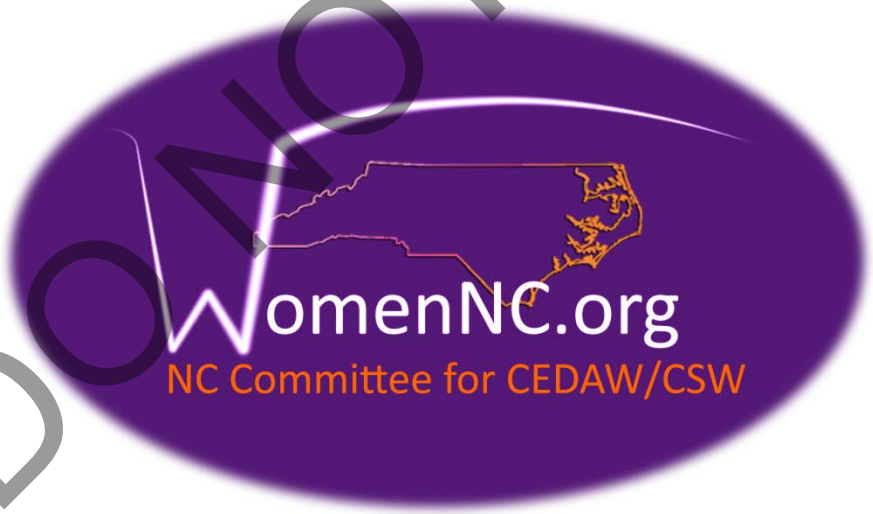
Community Health Systems

Empowering Rural North Carolina Women via Access to Health

February 16, 2012

Abby Bouchon

WomenNC CSW 2012 Fellowship



INTRODUCTION

My WomenNC CSW Fellowship will focus on how rural women can be empowered through health and access to health opportunities. In accordance with the Millennium Development Goals there is an absolute necessity to promote gender equality and empower women. The United Nations declares that the three essential areas of equity and equality are rights, opportunity, and living conditions ("Social", 2006). Health empowerment is essential for women in order to provide equal access to opportunities and standard of living for both women and their families. Women must be provided with the opportunity to improve their health and wellness. However, this can present difficulties in rural communities with less access to health care systems.

In order to address the Millennium Development Goals with awareness of determinants of health, we must strive to create multifaceted community health responses. Community health approaches have shown to be successful both locally and internationally, and include community health workers and community organizational approaches. Despite varying approaches, partnerships within community health may have long-term impacts on multiple public health disparities by "transforming cross-cutting factors" like civic engagement or social trust, which are imperative for improving discrete health incomes and overall well-being (Roussos, Fawcett, 2002). This paper explores research and practices of community health for rural North Carolina women as an indicator for successful approaches for other women, both nationally and internationally. Specifically, the comparison of the HOPE Projects and the North Carolina Breast Cancer Screening Program are two exemplary North Carolina organizations that utilize practical and successful methodology as collaborative partnerships.

OBESITY AND BREAST CANCER: A "LOCAL-TO-GLOBAL" LOOK

The WomenNC CSW Fellowship has provided me with the unique opportunity to see how health disparities *and* health solutions exist locally, nationally and internationally. Breast cancer and obesity are epidemics that I observe in my family and local communities, so it is essential to see what is effective to combat these health conditions. An awareness of how to combat an issue must be rooted in first *understanding* the statistics and demographics afflicted.

North Carolina has a higher-than-average breast cancer incidence rate of 123 per 100,000 women, which is higher than the national average of 121 per 100,000 women ("Breast Cancer Statistics". From 2004-2008, the US Government measured breast cancer incidence rates and mortality rates by race. White women had the highest incidence rate at 127.3 per 100,000 women, followed by black women with an incidence rate of 119.9 per 100,000 women and Hispanic women at 92.1 per 100,000 women. However, the death rates by race show that black women have the highest mortality rate at 32.0 per 100,000 women, followed by white and Hispanic women at 22.8 and 15.1, respectively ("Surveillance Epidemiology"). These statistics show that the increased rate of breast cancer in North Carolina may be influenced by racial disparities, along with other factors.

Breast cancer is the most common cancer in women worldwide, comprising of 16 percent of all diagnosed female cancers. Breast cancer rates are increasing in developing nations, and 69 percent of all breast cancer deaths occur in developing nations. This staggering statistic may result from a lack of early detection programs and knowledge, therefore leading to later-stage diagnoses. The World Health Organization states that "early detection in order to improve breast cancer outcome and survival remains the cornerstone of breast cancer control" ("Breast Cancer"). While

mammography screening is limited in resource-poor settings, early diagnosis is an important tool for international and national detection of breast cancer. ("Breast Cancer").

In North Carolina, 65.7 percent of adults are overweight or obese, with 27.8 percent obese (BRFSS, 2008). This compares to the national rate of 68.3 percent of Americans who are overweight or obese, with a national average of 33.9 percent of all Americans being obese. Furthermore, a national study showed that obesity is more common among all racial demographics living in rural America when compared to white urban adults (Patterson et al, 2004). Women are more likely to be obese, especially with racial minorities. A recent study showed that among women age 60 and older, 61% of black women and 37 % of Hispanic women were obese, while only 32% of white women were obese (Ogden et al, 2007).

Internationally, the prevalence of being overweight and living in a rural community increases with more developed nations. For instance, Central Eastern Europe, Latin America and the United States all show obesity to be more evenly distributed among rural and urban populations, as compared to developing African nations. An obesity study on women from developing countries showed that "rising national incomes in developing countries and increased 'Westernization' will most likely lead to increased levels of obesity in the future (Martorell, 2000). However, this extensive study did not represent data from large nations such as India & China, which suggests that further research must be done in rapidly developing and expanding nations. Obesity is a complex, multifaceted issue, and studies have shown that race and poverty are correlated with being predictors of being overweight. These social determinants of health must be addressed as a part of this complex epidemic (Appel et al, 2002).

SOCIAL DETERMINANTS OF HEALTH

The social determinants of health are the circumstances in which people are born, live, work, and age, and the systems put in place to deal with illness. These circumstances are in turn shaped by a wider set of forces: economics, social policies, and politics ("Social Determinants", n.d.). Recognizing what social determinants of health play a role within communities can lend recognition to understanding fundamental inequities and how they play a role in an individual's access to health.

Specifically, community-level public health activities, income, and education are three determinants of health which influence rural North Carolina women. Community-level public health activities are determinants of health in the sense that they shape the quantity and quality of resources available to members of society. Community health systems are an essential resource for rural women because they positively influence determinants of health. Income and socioeconomic status also play a profound role, as seen in discrepancies associated with health and income level. Studies have shown that income inequity can predict excess mortality (Kawachi, 1997). A lack of income can influence a breadth of material deprivation, which includes indicators such as access to clean water, sanitation, shelter, education, information, food, and health (Birn, Pillay and Holtz, 2009). Another determinant of health is education. Education is associated with higher health status because of an increased likelihood for safer, better paid jobs with benefits, and the ability to advocate and receive protective health measures. Furthermore, education empowers individuals "to improve their health through their range of employment possibilities, neighborhood selection, political participation, and understanding of, and ability to avoid or respond to, a variety of impediments to health" (Birn, Pillay and Holtz, 2009).

A lack of income, education, and health systems can restrict female empowerment by inhibiting quality of life and access to opportunities. Community health systems can provide women with treatment to improve health and wellness, and the awareness to increase education within the community about healthy living. I want to focus on two parts of community health systems: collaborative partnerships and community health workers. Within the context of the HOPE Projects and the North Carolina Breast Cancer Screening Program, community health workers are individuals that deliver health messages that are designated and supported by affiliated collaborative partnerships. I will first discuss collaborative partnerships and then explore the essential role of community health workers. Then, I will introduce and compare at how two exemplary collaborative partnerships work to empower rural North Carolina women by using community health workers.

DEFINING COLLABORATIVE PARTNERSHIPS

Collaborative partnerships are an alliance among people and organizations from multiple sectors who are working towards a common purpose to improve health conditions and outcomes for an entire community. Collaborative partnerships work towards improving determinants of health via "broad community engagement in creating and sustaining conditions that promote and maintain behaviors associated with widespread health and well-being" (Roussos, Fawcett, 2002). Core aspects necessary for successful collaborative partnerships include having a clear mission and vision, action planning for community and systems change, developing and supporting leadership in the community, documentation and feedback on progress, and sustaining pertinent outcomes that are community-relevant indicators of success (Roussos, Fawcett, 2002). There are several assumptions made about the strategy of collaborative partnership:

A) the goal cannot be reached by any one individual or group working alone
B) participants should include a diverse group of individuals who represent the concern and/or geographic area or population
C) shared interest make consensus among the prospective partners possible

Empowerment through health equality for rural women is absolutely a goal that cannot be reached alone, although change is dependent on individuals developing their own outlook and behavior. Furthermore, many different individuals and demographics have a vested interest in health empowerment, such as Public Health advocacy groups, community health workers, and individual women within rural communities. Multifaceted approaches are necessary for sustained improvement in rural women's health. In order for these approaches to be applicable and accepted by the community, however, there must be community members engaged with the cause. Sustainability can only be achieved when community members are willing to provide a foundational role of communication and action for the health message, therefore supporting sustainable and long-lasting dissemination. Community health workers are an excellent resource for sharing a health message from a collaborative partnership to the community in an applicable, culturally-sensitive way.

DEFINING COMMUNITY HEALTH WORKERS

According to the World Health Organization, Community Health Workers (CHW) are defined as "workers who live in the community they serve, are selected by that community, are accountable to the community they work within, receive a short, defined training, and are not necessarily attached to any formal institution" (Swider, 2002). CHWs are also referred to as "lay health workers", "primary health care workers", and "rural health assistants" (Sanders et al, 2007). While the specific roles of CHWs are loosely defined and vary according to region

and population, CHWs are utilized as a method to increase community health promotion efforts. The United States have felt the importance of CHWs since the 1960's as an approach to reach underrepresented populations, where workers function to reach those who are missed by traditional health care systems (Rosenthal, 1998). However, the impact of a CHW is less researched, and it is important to understand the roles and effectiveness that CHWs play in rural communities.

A recent study focused on analyzing the specific populations served by CHW in nineteen publications. The majority (63.2%) of the CHW studies focused on reaching low income, underrepresented women and children. 79 percent of studies measured changes in access to health care in target populations, such as encouraging screening or follow-up appointments. Specifically, studies that measured CHW encouraging women to receive scheduled cancer-screening tests were determined to be effective, but follow-up rates were sometimes poor or incomplete (Swider, 2002). The study concluded that CHWs are most effective in increasing access to care, but further work was needed to increase the rate of standardized measurements, decrease reliance on self-reported data, and significantly increase defined interventions. While the majority of CHW studies (79%) reported some positive outcomes, it was difficult to conclude anything about overall effectiveness due to extensive differences in roles, target populations, and measured outcomes. (Swider, 2002).

Below are summaries of three studies done on the impact of CHWs sharing a specific health message to women in rural North Carolina communities:

- **Use of Community Health Workers in Research With Ethnic Minority Women: Latina farmworkers in NC**. The CHW focused on knowledge access for prenatal care and the outcome results showed that "mothers with exposure to CHWs were more likely to

bring their children to sick childcare and have greater knowledge about health practices" (Watkins et al, 1994)

- **Eastern Band Cherokee Indian Women In North Carolina:** The CHW focused on knowledge access for cervical cancer screening, which showed that "women who received the education were more likely to have higher knowledge and to report having a Pap test in the past year than did women in control groups" (Corkery et al, 1997)
- **Lumbee Indian Women in North Carolina:** The CHW also focused on cervical cancer screening, and results showed that "the education program delivered by CHW educators positively influenced knowledge and behaviors" (Dignan et al, 1998)

In addition to increasing knowledge, access to health services and behavior change among communities in North Carolina, CHW also provided social support and cultural competence. Utilizing community members as a means to bridge the discrepancies allows the community to gain access to existing resources that otherwise may have remained unused (Sanders et al, 2007). Furthermore, "because of their inherent cultural knowledge and experiences with the community, CHWs served as vital community resources by developing culturally specific emotional support (i.e., listening, showing trust and concern), informational support (i.e., providing advice, suggestions, directives, and referrals), and appraisal support (i.e., giving affirmation and feedback)" (Andrews et al, 2004). The HOPE Projects and North Carolina Breast Cancer Screening Program both use CHW as a part of their collaborative partnerships because of their essential role in communicating within communities.

THE NORTH CAROLINA BREAST CANCER SCREENING PROGRAM

An example of collaborative partnerships in North Carolina is the North Carolina Breast Cancer Screening Program (NC-BCSP). NC-BCSP was a 10-year intervention program to address mammogram disparities between African-American and white women by utilizing lay health workers as educators for mammogram use (Earp et al, 1995). Despite higher incidence rates for white women, African American women have higher mortality rates from breast cancer due to lower rates of mammography screening. NC-BCSP's goal is "to create linkages across agencies, as well as to build partnerships between agencies and communities, that will endure after the grant has ended" (Earp et al, 1995). Within the study, lay health workers from the community were trained to share knowledge about breast cancer screening via one-on-one conversations in churches and beauty parlors. The study showed that lay health workers are an effective way to increase mammogram screening for rural African American women in North Carolina, with self-reported mammography use increasing from 41% at baseline to 58% at a follow-up interview approximately 32 months later ("North Carolina", 2011).

The NC-BCSP collaborative partnership is large and multifaceted. Local public health agencies and universities (directed by a team at UNC Lineberger Cancer Center, Duke University, NC Office of Rural Health, NC Division of the American Cancer Society) are involved alongside local health agencies, such as county health departments, radiology centers and rural health centers. In order to assure that objectives are met, there are three intervention components that are complimentary and reinforcing: Outreach, Inreach and Access. **Outreach** activities specifically focus on the use of CHWs as a way to increase community awareness of breast cancer screening. **Inreach** activities are directed towards assisting local health departments and community health

centers to organize, increase and expand breast cancer screening activities. Furthermore, **Inreach** works with policy change and staff training to make clinics more aware of breast cancer screening. The third intervention is **Access,** which focuses to reduce structural barriers such as transportation and cost, which may serve as inhibitors for low income women to obtain mammograms (Earp et al, 1995).

I had the opportunity to interview with Alexia Moore and Joanne Earp, project managers of the NC-BCSP, about the importance of community health workers within the program. As a nationally recognized program, both women stressed that "capturing the essence" of BCSP lies in the upfront time it takes to recruit successful CHWs. The importance of choosing women with strong reputations as trustworthy, compassionate, and strong public speaking skills is essential to dispersing a health message. Furthermore, these women must have access to many communities such as churches, senior centers, and public health organizations so to spread awareness in various social circles. Churches in particular are considered to be the strongest social experience within rural communities, especially in African American communities, because they remained more intact during times of racial discrimination than other social foundations (Earp & Moore, 2012).

Once women with positive attitudes and of the appropriate socioeconomic status and race are identified, then training from Community Outreach Specialists (COS) can begin. COSs are community leaders in local health departments, and trained CHWs with technical knowledge regarding breast cancer, breast cancer screening, and eligibility for breast cancer screening payments (Earp et al, 1995). Training was a minimum of twelve hours and focused on local women's unique barriers and specific issues about breast cancer screening. CHWs were then able

to work as "links between the professional health care industry and their own community" by presenting culturally-sensitive knowledge about breast cancer screening as natural leaders within the community ("North Carolina", 2011). One such tool is the BCSP bead necklace, which has six separately-sized beads that represent the size of a lump that could be found by women on their breasts, depending on their awareness and frequency of screening (Earp & Moore, 2012). NC-BCSP has trained over 200 community members from Martin, Washington, Tyrrell, Bertie and Beaufort counties as lay health workers.

While BCSP intended for CHWs to successfully communicate with other women about breast cancer screening, Earp and Moore stated that they didn't anticipate the overwhelming effort that many CHWs committed to their work, such as providing transportation and accompanying women who have anxiety over mammography screening. There was an annual conference to celebrate and thank BCSP's CHWs, including an "Outstanding Lay Health Advisor" award. This conference, combined with bi-monthly meetings with other CHWs from surrounding counties, would bring together a supportive community of CHWs to share experiences, provide advice and plan awareness events. Furthermore, meetings and annual conferences allowed CHWs to continue to be empowered through education and learning about different communities in rural North Carolina. Women would work together to provide transportation and limited resources as a social support system, thus strengthening collaboration (Earp & Moore, 2012).

THE HOPE PROJECTS

The HOPE Projects are a community-based obesity prevention and empowerment program for low income, ethnically diverse women in rural eastern NC. The HOPE Projects stem from

nearly twenty years of community-based health promotion programs starting in 1993 oriented towards work-place health promotion, known as Health Works. The Centers for Disease Control and Prevention (CDC) stressed focusing on Community Based Participatory Research (CBPR), and results of the first "sister" in the HOPE Projects resulted in creation of an employee-wellness committee, inclusion of water in vending machines, salads available for lunch, and visitation of a "mammogram van". Furthermore, trained lay health workers known as "natural helpers" within the workplaces provided support and education on stress reduction, physical activity, healthy eating, and smoking cessation. These lay health workers were selected as natural female leaders in the workplace, and then trained accordingly as individuals capable of reaching many women with health promotion messages (Barnes, 2011).

However, due to the outsourcing of textile manufacturing, many workplaces began to shut down and the HOPE Projects shifted accordingly to community-based health with the formation of HOPE Works, which operated in Sampson and Duplin Counties for 6 months. Funded by the CDC and UNC Health Promotion and Disease Prevention, HOPE Works focused on community in the sense that it was the community choosing the design, designating leadership and implementation with academic support from UNC-Chapel Hill. HOPE Works saw the introduction of HOPE Circles, which are bi-monthly meetings led by trained community member HOPE Circle Leaders. Each circle consisted of 10-12 overweight or obese women over the age of 18, and approximately 200 percent below the Federal Poverty Line ("Page", 2011). A CHW lead each HOPE circle and fostered social support, taught strategies for weight management, and help goal-setting for reaching health and economic/educational objectives (Page, 2011). A study on HOPE Works showed that women

who met in circles lost 4-5 pounds over 6 months, increased fruit and vegetable intake, and increased physical activity.

The success of HOPE Works led to the creation of HOPE Accounts, an Individual Development Account program, and Seeds of HOPE, the current HOPE Project sister which runs from 2009-2014 (Barnes, 2011). Hope Accounts helped women gain both financial literacy and an opportunity to match up to $600 in savings and assets, and the 7 month program operated in Sampson, Duplin, Lenoir, Harnett and Robeson counties. Currently, Seeds of HOPE is a community based participatory research project that promotes financial literacy and collaborative goal-setting for health, finances, and emotional well-being. HOPE Circles are currently being formed and the twelve-month study will work in Sampson, Duplin and Robeson counties as an obesity prevention method. The Seeds of HOPE manual is currently being developed, but the HOPE Accounts 'health and wealth journal' provided some useful information about the HOPE Circles. The health and wealth journal is full of activities and lessons that help "gain perspective on the areas of [participants] lives where we can make changes, and help [participants] make realistic and attainable goals" ("Hope Accounts", n.d.). Specific topics for each session are listed in Appendix A.

HOPE Circles utilize prior community infrastructure for CHWs to begin disseminating health messages to churches, book groups, and American Indian tribes. The strength of a uniting factor like a social network allowed for more consistent participation. HOPE circles can continue after the project and morph into a group of volunteers, voter registration, or simply continue to provide communal support. A typical HOPE Circle is approximately two hours long and follows a schedule as follows:

15 minutes: Meet, greet and eat healthy refreshments

15 minutes: check in with PIES. PIES is a way for each women to express how she's feeling **p**hysically, **i**ntellectually, **e**motionally, and **s**piritually in one sentence.

15 minutes: Women review and discuss goal progress and challenges

45 minutes: Circle Leader presents core content for the session (ex: healthy eating)

20 minutes: Fitness activities

10 minutes: wrap-up and plan for next session

The HOPE Circle method is highly successful method for CHWs to serve the community. They play a crucial role in Community Based Participatory Research, which uses a research topic important to the community and works with the community to benefit all partners involved. The Center of Health Promotion and Disease Control at the University of North Carolina at Chapel Hill and the CDC are two large organizations that fund the HOPE Projects, along with working side by side with community residents, health agencies, churches and tribal centers in the community ("Seeds of HOPE", n.d.).

COMPARISON OF HOPE PROJECTS AND NC-BCSP

The CHWs in BCSP worked to promote breast cancer screening in churches and beauty salons, in addition to one-on-one conversations with women. BCSP targeted a more specific population and focused on one health message with multiple approaches. Materials used for spreading information on breast cancer screening include the beaded necklace, hymnal markers, hand fans, posters and church bulletins. The bulletins were multipurpose and provided inspirational Bible verses, recipes with nutritional information, and contact information for local "Save Our Sisters" CHWs. In this manner, CHW intervention materials were disseminated with

affiliation to "useful" objects that would be referred to again. Bible verses on bulletins were specifically chosen to enhance a message for breast screening awareness, as seen in the example excerpt below:

"A Worthy Woman"

"Strength and dignity are her clothing, and she smiles at the future. She opens her mouth in wisdom, and the teaching of kindness is on her tongue. " *–Proverbs 31: 25-26*

- A woman wears her clothing of strength and dignity by taking care of her health.
- A woman smiles at her future when she has a mammogram that can detect cancer early
- A woman opens her mouth in wisdom by telling her sisters why mammograms are important.
- A woman teaches kindness by helping her sisters get mammograms to prevent breast cancer.

While the CHWs performed the same role of providing a health message through companionship, the methodology between the HOPE Projects and BCSP is different. The HOPE Projects trained CHWs to work through an existing structure (i.e. a church community) to create a new community structure, a HOPE Circle. HOPE Circles focus on addressing the complexity of social, environmental and economic factors that influence health factors such as obesity. Within the circles, women engaged in collaborative and healthy goal setting for a variety of topics including physical activity, education, and financial literacy. In this sense, CHWs focus consistently on 10-15 women once a month, providing a large variety of health and financial literacy messages (see Table 1). The HOPE Projects have a more diverse population pool, including Caucasian, Latina, African American, and American Indian women ("Page", 2011). In order to cover a more diverse array of topics, the HOPE Projects provides every individual with a personalized monthly health newsletter. The newsletter has encouraging quotes and stories, tips for setting S.M.A.R.T (Specific,

Measurable, Attainable, Rewarding, Timely) goals, healthy recipes, and links to online resources for community colleges and finding employment.

Together, the HOPE Projects and the NC-BCSP highlight unique features that make both organizations exemplary examples of collaborative partnerships in rural North Carolina. Primarily, both organizations utilize community health workers as an essential tool for reaching out to the community with a health message. CHWs provide a strong link between communities, academia, and local health care systems by acting as a conduit to introduce specific health messages into the community. Churches acted as a foundational community infrastructure in both collaborative partnerships, highlighting the importance of creating sustainability by relying on prior social infrastructures. CHWs in both HOPE and BCSP utilized these prior community infrastructures to spread health messages, but HOPE has a greater breadth of topics to be disseminated. The scope of health messages and populations served in HOPE Projects make the collaboration and resources required much more extensive. It is also harder to measure direct influence of CHWs in a collaborative partnership where the heath messages are intertwined but not quantitative. The BCSP is a more appropriate model for a smaller, more focused collaborative partnership. By specifically measuring an increase in awareness of breast cancer and number of mammography's received, BCSP was able to qualitatively report on how CHWs successfully disseminated two health messages (Rauscher et al, 2004).

In conclusion, both the HOPE Projects and the North Carolina Breast Cancer Screening Program represent successful collaborative partnerships in rural North Carolina that empower women by exposing them to health care. Specifically, the use of community health workers in both programs allow for the University of North Carolina at Chapel Hill and other collaborative

organizations to disseminate health messages within the community. The BCSP collaborative partnership is more appropriate for a single, direct message (i.e.: breast cancer screening) while the HOPE Projects represents an expansive, multifaceted organization that focuses on several health topics that intertwine with social determinants of health. However, both organizations fundamentally serve the purpose of empowerment by enabling rural North Carolina women to have more equal access to health care, despite barriers in income, education, and location. Furthermore, through the assistance of community health workers, both organizations raised awareness of health care options via educational and culturally sensitive materials. By utilizing community-centered health partnerships for rural women on both interpersonal and organizational levels, North Carolina serves as a leader in community health systems and rural female empowerment.

Session Overview	Session Activities
Session 1: IDA Overview	Individual Development Accounts: Matched savings program in HOPE Accounts; enable low income individuals to build assets
Session 2: Poverty and Health	Making S.M.A.R.T. financial goals
Session 3: Stories and Hope	Tips for achieving goals
Session 4: Healthy Weight	Benefits of healthy weight; food diary; BMI
Session 5: Budgeting and Keeping Track of Money	Financial diary; expense worksheet; monthly payment schedule
Session 6: Healthy Eating	Measuring serving size and reading food labels
Session 7: Physical Activity	Types of exercise; physical activity tips; personalized exercise plan
Session 8: Reaching Goals and Hope for the Future	Barriers to happiness; time management
Session 9: Pay Yourself First: Save and Create Assets	Filling out deposit slips; good vs. bad debt
Session 10: Improving Job Skills	Sample interview questions; guide to creating a resume
Session 11: Boost your Health	Dealing with stress; Setbacks in weight loss
Session 12: Understanding Credit	Defining credit; debt trouble
Session 13: Small Business Development	Skills for owning a business; credit report

Appendix 1 provides an overview of topics covered in a HOPE Accounts Health and Wealth Journal ("Hope Accounts", n.d.)

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