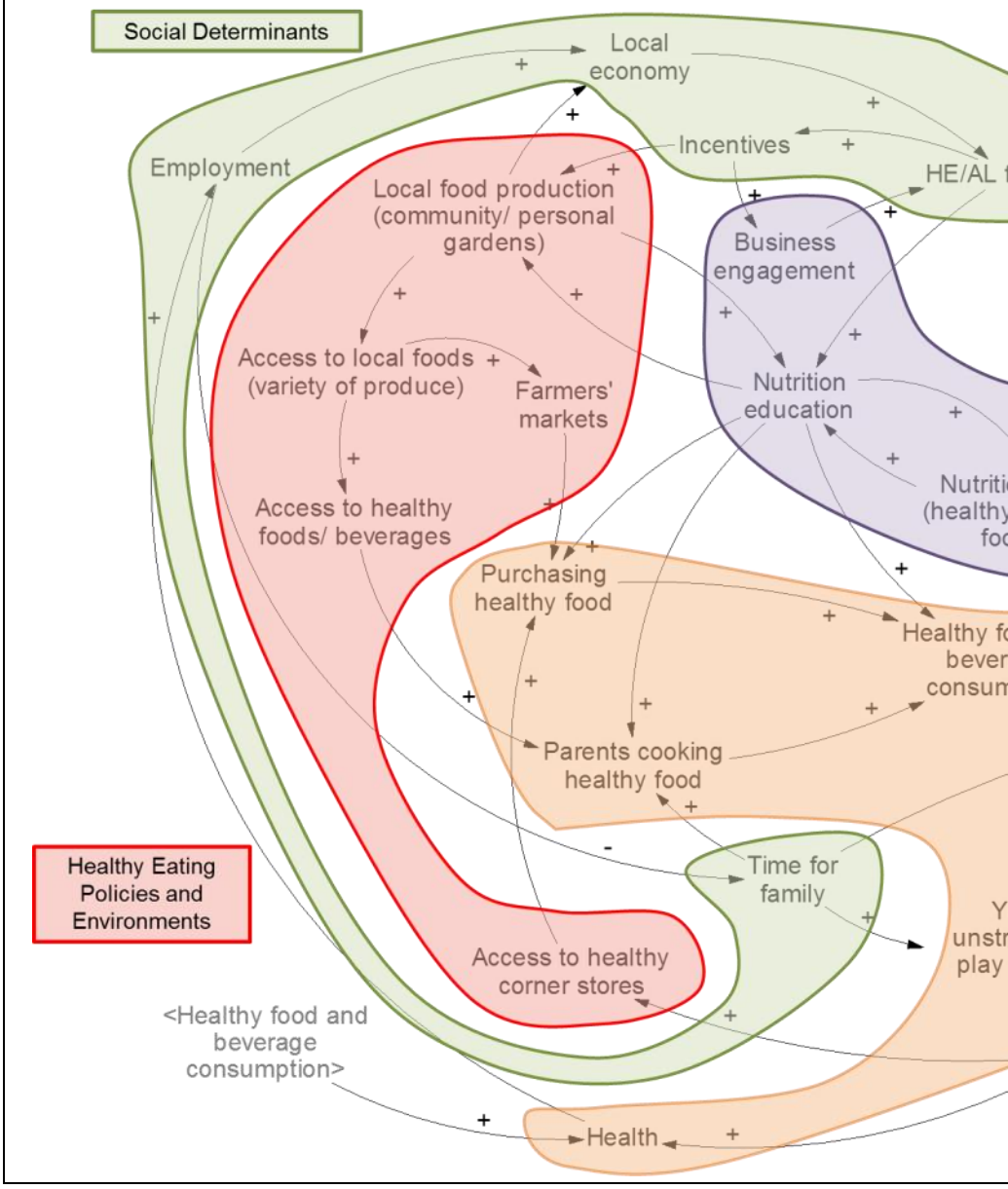
What is important to notice is that there are other feedback loops interacting simultaneously to influence or to be influenced by HE/ AL funding. Some variables may increase HE/AL funding while other variables limit it. Determining the feedback loop or loops that dominate the system's behavior at any given time is a more challenging problem to figure out, and ultimately, requires the use of computer simulations.

Based on this preliminary work by the *Making Kane County Fit for Kids* partnership, this "storybook" ties together the behavior over time graphs, the participants' stories and dialogue, and feedback loops from the causal loop diagram to understand the behavior of the system affecting health in Kane County, Illinois and to stimulate greater conversation related to Kane County 's theory of change, including places to intervene in the system and opportunities to reinforce what is working. Each section builds on the previous sections by introducing concepts and notation from systems science.

Causal Loop Diagram for the Childhood Obesity System

The causal loop diagram (CLD) represents a holistic system and several subsystems interacting in Kane County, Illinois. In order to digest the depth and complexity of the diagram, it is helpful to examine the CLD in terms of the subsystems of influence. Because of this project's focus on healthy eating, active living, and childhood obesity, this system draws attention to a number of corresponding subsystems, including: healthy eating policies and environments (red), active living policies and environments (blue), health and health behaviors (orange), partnership and community capacity (purple), and social determinants (green).

Figure 2: Subsystems in the *Making Kane County Fit for Kids* Causal Loop Dia



From the group model building exercises, several variables and causal relationships illustrated in Figure 2 were identified within and across subsystems. This section describes the subsystems in the CLD.

<u>Healthy Eating Policies and Environments (Red)</u>

The healthy eating policy and environmental subsystem includes food production, food distribution and procurement, and food retail. During the behavior over time graphs exercise, the participants generated 18 graphs related to policy or environmental strategies (e.g., <variable>) or contexts (e.g., <variable>) that affected or were affected by the work of *Making Kane County Fit for Kids*. The variables represent participants' conversations from the behavior over time graph and causal loop diagram exercises.

<u>Active Living Policies and Environments (Blue)</u>

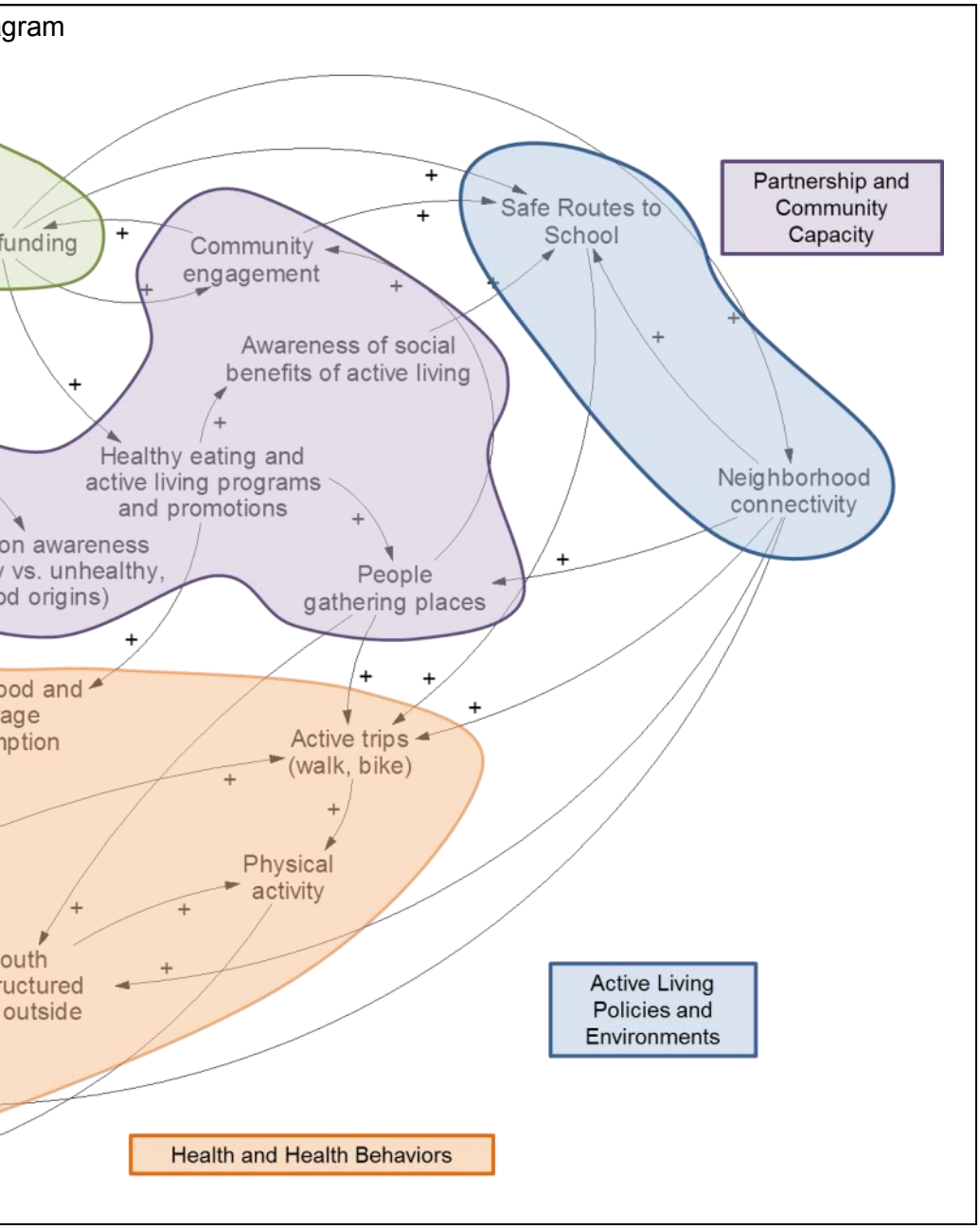
The active living policy and environmental subsystem includes design, planning, construction, and enforcement or maintenance related to access to opportunities for active transportation and recreation. For this topic, the group model building participants developed 15 graphs related to policy or environmental strategies (e.g., safe routes to school) or contexts (e.g., neighborhood connectivity) that affected or were affected by the partnership's work.

<u>Health and Health Behaviors (Orange)</u>

The subsystem for health and health behaviors includes health outcomes (e.g., obesity), health behaviors (e.g., healthy eating, physical activity), and behavioral proxies or context-specific behaviors (e.g., purchasing healthy food, parents cooking healthy food, youth unstructured play outside, active trips).

Partnership and Community Capacity

The partnership and community capacity subsystem refers to the ways communities organized and rallied for changes to the healthy eating and active living subsystems. For instance, *Making Kane County Fit for Kids* increased business engagement through a funders' consortium. This subsystem also includes community factors outside the partnership that may influence or be influenced by their efforts, such as nutrition awareness.



Social Determinants

Finally, the social determinants subsystem denotes societal conditions (e.g., local economy) and psychosocial influences (e.g., time for family) in the community that impact health beyond the healthy eating and active living subsystems. In order to achieve health equity, populations and subgroups within the community must have equitable access to these resources and services.

Each one of these subsystems has many more variables, causal relationships (arrows), and feedback loops that can be explored in greater depth by the *Making Kane County Fit for Kids* partners or by other representatives in Kane County, Illinois. Using this CLD as a starting place, community conversations about different theories of change within subsystems may continue to take place.

The next sections begin to examine the feedback loops central to the work of *Making Kane County Fit for Kids*. In these sections, causal relationships and notations (i.e., arrows, "+" signs, "-" signs) from Figure 2 will be described to increase understanding about how systems thinking and modeling tools can work in communities to increase understanding of complex problems that are continuously changing over time, such as childhood obesity. At the end of this CLD storybook, references to other resources will be provided for those interested in more advanced systems science methods and analytic approaches.

Farmers' Markets Feedback Loop

To simplify the discussion about feedback loops, several loops drawn from the *Making Kane County Fit for Kids* CLD (see Figures 1 and 2) are shown in Figure 3. While the CLD provides a theory of change for the childhood obesity prevention movement in Kane County, Illinois, each feedback loop tells a story about a more specific change process.

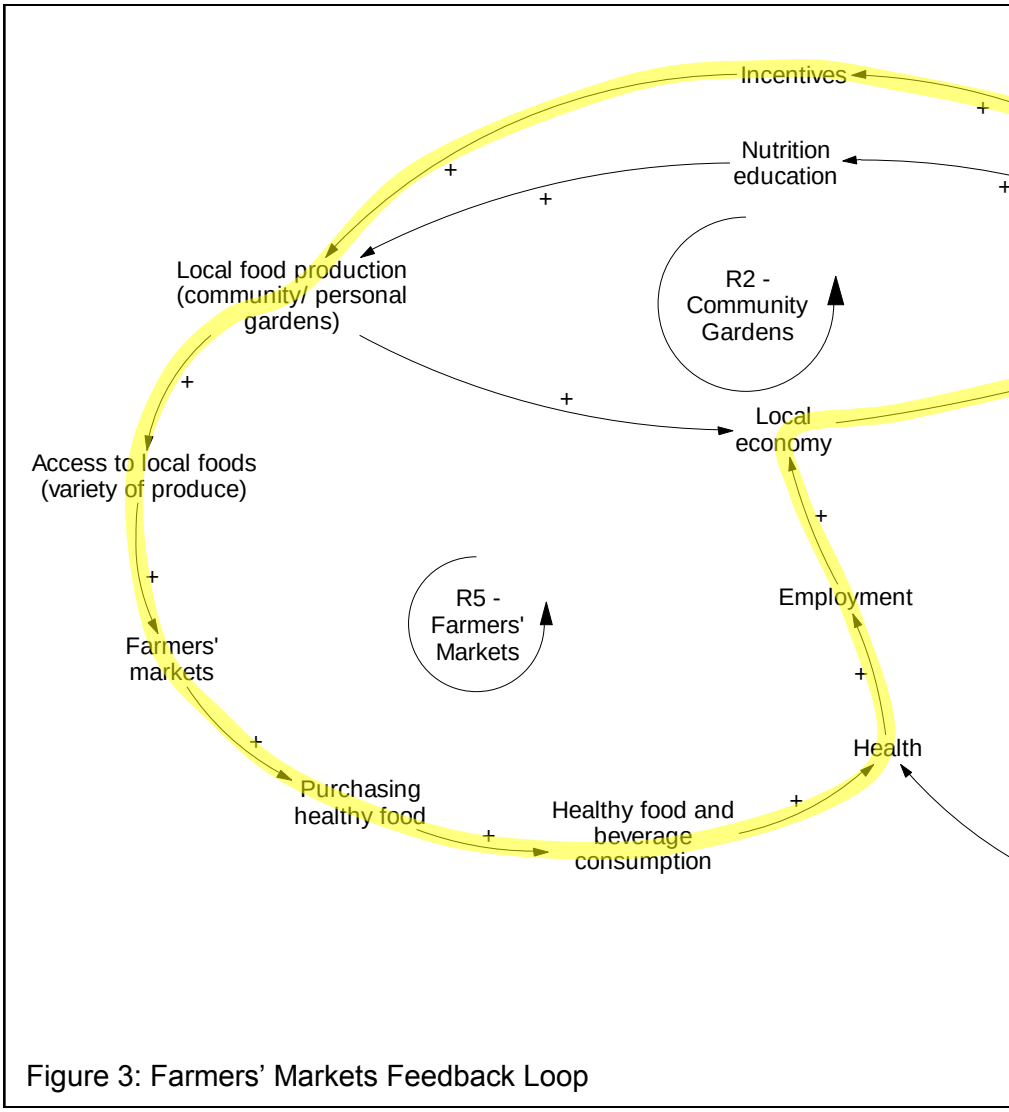


Figure 3: Farmers' Markets Feedback Loop

Causal Story for Feedback Loop

Story A: In this case , the story is about farmers' markets (yellow highlighted loop in Figure 3). Kane County, Illinois partners' worked with three farmers' markets on government nutrition assistance, three markets on expanded hours for winter, and one summer market on adjusted hours to accommodate working families. Participants described how local food production and access to a variety of locally grown produce increases the viability of farmers' markets. In turn, the markets increase healthy food purchases, consumption of healthy foods and beverages, and overall health. With more healthy citizens, more people can be gainfully employed, boosting the local economy. With more financial resources, Kane County can fund healthy eating initiatives, including incentives for local food production.

Story B: While the preceding story reflected a positive scenario for Kane County, Illinois, the same feedback loop also tells the opposite story. Insufficient local food production limits access to a variety of fresh, local produce, leaving no products for sale at farmers' markets, fewer purchases of healthy foods, and less consumption of healthy foods and beverages. As a result, local citizens may have less healthy days to be productive at work, resulting in a diminished local economy and constrained resources to fund healthy eating initiatives and incentives for local food production.

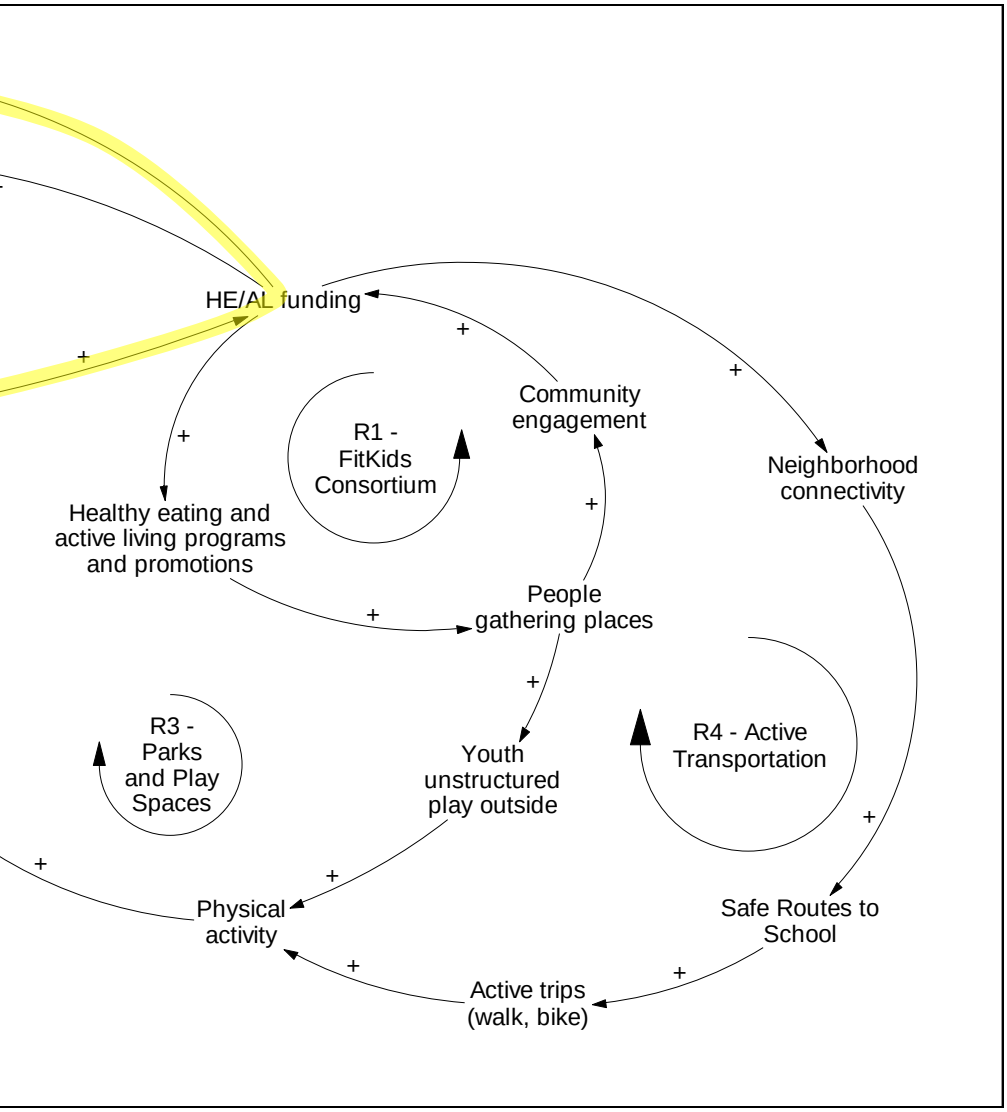
Reinforcing Loop and Notation

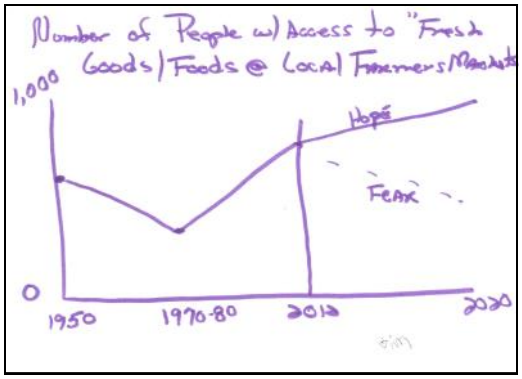
These stories represent a reinforcing loop, and the notation in the feedback loop identifies it as a reinforcing loop (see "R5 — Farmers' Markets" and yellow highlighted loop in Figure 3). The words represent variables of quantities that increase and decrease as illustrated in the stories above. These variables change over time and are influenced by other variables as indicated by the arrows. Each arrow represents a causal relationship, and the plus and minus signs on the arrows indicate whether or not the influence of one variable on another variable (1) increases/adds to (plus or "+" sign), or (2) decreases/removes from the other variable

"From my perspective as a food producer, I see that there is a real connection people are making with where food comes from and that connection is a real sense of community for people. And they're creating a community around those local food sources. I'm talking about places like our farm or farmers' markets as making a connection." (Participant)

(minus or "-" sign). These signs are referred to as polarities.

In a reinforcing loop, the effect of an increase or decrease in a variable continues through the cycle and returns an increase or decrease to the same variable, respectively.





Looking specifically at the "+" or "-" notation, a feedback loop that has zero or an even number of "-" signs, or polarities, is considered a reinforcing loop. Balancing loops, with an odd number of "-" signs in the loop, are another type of feedback loop.

In isolation, this reinforcing loop represents a virtuous cycle in Story A as these assets positively support one another, or a vicious cycle in Story B as these challenges perpetuate a downward spiral. Yet, the influence of local food production and distribution at farmers' markets likely levels off at some point when the market is saturated. To understand other influences on these variables, it is important to remember that this reinforcing loop is only one part of the larger CLD (see Figures 1 and 2), and the other loops and causal relationships can have an impact on the variables in this loop.

<u>System Insights for *Making Kane County Fit for Kids*</u>

Participants identified that the number of people with access to fresh goods and foods at local farmers' markets declined from 1950 to the 1970s and '80s, and rose again to the present in Kane County, Illinois (see behavior over time graph).

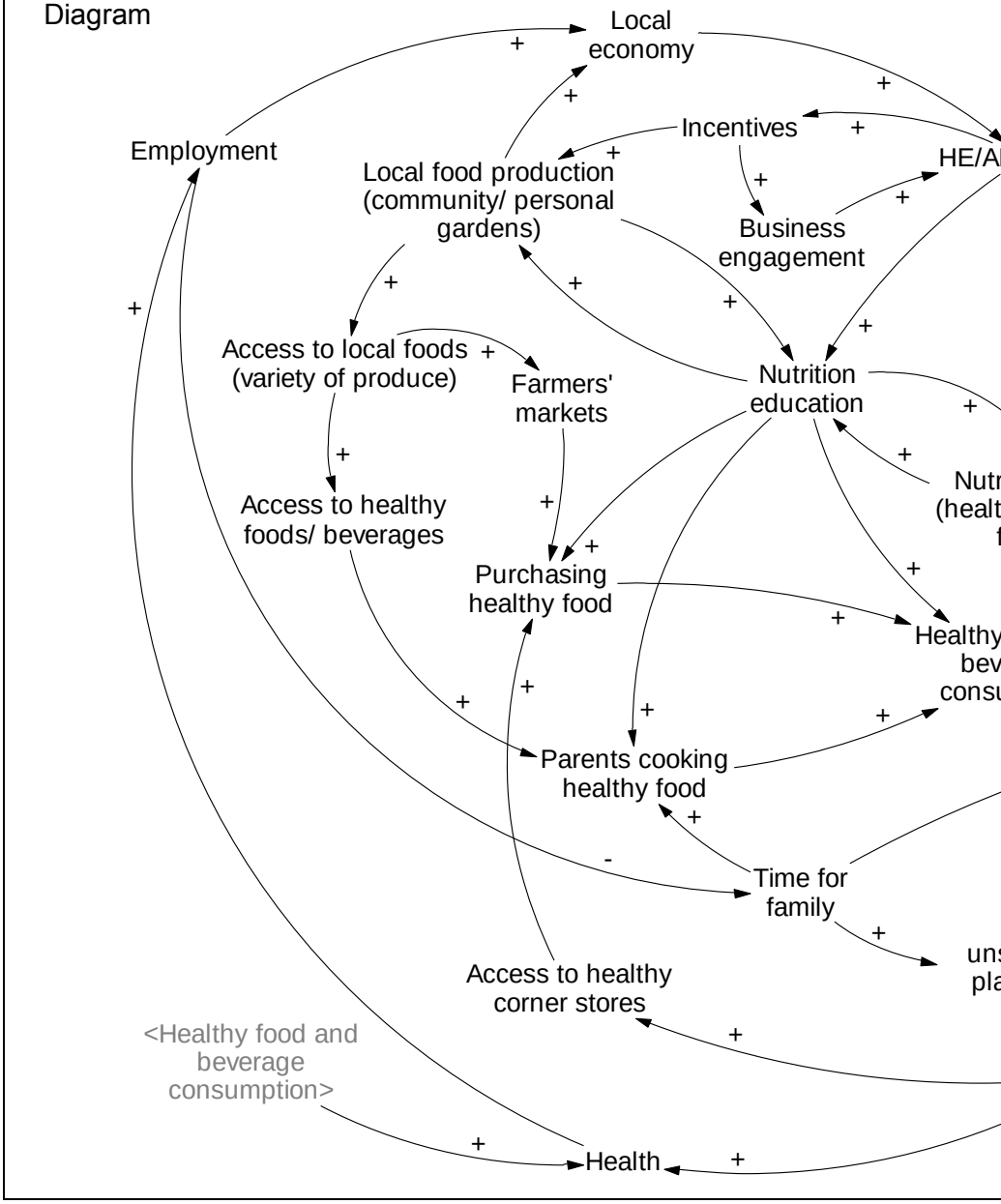
From the systems thinking exercises, several insights can inform the FitKids Consortium farmers' markets strategy. For instance, working with local employers to increase support for local food production and distribution through farmers' markets in the interests of improving presenteeism of their employees at work. Similarly, as participants identified the positive influence of farmers' markets on a sense of community (see quote on previous page), the markets may work to increase social opportunities or events in the markets to improve sustainability of the consumer base at the markets.

In addition to these insights, systems thinking can also help to pose key questions for assessment and evaluation, including methods and measures to assess relationships between purchases of healthy foods at farmers' markets and presenteeism at work, participation at markets and a sense of community, and variety of fresh produce available and size of the consumer base at the markets, among others.

Opportunities for Systems Thinking in Kane County, Illinois

This storybook provided an introduction to some basic concepts and methods for systems thinking at the community level, including: causal loop diagrams, variables, causal relationships and polarities, reinforcing feedback loops, and balancing feedback loops, among others. For the *Making Kane County Fit for Kids* partners, this storybook also summarized the healthy eating, active living, partnership and community capacity, social determinants, and health and health behaviors subsystems in the Kane County causal loop diagram as well as an example feedback loop corresponding to the partnership's primary strategies.

Figure 4: *Making Kane County Fit for Kids* Causal Loop Diagram



This causal loop diagram reflects a series of conversations among partners and residents from 2011 to 2013. Some discussions probed more deeply into different variables through the behavior over time graphs exercise, or causal relationships through the causal loop diagram exercise.

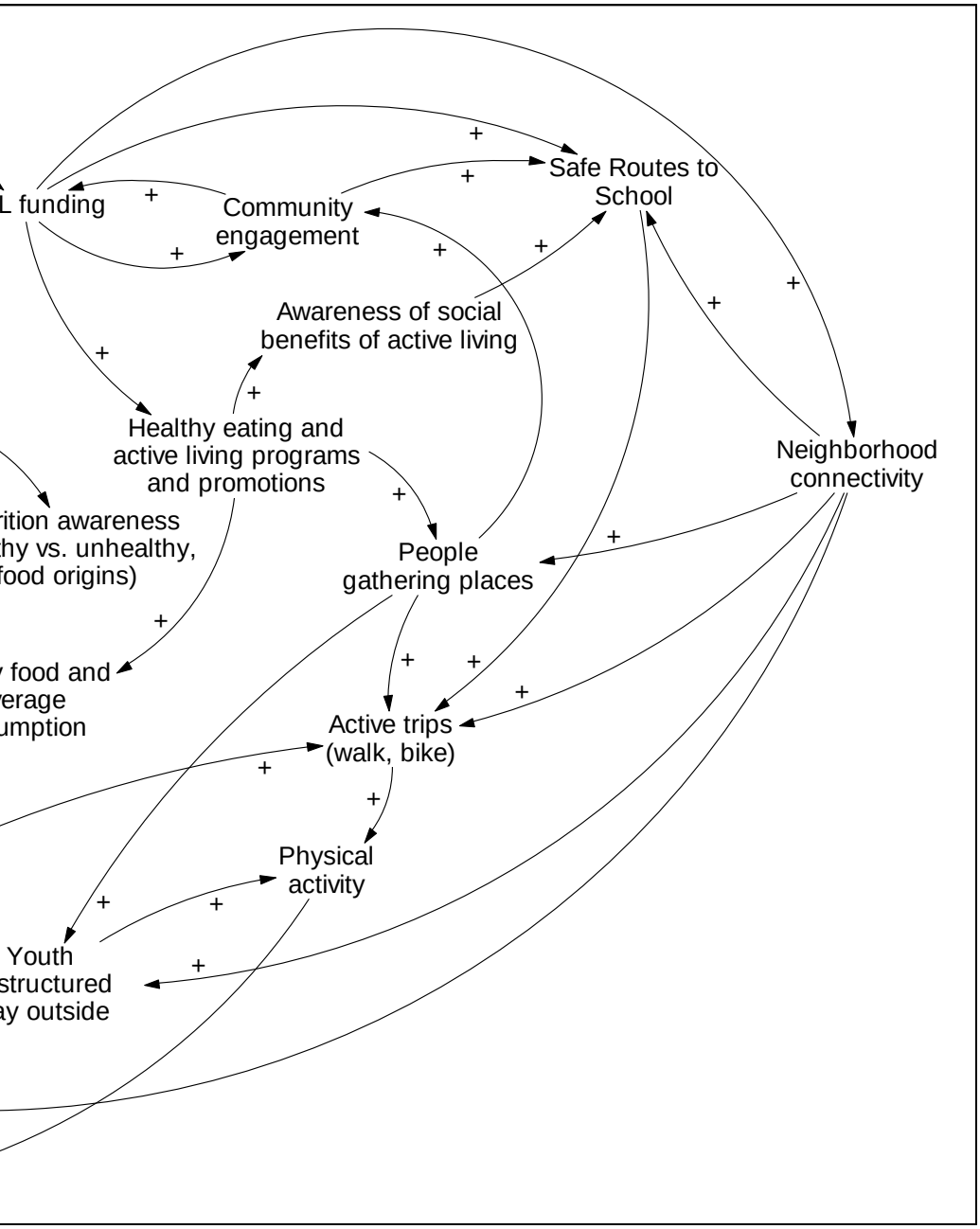
This represented a first attempt to collectively examine the range of things that affect or are affected by policy, system, and environmental changes in Kane County, Illinois to promote healthy eating and active living as well as preventing childhood overweight and obesity.

Yet, there are several limitations to this storybook, including:

- the participants represent a sample of the *Making Kane County Fit for Kids* partners (organizations and residents) as opposed to a representative snapshot of government agencies, community organizations, businesses, and community residents;
- the behavior over time graphs and the causal loop diagram represent perceptions of the participants in these exercises (similar to a survey or an interview representing perceptions of the respondents);
- the exercises and associated dialogue took place in brief one- to two-hour sessions, compromising the group's capacity to spend too much time on any one variable, relationship, or feedback loop; and
- the responses represent a moment in time so the underlying structure of the diagram and the types of feedback represented may reflect "hot button" issues of the time.

Much work is yet to be done to ensure that this causal loop diagram is accurate and comprehensive, for example:

- having conversations to discuss existing feedback loops to ensure that the appropriate variables and relationships are represented accurately;
- reviewing the behavior over time graphs (see also Appendix E) to confirm that the trends reflect common perceptions among residents and compare these trends to actual data;



- revisiting variables removed because they were not part of feedback loops, including sense of community, aging in place, suburban sprawl, dense/mixed used developments, crime/violence, perceptions of community safety, car dependence, technology/screen time, sedentary jobs, academic curricula testing, school PE/recess, organized sports recreation, affordability of healthy foods/beverages, unhealthy vending machines in school, supportive policy makers, individualism, subsidized commodities & non-local food (preservatives), fast food restaurants, unhealthy food/beverage consumption, community planning, HE/AL policy & enforcement, productive healthcare system, places to grow food; and
- starting new conversations about other variables (behavior over time graphs exercise) or relationships (causal loop diagram exercise) to add to this diagram.

In addition, different subgroups in Kane County may use this causal loop diagram to delve in deeper into some of the subsectors (e.g., healthy eating, active living) or feedback loops, creating new, more focused causal loop diagrams with more specific variables and causal relationships.

Use of more advanced systems science methods and analytic approaches to create computer simulation models is another way to take this early work to the next level. The references section includes citations for resources on these methods and analytic approaches, and it is necessary to engage professional systems scientists in these activities.

Please refer to the Appendices for more information, including:

- Appendix A: Behavior over time graphs generated during site visit
- Appendix B: Photograph of the original version of *Making Kane County Fit for Kids* Causal Loop Diagram
- Appendix C: Original translation of the causal loop diagram into Vensim PLE
- Appendix D: Transcript translation of the causal loop diagram into Vensim PLE
- Appendix E: Behavior over time graphs not represented in the storybook

References for Systems Thinking in Communities:

Group model building handbook:
Hovmand, P., Brennan L., & Kemner, A. (2013). Healthy Kids, Healthy Communities Group Model Building Facilitation Handbook. Retrieved from http://www.transtria.com/hkhc.

Vensim PLE software for causal loop diagram creation and modification:
Ventana Systems. (2010). Vensim Personal Learning Edition (Version 5.11A) [Software]. Available from http://vensim.com/vensim-personal-learning-edition/

System dynamics modeling resources and support:
Andersen, D. F. and G. P. Richardson (1997). "Scripts for group model building." System Dynamics Review 13(2): 107-129.

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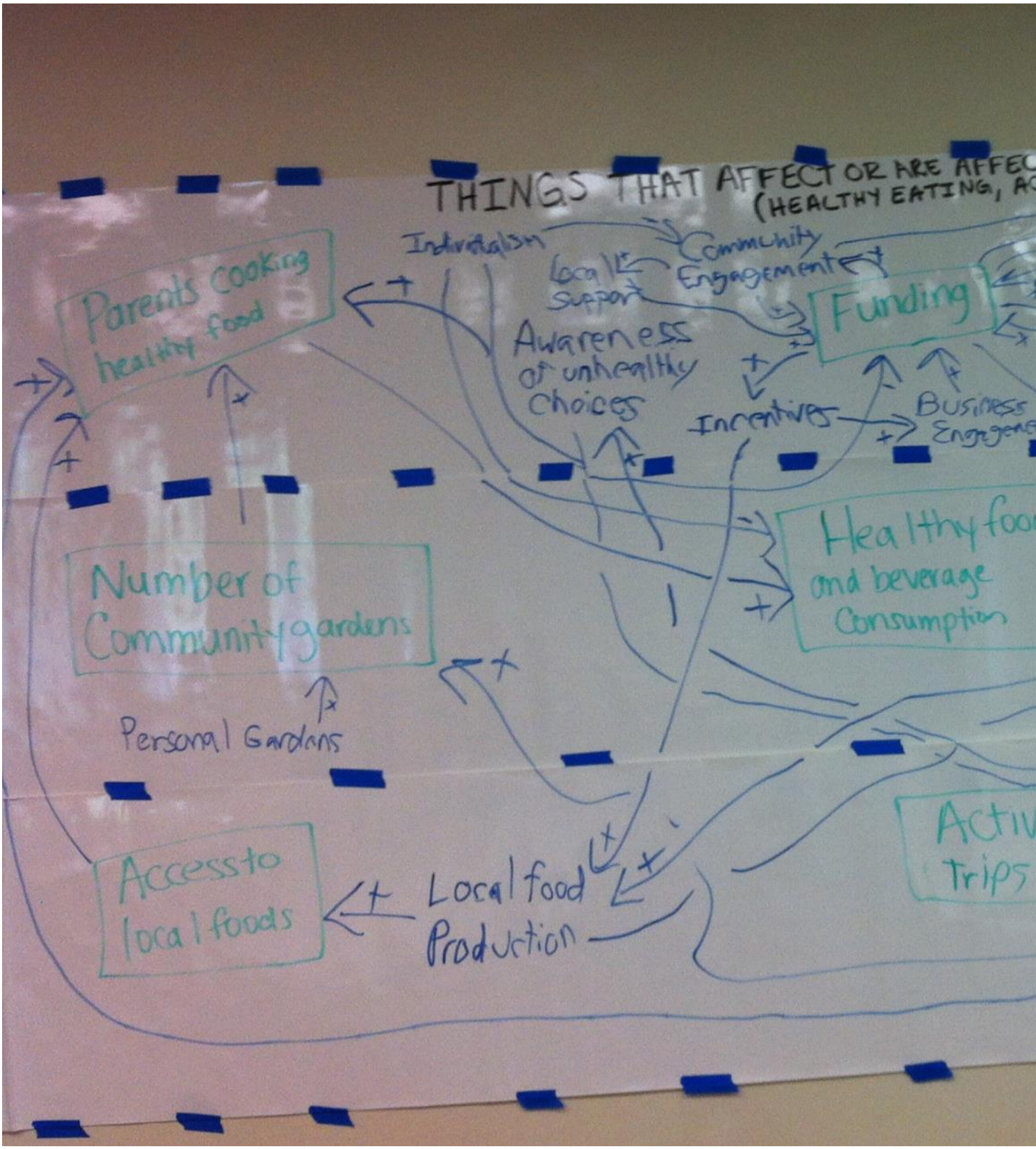
Appendix A: Behavior Over Time Graphs Generated during Site Visit

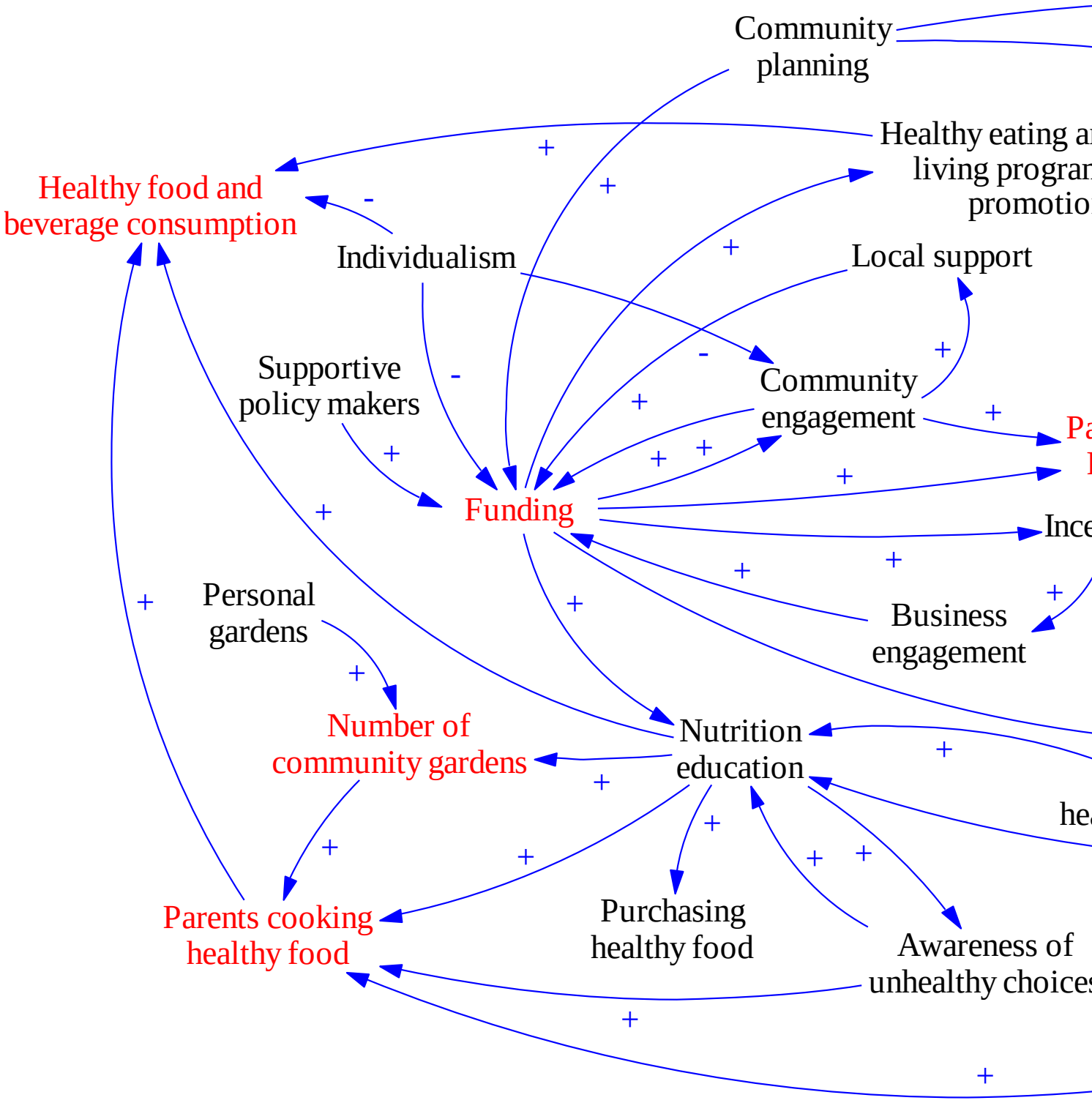
Kane County, Illinois: *Making Kane County Fit for Kids*	
Categories	**Number of Graphs**
Active Living Behavior	9
Active Living Environments	6
Funding	1
Healthy Eating Behavior	9
Healthy Eating Environments	9
Marketing and Media Coverage	0
Obesity and Long Term Outcomes	0
Partnership & Community Capacity	0
Policies	1
Programs & Promotions (Education and Awareness)	4
Social Determinants of Health	3
Total Graphs	**42**

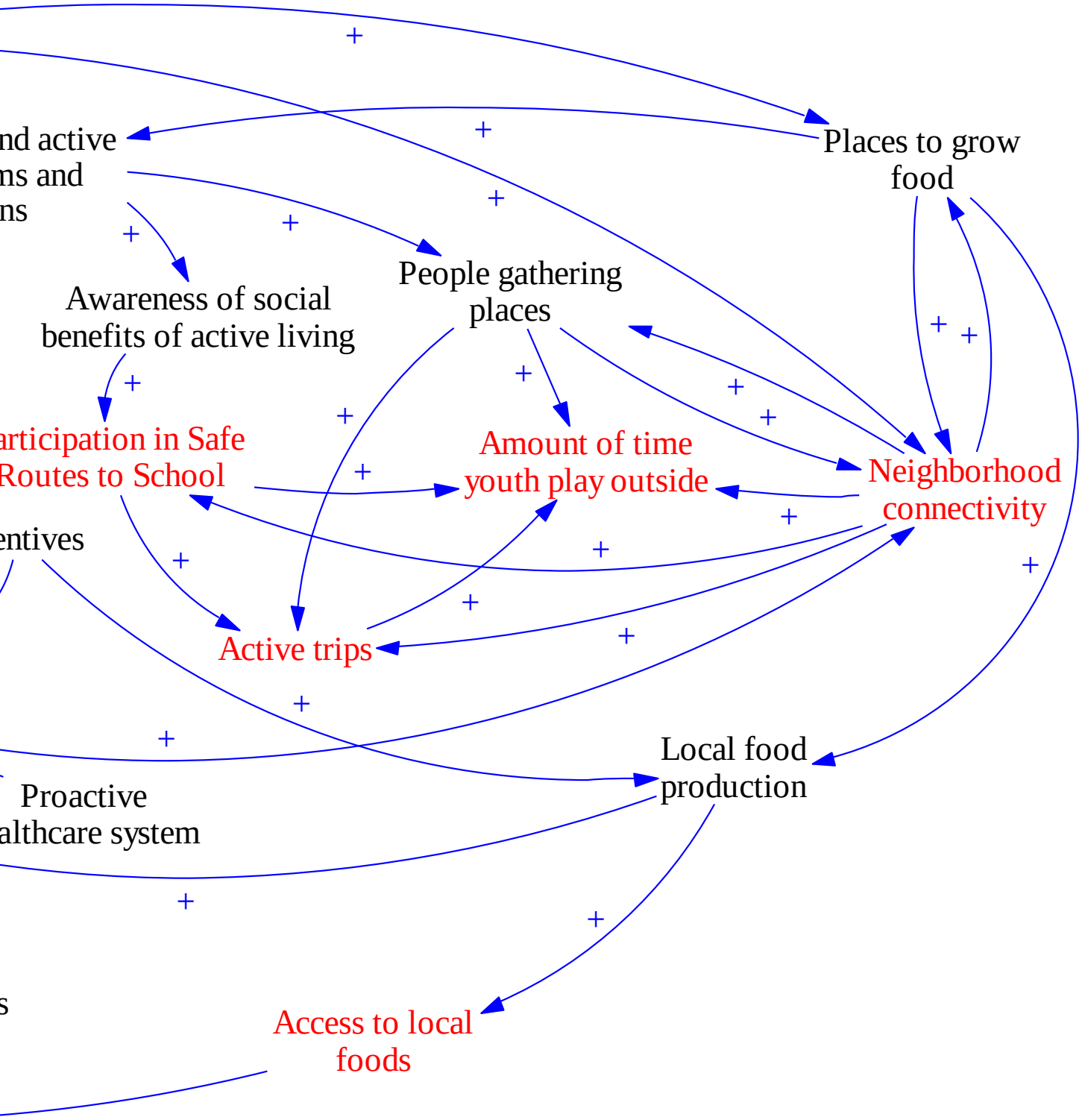
Appendix B: Photograph of the Original Version of the *Making Kane County Fit for Kids* Causal Loop Diagram



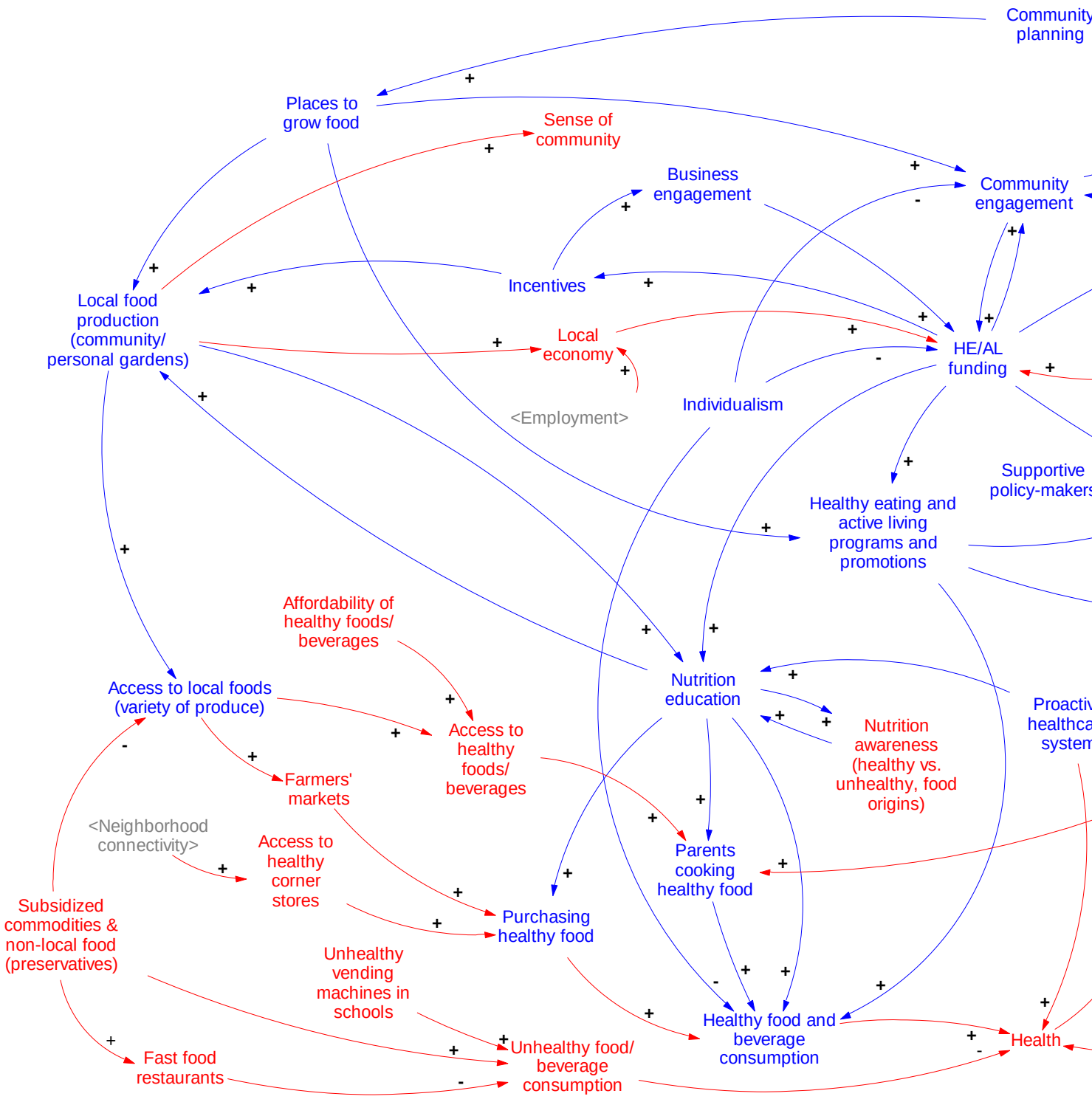

Supportive Policy making
Awareness of social benefits of Active Living
Participation in Safe Routes to Schools
HE programs + promotions
Places to Grow Food
Neighborhood Connectivity
Purchasing Healthy Foods
Nutrition Education
Proactive Healthcare System
Amount of time youth play outside

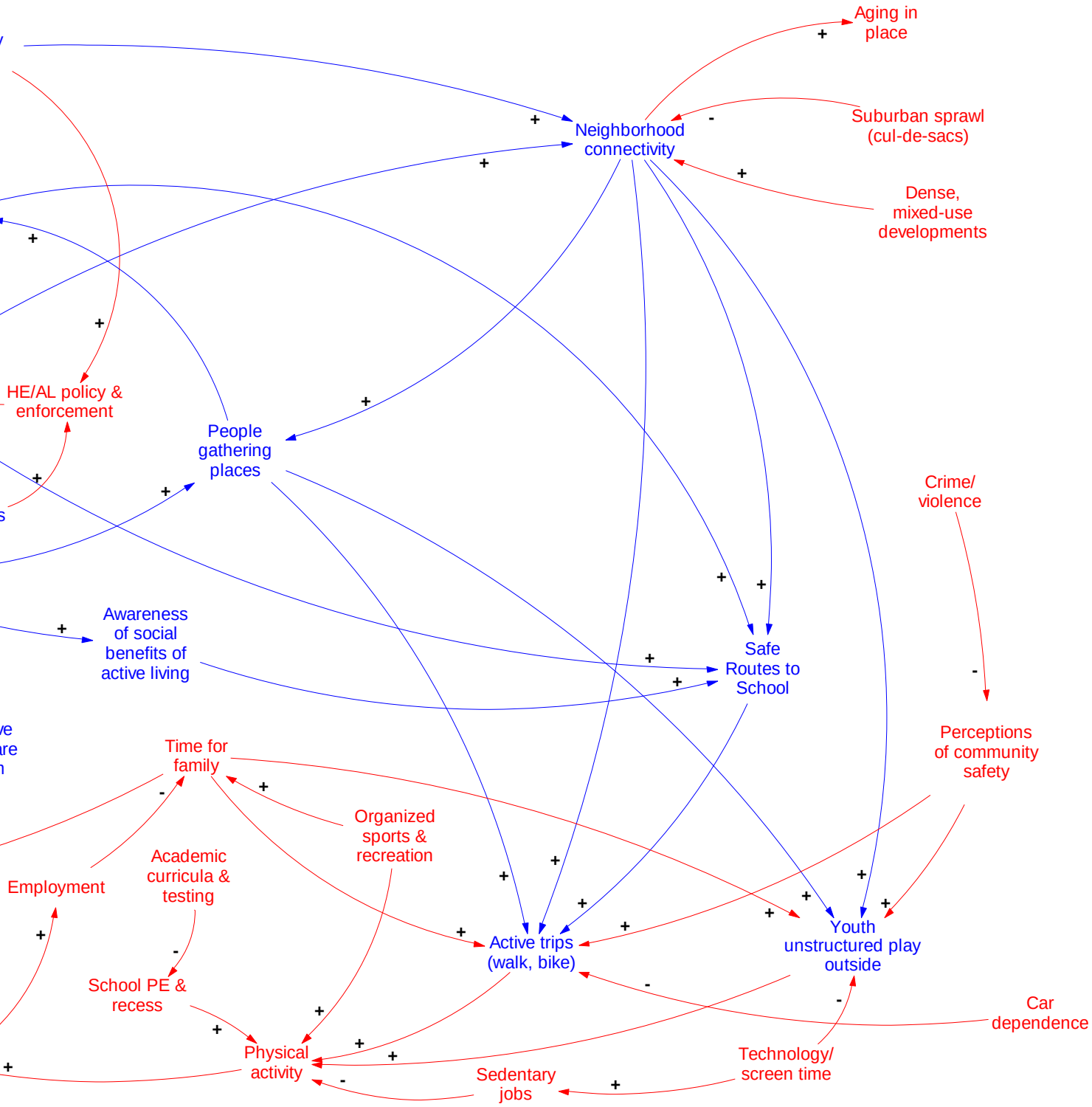
Appendix C: Original Translation of the Causal Loop Diagram into Vensim PLE



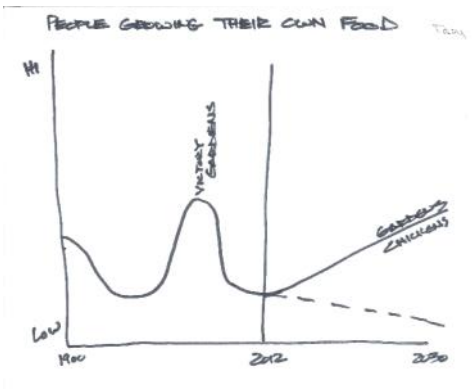

nd active
ms and
ns
Places to grow
food
Awareness of social
benefits of active living
People gathering
places
articipation in Safe
Routes to School
Amount of time
youth play outside
Neighborhood
connectivity
entives
Active trips
Local food
production
Proactive
althcare system
s
Access to local
foods

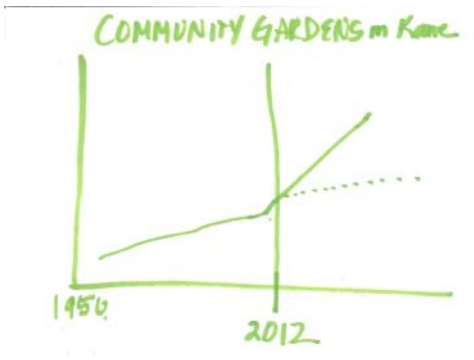
Appendix D: Transcript Translation of the Causal Loop Diagram into Vensim PLE

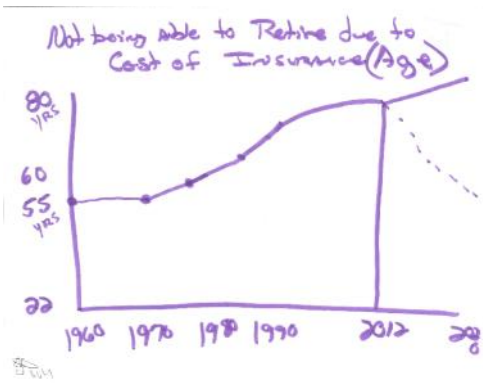


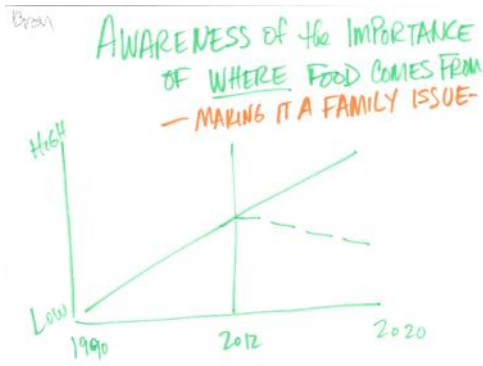

Aging in place
Neighborhood connectivity
Suburban sprawl (cul-de-sacs)
Dense, mixed-use developments
HE/AL policy & enforcement
People gathering places
Crime/ violence
Awareness of social benefits of active living
Safe Routes to School
Perceptions of community safety
Time for family
Organized sports & recreation
Academic curricula & testing
Employment
Active trips (walk, bike)
Youth unstructured play outside
School PE & recess
Car dependence
Physical activity
Technology/ screen time
Sedentary jobs

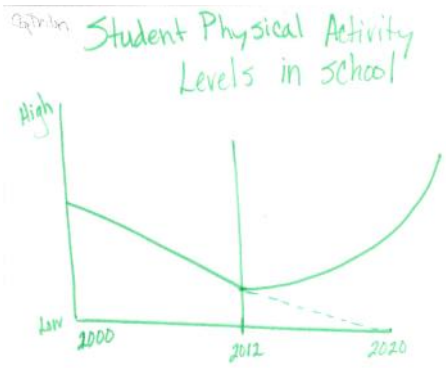
Appendix E: Behavior Over Time Graphs not Represented in the Storybook

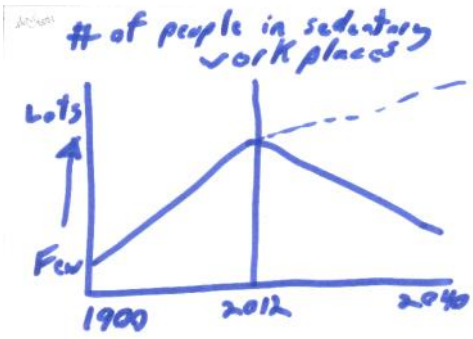


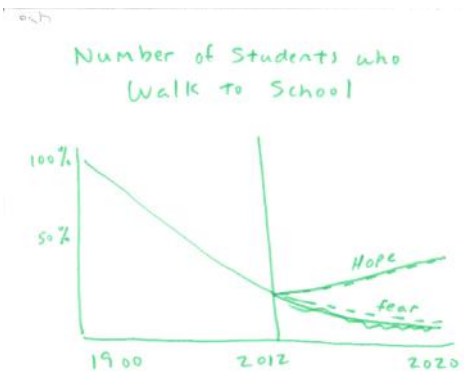


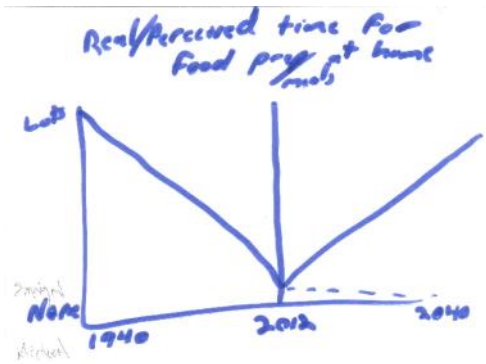


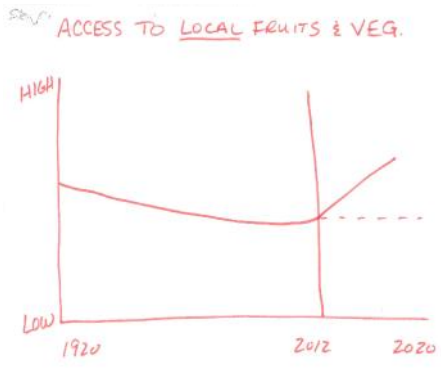


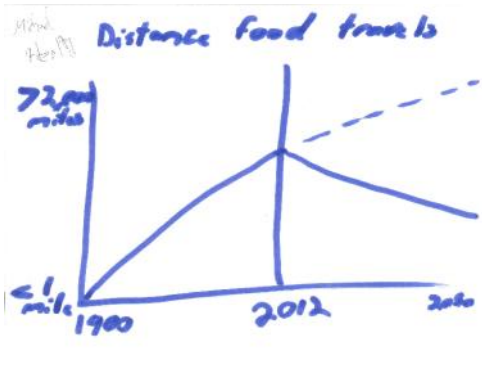


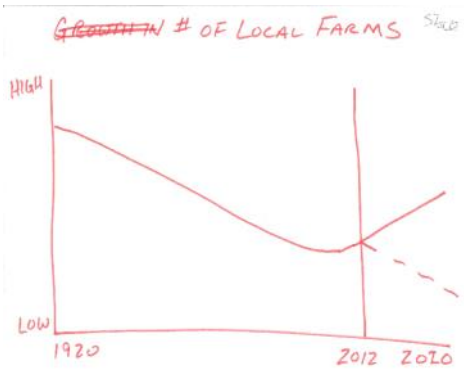


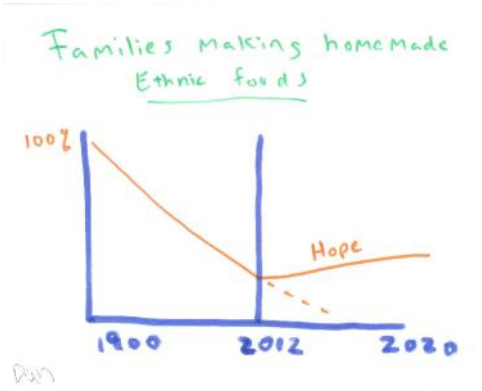


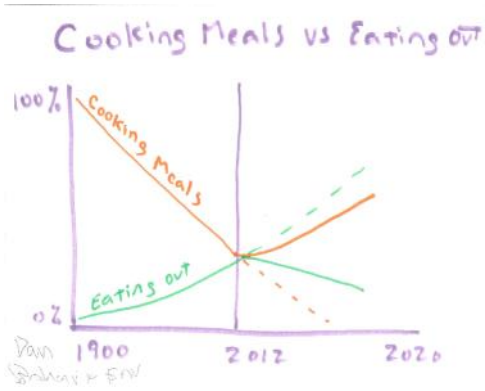


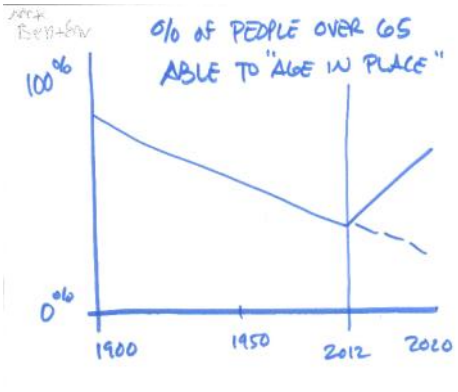


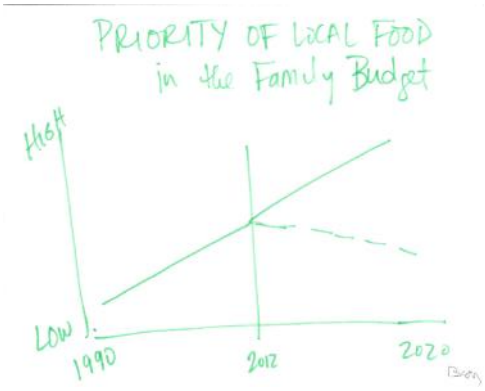


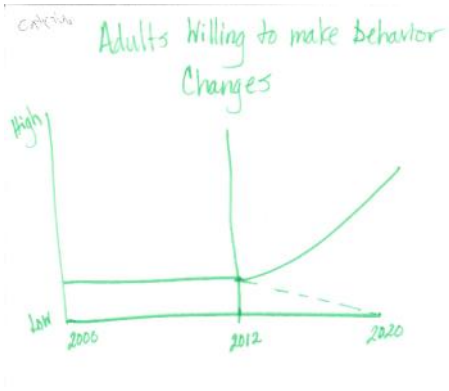


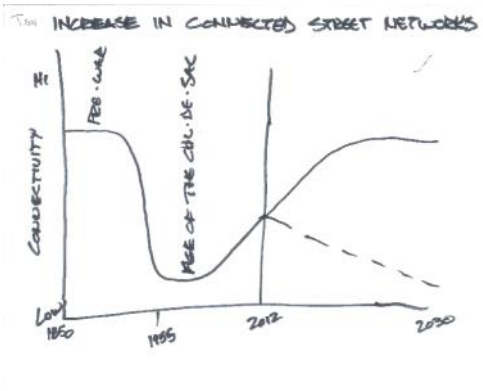

Families making homemade Ethnic foods
100%
Hope
1900
2012
2020

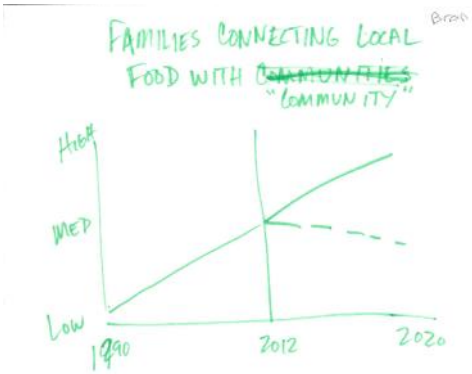

Cooking Meals vs Eating out
100%
Cooking Meals
Eating out
0%
1900
2012
2020

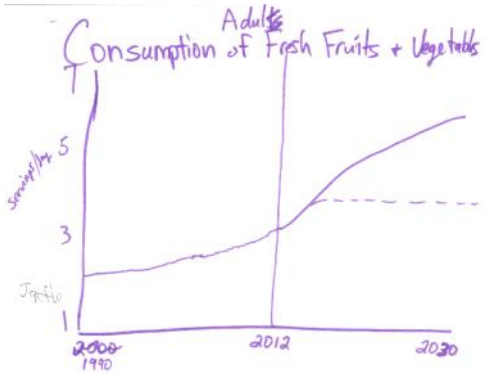

% of PEOPLE OVER 65 ABLE TO "AGE IN PLACE"
100%
0%
1900
1950
2012
2020

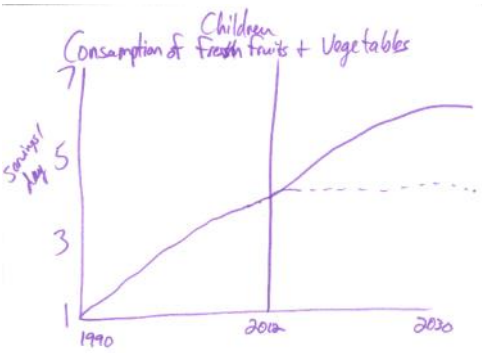

PRIORITY OF LOCAL FOOD in the Family Budget
High
LOW
1990
2012
2020


Adults Willing to make Behavior Changes
High
Low
2000
2012
2020

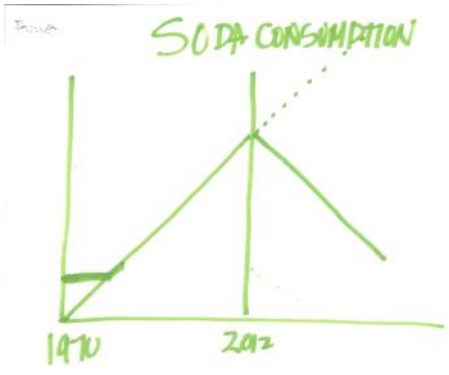

INCREASE IN CONNECTED STREET NETWORKS
CONNECTIVITY
High
Low
1850
1895
2012
2030

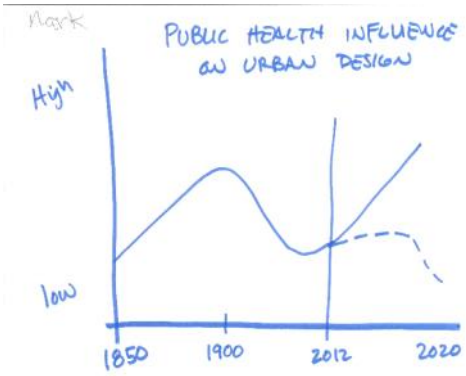

FAMILIES CONNECTING LOCAL FOOD WITH "COMMUNITY"
High
MED
Low
1990
2012
2020

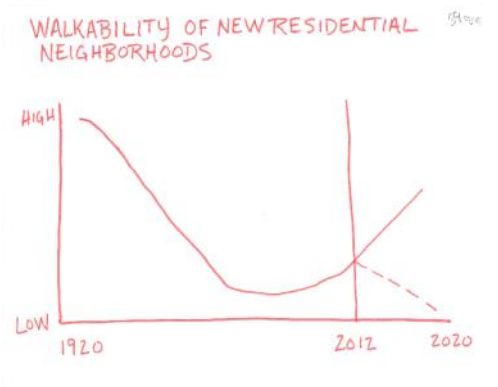

Adults
Consumption of Fresh Fruits + Vegetables
Servings/day
7
5
3
1
2000
1990
2012
2030

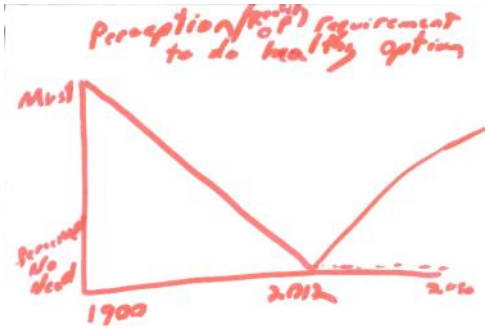

Children
Consumption of Fresh Fruits + Vegetables
Servings/day
7
5
3
1
1990
2012
2030

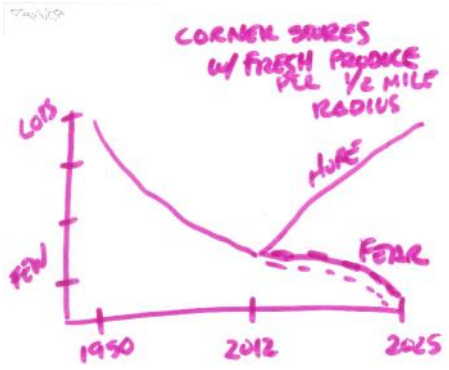

Wike | Bike destination options
high
low
1980
2012
2020

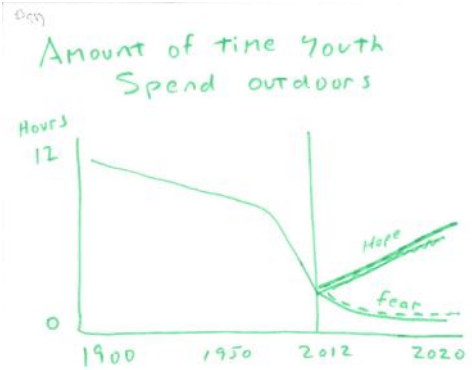

SODA CONSUMPTION
1970
2012

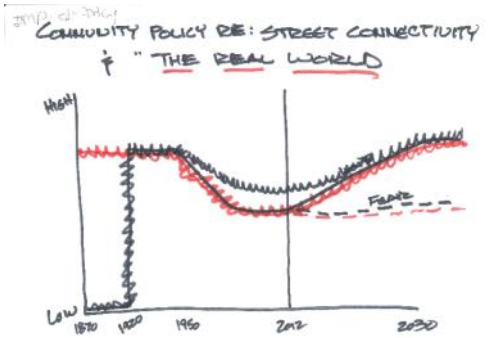

PUBLIC HEALTH INFLUENCE ON URBAN DESIGN
High
low
1850
1900
2012
2020

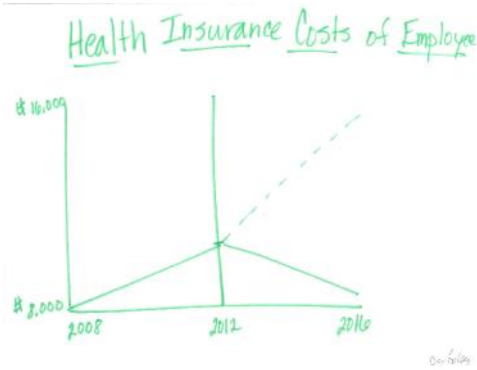

WALKABILITY OF NEW RESIDENTIAL NEIGHBORHOODS
HIGH
LOW
1920
2012
2020

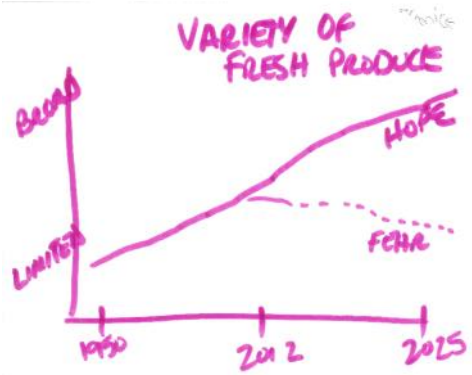

Perception of requirement to do healthy options
Most
1900
2012
2020

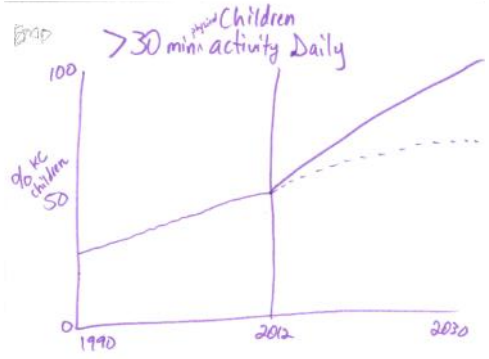

CORNER STORES w/ FRESH PRODUCE PER ½ MILE RADIUS
LOTS
FEW
MORE
FEAR
1950
2012
2025

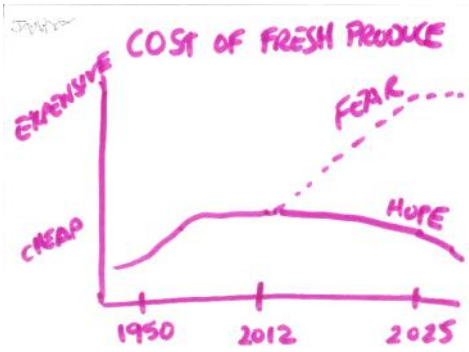

Amount of time Youth Spend outdoors
Hours
12
0
Hope
fear
1900
1950
2012
2020

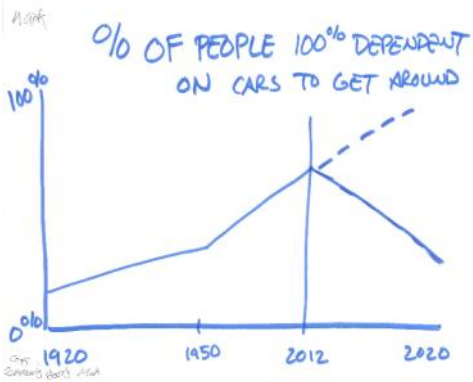

COMMUNITY POLICY RE: STREET CONNECTIVITY & "THE REAL WORLD"
High
Low
Fears
1870
1920
1950
2012
2030


Health Insurance Costs of Employee
$ 16,000
$ 8,000
2008
2012
2016


VARIETY OF FRESH PRODUCE
BROAD
LIMITED
HOPE
FEAR
1950
2012
2025


>30 min activity Daily
Children
100
% YC children
50
0
1990
2012
2030


COST OF FRESH PRODUCE
EXPENSIVE
CHEAP
FEAR
HOPE
1950
2012
2025


% OF PEOPLE 100% DEPENDENT ON CARS TO GET AROUND
100 %
0 %
1920
1950
2012
2020