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## 2013 CCE Summer Internships

CATEGORY ARCHIVES: MEASURING AND IMPROVING RURAL FOOD AND PHYSICAL ACTIVITY ENVIRONMENTS TO IMPROVE HEALTH

# This is just the beginning (Weeks 9, 10 and Beyond)

Posted on **October 1, 2013** by **Meghan V Witherow**

The final weeks of the internship have concluded, and the semester has begun!

Our foray into towns with a RUCA* of 10+ proved highly fruitful. They were worlds different from the towns with a RUCA of 7, being smaller, having less businesses and only about 1 or 2 roads. There were rarely sidewalks, and often a couple of businesses, like an antique store or ice cream stand, interspersed with residential buildings. Objects like graffiti were more common, but we encountered situations we had not yet encountered. There were a multitude of speeding cars, and an inability to get anywhere by foot, with few shoulders and almost no sidewalks.

However, this allowed us to put ourselves in the shoes of someone who lives in this area. How would we go about shopping for groceries? What sorts of physical activities would be choose when there are no fitness centers, playgrounds or sidewalks? We also encountered items like farm stands, and wineries that could have served as food outlets, so we had to factor those things into the tool revisions.

I am happy to say that after several drafts of the tool, percent agreeability between researchers improved, the tool became more explicit and user friendly, and we gained a great deal of experience in working with, developing and testing these tools.

Now, during the semester, we continue to work on the food and physical activity tools we developed, created a poster (which can be viewed here) which summarized our findings, and presented to an audience.

* RUCA stands for Rural-Urban Commuting Area Codes. It is a numerical scale characterizing the urban or rural status of an area, with a lower number meaning more urban, and a higher number meaning more rural.

Posted in **Measuring and Improving Rural Food and Physical Activity Environments to Improve Health**, **_Uncategorized**

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## Extreme Tool Makeover (Weeks 7 and 8)

Posted on **July 29, 2013** by **Meghan V Witherow**

**I never thought I'd consider tractors as a mode of transportation.**

However, the number of tractors I've encountered out in the field exceeds the number of cars- or people for that matter!

As time passes, the work becomes progressively more dense, and the visits progressively more rural. The week before last was spent doing pilot audits in Ithaca and Trumansburg, and after using the tools out in the field, we realized there were discrepancies between what we wanted to measure in theory and what the tool actually measured in practice. This necessitated a major overhaul of the tool.

This then segued into the following week, where we further tested the tools in areas with a RUCA* of at least 7 (to put things in perspective, Ithaca has a RUCA of 1)! This would provide a more accurate representation of how the tool functions in a rural environment. We chose two regions, each with a RUCA of exactly 7.0. This changed the perspective of our tools slightly, and allowed us to consider things that are more unique to the rural setting (such as tractor traffic)! We deleted and added items accordingly.

In the following weeks, we will enter the heavyweight ring (RUCA of 10+), with official data collection using the finalized tools! This is the culmination of all our hard work. Best of luck to everyone.

* RUCA stands for Rural-Urban Commuting Area Codes. It is a numerical scale characterizing the urban or rural status of an area, with a lower number meaning more urban, and a higher number meaning more rural.

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## A Sense of Direction (Weeks 4, 5, and 6)

Posted on **July 12, 2013** by **Meghan V Witherow**

**These past 3 weeks have seen rapid progress.**

The tool began with a table, and some items that were essentially a shot in the dark. But before I knew it, we had an

entire archive of drafts, each one longer, more intricate (and oftentimes more colorful) than the last!

At first, the tool was not the most cohesive. The aim was to simply begin a draft, however it may turn out, so there is at least something on the page to edit. This was a good approach, because it isn't until we see the items on the page that we can truly ruminate on them, and consider how they might fare in a rural setting. The review of existing tools and constructs gave us a better idea of what the tool needs to measure, which data are most relevant, and how to avoid common pitfalls.

Two days ago the whole team met to review the drafts of the tool, and that was the perfect spark to ignite our progress. We were able to exchange ideas with the tools being in a complete draft form, and I now have a much more clear understanding of what we are trying to create, in a way that was very difficult to articulate before.

So for nearly 3 hours, we made edits, took notes, and discussed the pros and cons of the existing tools, leaving with a clearly shared vision and new sense of direction. Our plan is to go out into the field within the next couple of weeks to test the tools!

Interesting vocabulary of the day!

**Ground-truthing** includes actual physical observation and visitation of a site, rather than relying solely on Geographic Information Systems (a widely known example being Google Maps) to determine characteristics of a site. This helps affirm the accuracy of data the GIS captures. Here is an interesting study using this method. It was lead by J.R. Sharkey, whose name has appeared frequently in my searches on food environment studies.

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## Swimming (Weeks 1, 2, and 3)

Posted on **June 24, 2013** by **Meghan V Witherow**

**I'm swimming the waters of a massive sea of data, and I haven't been eaten by a predator yet.**

It has been an interesting 3 weeks for having sat at a computer 7 hours a day, 5 days of the week. I'm beginning to appreciate the level of difficulty and attention to detail required in developing measurement tools. Taking after other researchers who begin with a comprehensive review of existing tools, I'm mucking my way through the dark underbelly of the internet to exhaust my resources of tools, after which I review them and complete an inventory table for each one that describes the tool.

An advantage conferred to me by wading through this data is the map of studies, authors and information that has formed in my head. I'm beginning to recognize people, jargon and methods used in built environment studies. This will be useful as we are developing the rural food environment tool, because we will have better awareness of the

existing tools and how we can adapt them for this project.

On a more personal note, my skills in professional correspondence, search engine use and general internet savviness have increased, and I'm being tested in my patience to sit focused at the computer all day. I am amazed at my colleague's ability to sit quietly for hours on end!

Coming up next: stage one of tool development, what on earth "ground-truthing" is, and adventures in office work.

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# And so it begins…!

Posted on **June 12, 2013** by **Meghan V Witherow**

**Summer 2013:**
**Measuring and Improving Rural Food and Physical Activity Environments to Improve Health**

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Introduction
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Hello! My name is Meghan Witherow, and I am a Dietetics student working towards a B.S. in Nutritional Sciences at Cornell University. My passions lie in international nutrition, multicultural issues, food psychology and more generally with public health and disease prevention.

My interest in built environments was sparked after meeting Dr. Brian Wansink, and becoming a member of the Food and Brand Lab. We studied how minute changes in the environment, such as adjustments in lighting and positioning of a food, can significantly increase or decrease sales of that food. The idea that the environment has such sway over our behaviors as a population captured my imagination.

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The Project
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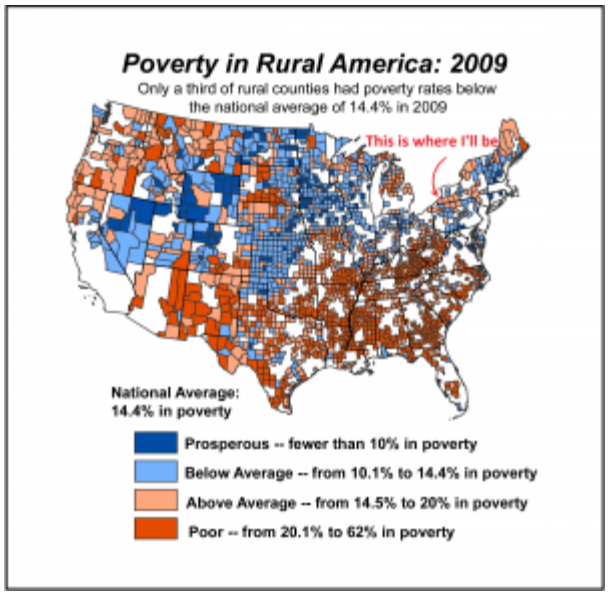
This leads me to my work with Dr. Rebecca Seguin and her research coordinator, Leah M. Connor. There is a plethora of instruments to measure urban food and physical activity built environments. Yet, there is a striking lack of instruments measuring the built

environments in a rural setting. Clearly, there are important differences between an urban and rural environment that must be taken into account when measuring the environment. This is why Dr. Seguin has chosen to develop a comprehensive rural tool that can be used by both researchers and community members.

— [image credit: http://activerain.com/blogsview/1383269/poverty-in-rural-america-the-other-side-of-green-acres]




— The field: Cattaraugus, Allegany, Steuben, and Chemung Counties [image credit: http://www.dailyyonder.com/poverty-highest-rural-america-rising-recession/2010/12/21/3098]

Our job is twofold. 1) We will use gathered information to develop a tool to measure the built environments in a rural setting by adapting aspects of what has been found through this systematic search as well as from Dr. Seguin's prior focus group and field research in rural settings. 2) Our team will venture out into the field (which for us will be Cattaraugus, Allegany, Steuben, Chemung, and other counties in New York) in order to test these instruments.

Now, this warrants some explanation. Firstly, "**tool**" or "instrument" is essentially a grand way of saying "survey." The tools we are collecting consist of questions, checklists, and diagrams to document the **built environment** (literally the physical setting of a restaurant or convenience store). For example, in a grocery store, a tool may list what foods are available, what the price of the cheapest food is, how many cashiers there are, if there are any stairs, sidewalks outside, or obstructions. This seems very simple at face value, but it gets a bit difficult. The tools must be standardized, so there is no room for inconsistency, and the items must be absolutely explicit. Not just "milk" but "0.5 gallon 2% milk.

What adds to the difficulty is the fact that many rural environments are **food deserts**, meaning that they 10 or more miles away from the nearest food vendor. Some studies I've reviewed have said that some people will drive as far as 80 miles to the grocery store! What little is available is often obtained through a non-traditional food vendor, such as a convenience store or gas station. These establishments are very different from the suburban grocery store many of us know, and for which the current tools are designed.

Hopefully, through this project, we can take steps to improve the health of rural communities by accurately documenting the built environment. I'll post regularly with updates, thoughts, findings, and pictures.