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Nutrition Education and Community Advocacy at Marin Health and Human Services

Anna Allison
University of San Francisco
August 27, 2014

Introduction

When discussing the health of a community, it is easy to talk in averages — the average life expectancy, the average birth weight, average student test scores. If averages were the whole story, Marin County would deserve its sterling reputation. If each resident was the average, then Marin Health and Human Services could take Friday off, take a half day on Monday and still come out ahead. But as any statistician could tell you, the average is just one measure of central tendency. There are at least 11 different neighborhoods in Marin, and not a one of them looks like the average.

Understanding the public health problems in Marin County is about understanding disparity. How can there be a food desert in the, “healthiest county in America?” It is a question that Marin HHS has to constantly field. It would be a mistake to assume that all Marin neighborhoods look the same. The life expectancy in Ross is over 88 years. Less than 10 miles away in Hamilton Novato, the life expectancy is 75 years (Community Assessment, 2013). That is a 13 year difference in life expectancy, roughly equivalent to the difference between living in the United States and Guyana (WHO, 2014). Marin is a small county, but it holds a great deal of variation. An effective health intervention in one neighborhood will not work in another, more importantly, there may not be the same health issue from one neighborhood to the next.

Background

In order to address the diversity of issues facing Marin County, Marin HHS is divided into three different divisions: the Prevention Hub, Health Services and Community Health Services. Within those divisions are nine different subdivisions and even more distinct program

areas. Like the rest of California and the United States, Marin County faces an obesity epidemic (Community Assessment, 2013). As such, the Prevention Hub has a Nutrition Wellness Program that is charged with preventing obesity in low-income neighborhoods and improving food environments in Marin as a whole. The Nutrition Wellness Program orchestrates a variety of programs, including nutrition education classes for elementary and middle school students, and the newly created HEAL Initiative.

The Healthy Eating Active Living (HEAL) Initiative “brings together residents and community partners from throughout Marin to create a roadmap to improve community health (Marin HEAL, 2014).” While HEAL does do some direct interactions with the community, its main focus is supporting the multitude of services that are already in place, but not necessarily working together. Marin is blessed in that it has many services available for people who need them, and has a culture that is dedicated to protecting and fostering health. However, it can be difficult to connect residents with services, or to prevent an overlap of services without communication and cooperation between organizations and agencies providing service. HEAL is the bridge that connects these agencies, both governmental and non-governmental (Marin HEAL 2014).

The Communities of Excellence (CX3) Program is one of the primary programs supported by HEAL. CX3 programs are currently being implemented in two Marin neighborhoods. In one such neighborhood, Marin City, community members, agencies and government officials are working together to bring a full service grocery store to the community (Marin City Community Services District, 2014).

Nutrition education is one of the biggest priorities of the Nutrition Wellness Program. Since most neighborhoods in Marin has access to healthy food options (with some notable exceptions), the lack of education is one of the biggest barriers to good health. Education can be delivered in two different ways, direct education and indirect education. Indirect education is often in the form of an infomercial, advertising campaign, or any educational interaction that lasts less than 15 minutes. Direct education is often a class or seminar that lasts longer than 15 minutes. The Nutrition Wellness Program performs both direct and indirect nutrition education, however, the focus is mainly on direct education in the form of classes. However, the Nutrition Wellness Program does attend health fairs and tabling events which the interaction between the educator and the individual may be less than 15 minutes and therefore constitute indirect education.

The average obesity rate in Marin County is 13.5 percent (Lewis, K., & Burd-Sharps, 2014). Compared to the California average of 22.7 percent, that figure is actually quite low (Lewis, K., & Burd-Sharps, 2014). However, while there are neighborhoods in Marin where obesity is nearly nonexistent, there are also areas where obesity is more prevalent than the California average. In Ross and Belvedere the 2005 to 2009 census reported an obesity rate of zero percent (Lewis, K., & Burd-Sharps, 2014). Fairfax, Tiburon, and San Anselmo fell below five percent. In Hamilton, however, the obesity rate was 46.4 percent, 23.7 percent higher than the California average (Lewis, K., & Burd-Sharps, 2014). Other neighborhoods faced similar struggles. Despite Marin's rumored love of outdoor living and fitness, there are still neighborhoods that need services like those provided by the Nutrition Wellness Program.

Unlike indirect education, direct education classes cannot quickly reach large audiences. Indirect education, such as a mass media campaign, has the potential to reach hundreds of thousands of people. However, with a topic as complex as nutrition, the answer is not always that simple. While indirect education can pique interest, there is evidence to suggest that direct nutrition education is effective, even if it takes a little longer to saturate the target population.

In 2011 the *Jornal de Pediatria* published a literature review of over 24 randomized controlled trials conducted to test the effectiveness of nutrition education classes in schools to reduce or prevent overweight children and adolescents (Guerra, Nobre, Silveira & Taddei, 2011). Students who revied nutrition education classes showed a small reduction in excess weight, and ate more fruits and vegetables than their counterparts who did not receive nutrition education classes. The study found that certain factors could increase the effectiveness of the classes, such as parental involvement, introducing classes into the regular curriculum, and the provision of fruits and vegetables in school food service (Guerra et al, 2011). While the latter two options are beyond the scope of the current Nutrition Wellness Program, the program does strive to include parents in their children's nutrition education classes. This is most often accomplished at health fairs, but can also be done in after school and weekend classes.

While most Marin neighborhoods may find education to be their greatest barrier, rather than access to healthy choices, there are ares in Marin that do not have a density of healthy retailers or alternative options, such as farmer's markets. One area in particular, Marin City in Sausalito is particularity impacted. Marin City does not have a single full service grocery store, nor does it have a public transportation system that makes reaching the nearest grocery store easy (Marin Community Services District, 2014). Marin City has five fast food restaurants and

convenience stores. The only other places in the neighborhood that sell food are CVS and the Dollar Store. Both these options have a very limited selection of fruits and vegetables, mainly lemons and limes (Marin Community Services District, 2014).

In Marin City around 75 percent of adults are overweight or obese (Lewis & Burd-Sharps, 2012). A lack of affordable, fresh and unprocessed food undoubtedly contributes to this alarming statistic. Within this community, nutrition education is not sufficient to meet the needs of the population. The Nutrition Wellness Program works with the Marin Community Services District and community members to bolster community advocacy efforts. Most recently, Marin City launched its Communities of Excellence (CX3) project to perform a comprehensive needs assessment of the community (Marin Community Services District, 2014). This assessment relied on data collected by the county, as well as the lived experiences of community members. Not surprisingly, a grocery store was one of the greatest needs of the community, as was improved walking paths and education programs (Marin Community Services District, 2014).

Project Implementation - Nutrition Education

Due to the demonstrated effectiveness of nutrition education programs, the Nutrition Wellness Program focused much of its time and attention on organizing and conducting classes. This was an involved process that began with contacting organizations that might be interested in hosting or conducting a nutrition education class. The majority of interested participants were schools who hosted classes that were taught by Marin HHS staff. These classes were either incorporated into the regular school day or were taught during summer school. However, some after school programs were also interested in hosting classes and did so on evenings or

weekends. Once a class was scheduled, a small team of nutrition educators, at least one of whom was bilingual, would usually conduct one to three classes with the same population of students. Ideally, each class would attend three different sessions, but if time was a constraint, the same lesson could be taught to three different grade levels.

In some cases, organizations were interested in not only attending a class, but in learning to teach the classes themselves. These, “train the trainer” events allowed the Nutrition Wellness Program to extend its reach. Agencies interested in train the trainer events were diverse, and at times unpredictable. A notable interest was Marin County’s juvenile probation officers. While the job of a probation officer is not directly connected with nutrition, they expressed interest. They stated that many of their charges had a disorganized nutrition education, and expressed interest in learning healthy habits. This was an example of an unexpected but effective partnership.

Once a nutrition education class or a train the trainer event was in place, it was necessary to determine which lesson would be the most effective for the audience. While lessons were often chosen based on the age of the students, they could also be chosen based on the demographics of the class. Often times, students from different cultures were interested in learning about the nutrition of certain foods regularly consumed in their culture. If the class was addressing a primarily Vietnamese audience, for example, the lesson could be customized to meet the needs of that population.

Participating in these nutrition education classes completed two learning objectives listed on the student learning contract. Specific goals listed on the learning contract included participating and co-teaching a nutrition education class and successfully planning and implementing the Fruit and Veggie Fest 2014. Both of those goals were met and accomplished.

While not specifically listed on the learning contract, teaching nutrition education classes were beneficially to a public health education for many reasons. Program planning, materials dissemination, and community education all played a role in these classes.

Project Implementation - Community Advocacy

While the focus of the Communities of Excellence (CX3) program in Marin City happened to be nutrition, the needs of the CX3 project were very unlike the needs of the nutrition classes. Marin City's CX3 project was based in community advocacy, rather than community education. Marin City is an interesting community, since it has recently shifted away from being a more disorganized community to an organized one with a common goal in mind. The residents of Marin City have been very invested in bringing a grocery store to their neighborhood, and have also investigated alternatives (Marin Community Services District, 2014).

In 2010 a farmers market was established in Marin City, but shut down due to low attendance (Marin Community Services District, 2014). This could be do in part to a lack of interest from the community, but could also be because the market had a hard time attracting costumers from the greater Sausalito neighborhood. While Marin City is geographically close to the rest of Sausalito, is a rather small community that tends to become isolated from the surrounding neighborhood. Since Marin City doesn't have a large population, attendance at the market could have been small even if a large percent of residents attended.

However, since the farmer's market was unable to attract enough business, several retailers have been discouraged from bringing a grocery store to the site. A grocery store,

however, could attract more customers than a farmer's market due to more comprehensive hours, wider selection and user friendly service.

While it is impossible to say for certain whether a grocery store would succeed where a farmer's market failed, it would be hard to doubt the enthusiasm of the community. Residents have long been lobbying for a grocery store, and have taken steps to set up a market analysis to try to demonstrate a large enough market to support a store (Marin Community Services District, 2014). If the market analysis came up favorable, community members could use it as evidence to entice retailers into their area.

The CX3 Project is unique in that it is guided by community members, and much of the research is performed by community members (Marin Community Services District, 2014). Surveys, community tours, and interviews are all done by community members with the support of Marin HHS and other organizations. From there the information is compiled and analyzed by health workers, and then presented back to the community. The goal of the CX3 Project is to support the wishes of the community, and to help guide future actions. The most recent meeting was a presentation of findings, and gave community members a chance to ask questions, make suggestions and plan for future action.

Observations and Findings

No matter what county you live in, addressing problems of poor nutrition and access is a daunting task. There is no "quick fix," and it can be difficult to determine the effectiveness of a program. The data suggests that nutrition education classes are an effective, longterm solution for combatting overweight and obesity (Guerra et al, 2011). However, it can be difficult to track

changes overtime, or to see them happening. Sometimes teaching classes of 5 to 30 students can seem like a drop in the bucket. How many children are actually being reached? Are these children able to create change in their home environments? Will they even remember these lessons once it is time for recess? All these are viable concerns about nutrition education classes. However, there has been an overwhelming outpouring of support among parents and teachers. The children participate enthusiastically in the class, and teachers report increased vegetable consumption at lunch and at break. “They even tried the spinach!,” one teacher claimed. Without the benefit of an expensive and time consuming cohort study, it is difficult to say for certain that the goals of the nutrition education classes are being accomplished. Decreasing obesity rates over time may be an indicator of success, but so many factors play into changing obesity rates that it’s hard to say for certain what caused the change.

While it may be difficult to determine if nutrition education classes are effective, they are almost certainly sustainable. In a perfect world, nutrition education classes could be worked into a student’s regular curriculum. Barring that, they are a relatively inexpensive way to provide valuable education to many school children in the county. A small team of nutrition educators can reach many students.

Interest in nutrition education is also on the rise. There is a high demand for it among parents and teachers, meaning that funding for education classes is more readily available. Full time teaching staff can also be supplemented by college and graduate interns, who can learn the craft while supporting the teaching staff. Aside from the staff salaries, the most expensive component of the nutrition classes was purchasing supplies for cooking demonstrations. Cooking demonstrations were a regular part of each class. Giving students a chance to watch healthy food

being prepared, and then allowing them to taste the food, sparked an interest in nutrition that was hard to capture in a strictly academic setting. In other words, the message was more thoroughly absorbed if it was presented in an entertaining way. While providing cooking demonstrations was effective it was also expensive. Luckily, retailers were often interested in donating food for a large event that could also serve as advertising for their store. Much of the food for the Health Food Fest 2014 was donated by local grocery stores. While this does not help ease of cost of nutrition education in the classroom, it did allow the Nutrition Wellness Program to host and participate in large events that provided food for hundreds of people.

Since obesity and poor nutrition is such a pressing issue in Marin, there are many organizations working towards improving education access to healthy food. This means that there are many potential partnerships that could be formed. The Nutrition Wellness Program worked closely with Lift-Levantate, WIC, CalFresh, First 5 Marin, Network for a Healthy California and the California Department of Public Health to develop and implement effective programming.

The structure of an organization will always effect the outcome of its programs, whether for good or for bad. There were definite benefits to operating nutrition education classes through Marin HHS. Schools and organizations were much more likely to be receptive to hosting an event through a well known government like the county health department. The information being relayed was most likely considered more trustworthy than it would have been coming from an unknown entity. The operating budget of the Nutrition Wellness Program was also bigger than that an NGO's operation budget might have been.

If there were upsides to teaching nutrition classes through Marin HHS, there were also downsides. There is a lot of liability and “red tape” that comes from being apart of the county government. While grants will always make programs adhere to a specific plan, governmental organizations can get especially bogged down. Once a plan is set in motion, it is very difficult to change it, even if there might be a more effective procedure.

In the case of Marin City’s CX3 Project, effectiveness is also difficult to determine. The first leg of the process, compiling the needs assessment, was completed with much enthusiasm from the community members and the partnering agencies. However, it is yet to be determined if the needs of the community will be met. The CX3 Project is a step in the right direction, and the enthusiasm and dedication from the community is inspiring. However, there are many barriers that stand in the way of Marin City getting a grocery store. Even if a grocery store was to be established, its success is not guaranteed. Despite the uncertainty, however, partner agencies, community members and local government officials are enthusiastic and optimistic.

Public Health Significance

The projects addressed by the Nutrition Wellness Program have a great public health significance that stretches beyond the most obvious. Nutrition and fitness is a real threat to the public’s health, but so is a lack of self efficacy. Nutrition education classes and community lobbying both have the potential to increase an individual’s and a community’s self efficacy. While it is important for organizations to lobby for a community’s health, it is also important that the community lobbies for itself. It is safe to say that the success of Marin City’s CX3 project is due, in no small part, to the enthusiasm of the community.

There are many lessons that can be learned from Marin City's CX3 project.

Determination is one of them, as is patience. It is also important to remember that the best community organizers aren't social workers, government employees, or even public health practitioners, but rather passionate community members who want to better the lives of their families and their neighbors.

Even if Marin City does not get a grocery store this year, next year, or even the year after that, there is a lot that can be done in the meantime. As a developing neighborhood, having a needs assessment can be particularly useful. It can demonstrate the community's goals for the future, as well as their values. When new government officials begin work in Marin City, they will have a clear idea of the community's wants and needs, and can more effectively lobby on their behalf. While they wait for a grocery store, Marin City is also developing other ways to improve residents' health. There is a newly created community garden, where people can grow their own vegetables. School-aged children have access to a comprehensive free and reduced cost lunch program. This can provide many children with one, and sometimes two nutritious meals five days a week.

Competencies Addressed

Participating in the activities of the Nutrition Wellness Program addressed many of the necessary competencies as outlined by the University of San Francisco's Master of Public Health Program. Participating in social marketing efforts via email, Facebook and at events was applicable to communication and informatics. Creating an intern orientation guide to help acclimate new students to the work environment fell into the same category. Understanding why

a specific program would be effective in a certain neighborhood demonstrated competency in social and behavioral science and well as program planning. Working with diverse neighborhoods, such as Marin City and San Rafael, demonstrated competency in diversity and culture. Studying rates of obesity, average life expectancies, and other health indicators showed an understanding of epidemiology.

While many courses taken at the University of San Francisco could be directly related to the activities performed for the Nutrition Wellness Program, the Community Based Participatory Research class was particularly applicable. In many ways, the CX3 project was an example of participatory research. Understanding the unique challenge of CBPR made navigating a complicated project much easier. Since there was also a vast amount of raw data that needed to be analyzed, the epidemiology class was also very important. Without a firm understanding of the principles of epidemiology, producing the necessary graphs and analysis would have been difficult.

While the county is divided into different divisions, interning at the county is a good way to experience many different types of public health action. The departments at Marin HHS do not work in a silo, therefore allowing students to practice a wide variety of academic skills in a “real world” setting. Within Marin HHS, there is probably a program that fits the criteria for every competency and core knowledge area.

Conclusion

At times, interning for Marin HHS was challenging. A government organization as large as a county health department can be difficult to navigate, even as an employee. As an intern, it

was easy to get lost in the shuffle. Learning the ins and outs of the organization was also difficult. It could be hard to determine who worked for what department, and who worked on which program.

At times it could even be difficult to determine who worked for the county and who worked for an outside organization. Many county employees work 80 percent or less time at the county, and have other jobs in different organizations. Oftentimes the work of the second agency would overlap with the work of the county, making it difficult to understand where the funding came from and who worked for what organization.

References

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Supervised Field Training in Public Health
Student Learning Contract – Attachment 1

Appendix

Goal 1:					
Objectives (S)	Activities	Start/End Date	Who is Responsible	Tracking Measures	
participate in healthy picnic planning	contact reba stores/ANOs create menu items	end May 17 th	Oscar Guardado kathryn litch	completion of picnic	
Goal 2:					
Objectives (S)	Activities	Start/End Date	Who is Responsible	Tracking Measures	
Assist with nutrition education classes	participate/prepare materials for class	ongoing	Oscar Guardado kathryn litch	successful completion of classes	
Goal 3:					
Objectives (S)	Activities	Start/End Date	Who is Responsible	Tracking Measures	
participate in program outreach dissemination	work on HEAL efforts/newsletter	ongoing	Rebecca Smith	continued online presence and good newsletter	
Goal 4:					
Objectives (S)	Activities	Start/End Date	Who is Responsible	Tracking Measures	
create informative outreach materials	create fact sheets/graphics and other work products	ongoing			

in



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**MASTER OF PUBLIC HEALTH
STUDENT / PRECEPTOR AGREEMENT AND LEARNING CONTRACT**

(To be completed by the student in consultation with the field experience Site Preceptor. Attach the Learning Contract and MPH Fieldwork Project Proposal)

Student: Anna Allison
Agency and Department/Division/Program: Marin HHS, Nutrition Wellness Program
Preceptor: Rebecea Smith
Dates of Placement: 5/12/14

I. Learning Contract – Attachment 1

Using the attached matrix to describe the project(s) in which you will be contributing, fill out following sections:

1. Overall goal(s) of internship
2. Measureable objectives that relate to the achievement of goal(s)
3. Activities that correspond to each objective
4. Start-end dates
5. Responsible parties involved
6. Tracking measures (evaluation indicators)

II. MPH Program Competency Inventory – Attachment 2

Of the USF MPH Program Competencies, Core Knowledge Areas, and Interdisciplinary Threads listed in the Fieldwork Handbook; identify which competencies, areas and threads you will address during this fieldwork experience. Please complete the inventory to address how you will demonstrate competency in the identified areas through the fieldwork experience.

III. Acknowledgements

We have participated in development of this field-training proposal and agree to the conditions specified above. If it becomes necessary to alter any of the specified conditions, we agree to make the changes known to each of the persons whose signatures appear below.

	Date
Student Signature	
	5/8/14
Preceptor Signature	Date
MPH Fieldwork Coordinator	Date