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## The Role of Cooperative Extension in Chronic Disease Prevention and Management: Perspectives from Professionals in the Field

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## The Role of Cooperative Extension in Chronic Disease Prevention and Management: Perspectives from Professionals in the Field

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## **The Role of Cooperative Extension in Chronic Disease Prevention and Management: Perspectives from Professionals in the Field**

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*Chronic diseases are strongly associated with premature death and increased health care costs. Nearly half of American adults report they have one or more chronic health conditions. Cooperative Extension is calling for refocus to refine and align with broader efforts to promote public health by supporting the prevention and management of chronic disease. The success of this refocus is dependent on a shared vision between funding agencies, stakeholders, and Extension. As part of developing this shared vision, the Chronic Disease Health Implementation Team surveyed 152 Extension administrators, faculty, and Extension Agents/Educators to determine their perception of the role of Extension in chronic disease prevention and management in the next century. Respondents answered the open-ended question, "What role should Cooperative Extension have in working to reduce chronic diseases in America for the next 10, 25, and 100 years?" Analysis with grounded theory identified three themes. The respondents perceived the role of Extension professionals as educators and collaborators in chronic disease prevention and management who focus on influencing individuals and environments. As educators, Extension should deliver evidence-based programs to communicate, inform, facilitate, and teach. As collaborators, Extension should facilitate and nurture partnerships to effect changes in chronic disease prevention and management at individual, family, and community levels.*

**Keywords:** chronic disease prevention and management, Cooperative Extension, Extension, public health, family and consumer sciences, socio-ecological theory, Health and Wellness Framework, Extension Committee for Organization and Policy, ECOP Action Teams, nutrition

## **Background**

Chronic diseases are strongly associated with premature death, increased health care costs, and lost productivity (Centers for Disease Control and Prevention, 2017). As of 2012, about half of all adults—117 million people—had one or more chronic health conditions and one in four adults had two or more chronic health conditions (Ward, Schiller, & Goodman, 2014). Eighty-six percent of the nation's \$2.7 trillion annual health care expenditures are for people with chronic and mental health conditions (Gerteis et al., 2014). The goals of chronic disease prevention and management are to prevent disease occurrence, delay the onset of disease and disability, lessen the severity of disease, and improve the health-related quality and duration of an individual's life (Doll, 1985). Prevention efforts traditionally involve interventions performed before the clinical onset of disease or early in the course of disease, while management efforts may occur later in the disease course and are often focused on reducing the undesired consequences of diseases (McKenna & Collins, 2010). The U.S. Department of Health and

Human Services published Healthy People 2020 that focuses on reducing preventable death and injury and includes ambitious, quantifiable objectives to achieve national health promotion and disease prevention goals for the United States within a 10-year period (U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion, 2010).

Successful community prevention efforts have been guided by ecological models (e.g., Bronfenbrenner, 1979), which recognizes the multifaceted influences on behaviors associated with chronic disease. For interventions to be relevant, socio-ecological theory suggests targeting not only individuals, but their socio-environmental “upstream” influences, including social networks, organizations, communities, and policies. Cooperative Extension (Extension) believes that its focus of addressing health should be refined and better aligned with these broader efforts to promote public health, prevent and manage chronic disease (Braun et al., 2014). The local presence of Extension in states and counties throughout the nation position it to play an important role in efforts to address chronic disease prevention and management.

### ***The Cooperative Extension National Framework for Health and Wellness***

In 2014, the Extension Committee on Organization and Policy (ECOP) released Cooperative Extension’s National Framework for Health and Wellness (Braun et al., 2014) based on the socio-ecological model (Bronfenbrenner, 1979), which described the priority areas for Extension in health promotion. The framework represents the relationships among individual, community, and societal factors that influence individuals’ attitudes, beliefs, behaviors, and choices within the context of where they live and work, as well as the social and cultural norms such as economics, educational and social policies, and inequalities. With this backdrop, the overall goal of the Health and Wellness Framework is to increase the number of Americans healthy at every stage of life. Aligning with the socio-ecological model, Extension should work in the domains of health literacy, health insurance literacy, positive youth development for health, chronic disease prevention and management, and health policy issues education to ultimately create healthy and safe environments and promote healthy and safe choices. In doing this, the Framework for Health and Wellness suggests that “Extension can do for the nation’s health what it did for American agriculture” (Braun et al., 2014, p. 2).

### **Purpose**

To further refine the role of Extension in addressing health and wellness, ECOP commissioned Health Action Teams around the five domains of health literacy, health insurance literacy, positive youth development for health, chronic disease prevention and management, and health policy issues education. Each team was charged with assessing and evaluating how Extension should and can be at work to improve the health of Americans in these domains. The purpose of

this report is to describe the work on the domain of Chronic Disease Prevention and Management (CDPM) Action Team.

The success of Extension in health promotion and, specifically, chronic disease prevention and management is dependent on a shared vision among funding agencies and other stakeholders, Extension administrators, specialists, faculty, agents, educators, and clients. We sought to describe one aspect of that shared vision and report on how Extension specialists, faculty, and agents/educators perceive the role of Extension in CDPM in the next century.

### **Methods**

The qualitative data presented in this paper are drawn from an environmental scan conducted by the ECOP's CDPM Action Team in 2016. Extension administrators, faculty, and agents/educators were recruited to provide feedback on CDPM-related curricula, projects, programs, partnerships, and barriers to action. The purpose of the environmental scan was to identify information needs, seek that information, and implement it (Choo, 2001).

The team followed Albright's (2004) five-step process in completing the environmental scan: (1) identify the environmental scanning needs, (2) gather the information, (3) analyze the environment, (4) communicate the results, and (5) make informed decisions. A snowball sampling strategy was used to distribute electronic surveys nationally to Extension Educators who had a Family and Consumer Sciences or Health Sciences focus. Surveys were initially distributed to state Extension program leaders who then distributed them within their states. Online survey responses were obtained from 152 Family and Consumer Science/Health Sciences Extension professionals throughout the United States, providing information about 71 programs in 17 states. Twenty-eight individuals completed the personal information question which was at the end of the survey. Of those 28 who provided responses to the personal information questions, most were female (93%), between the ages of 30-64 (82%), split between specialists (54%) and agents/educators (46%), and represented county (50%) and statewide/regional positions (50%).

In the environmental scan, respondents were asked to provide information about current Extension programs within their states that focused on preventing or managing chronic disease(s). In addition, respondents were asked the open-ended question, "What role should Cooperative Extension have in working to reduce chronic diseases in America for the next 10, 25, and 100 years?" One hundred-one (66.4%) individuals responded to this question about Extension's future.

## Analysis

Qualitative methods allow for a naturalistic approach to the research subject, situating the researcher inside the world of the research participant (Denzin & Lincoln, 2011). By using qualitative methods, the research team was able to focus closely on the research participants' point of view and their construction of the future role of Extension in chronic disease prevention and management. Qualitative methods allow for greater understanding of phenomena in context but are not necessarily meant to be generalizable to populations (Denzin & Lincoln, 2011).

Using grounded theory, two research assistants coded and analyzed the data through memo writing and initial, focused, and selective coding phases (Charmaz, 2006; Corbin & Strauss, 1990; Flick, 2014). Coders used MAXQDA 12 software for coding. Grounded theory provides procedures and canons for qualitative researchers to understand phenomena and minimize bias (Corbin & Strauss, 1990). An iterative process was used to categorize individual responses into themes and subthemes. Each research assistant separately read the responses and identified a set of overall themes and subthemes. The research assistants then convened to agree upon a common set of themes and subthemes. The responses again were re-read separately by the researchers and categorized into the agreed-upon themes and subthemes. Finally, the two research assistants reconvened to build consensus on where responses were categorized. If the research assistants could not come to an agreement upon the theme to which a response belonged, a third research assistant would break the tie.

## Results

The following themes emerged from the coding and analysis processes: (1) the traditional Extension role, (2) focus on “systems,” and (3) leveraging the assets of the Land-grant System.

## Themes

**Theme 1: The traditional Extension role.** The first theme that emerged was that the role of Cooperative Extension in addressing CDPM should be the traditional role of local, interpersonal education and collaboration. As educators/agents, Extension should deliver evidence- or research-based programs in order to communicate, inform, facilitate, and teach about CDPM.

An exemplar quote from a respondent was:

I think that Extension should have the same role it has always had – educating citizens about living healthy lives. We do this through involvement in research, utilizing evidence-based curriculum, being embedded in communities, identifying needs, building partnerships, and fostering relationships.

Additionally, as collaborators, Extension should encourage and develop community partnerships to address CDPM and to effect changes at the individual, family, and community levels. This will involve connecting with content experts who may be embedded in the healthcare system. Another role will be to link healthcare providers to other social service providers to better address the social determinants of health. One respondent said, “Extension should play a lead role with other public health and prevention health stakeholders. This work must be collaborative to have the reach and impact that is needed.”

Another response was:

I think Cooperative Extension should continue working in collaborative relationships with various agencies to promote health and wellness and to continue to encourage healthful living. Helping others by teaching about nutritious food, healthful ways of food preparation, and the importance of physical exercise is going to continue to be needed far into the future.

Other terms used by respondents that described Extension’s role included:

- Educator: programs, communicate, inform, facilitate, and teaching.
- Collaborator: partner, partnership, link, contributing, participate, bridge, and foster.

**Theme 2: Focus on “systems.”** A systems focus might involve partnering with or providing education to organizations that can influence socio-ecological determinants of health. Examples of these activities might include educating food service directors about smarter lunchroom concepts, coaching food pantry directors to offer healthier selections, promoting walking programs within workplaces, or partnering with city planners on coalitions to improve transportation options to grocery stores.

Quotes from respondents that were representative of this theme included:

I believe Cooperative Extension should be at the forefront of this issue. We should be taking steps to offer chronic disease prevention classes and screening alongside our health departments, partnering with them to extend each other's reach, and building off each other. We should be working with hospitals and doctor’s offices to place ourselves where our sick are, and we should be in the workplace where our healthy are to maintain that health. We should have our boots on the ground while we have our voices to the ears of policy makers.

and

Clearly focused on prevention, so the focus is on changing health behaviors that will reduce one's risk for the chronic diseases or the effects of the chronic disease. Some of this work could be direct education or work within communities to address their environments and policies that impact chronic disease risk. It could also include work with organizations to help them put in place key changes that will help members/employees of that organization to address factors to reduce their chronic disease risk.

**Theme 3: Leveraging the assets of the Land-grant System.** Extension has a widespread footprint, the ability to reach the underserved, and public trust. In the age of the internet, individuals can access information in an instant. Likewise, anyone can post information that may or may not be evidence-based. Extension can serve as a filter for evidence-based information related to CDPM relevant for each individual's situation.

A quote from a respondent that is representative of theme three was:

Cooperative Extension (CE) has a significant role in chronic disease prevention through educating and connecting Americans to the resources they need to manage their own health. As a trusted source of information, CE can translate the science into understandable information that is helpful as consumers take responsibility for their own health. Likewise, CE can have a significant impact on public health by providing educational resources and programs focused on prevention throughout all stages of life.

Additionally, other respondents perceived that Extension brings assets that are unique to Land-grant institutions. Extension's role in CDPM might include the participation in and interpretation of clinical and field scientific research. Some suggested that Extension is well positioned to address food and health systems, especially with its connection to policymakers, health, and agriculture. Extension also has connection to faculty and staff with expertise in food nutrition and exercise.

Perhaps the best overall summary quote from a respondent was:

Cooperative Extension should play an increasingly significant role in chronic disease prevention and management as health educators and agents of change. We have a long history of providing direct education, and we can and should continue to do that well. We should also move toward delivery of programs that empower clients to be agents of change on matters related to policy, systems, and environments. We are the most qualified and well-prepared agency of all in our states to provide research-based

education and programming to effect change on health-related outcomes. We must continue to work with researchers to be the preferred partners in translating impactful research.

### **Discussion**

As reflected in analysis of the responses with grounded theory, respondents felt that Extension is well positioned to address chronic disease because of its presence and trust in local communities throughout the nation. Extension educators are seen as skilled educators, facilitators, and collaborators, and therefore can bring together coalitions, provide trainings to organizations, and implement education programs in order to influence socio-ecological determinants of health. Perhaps though, especially in urban centers, Extension is one among many potential providers of health-related information and education and should have a shared vision and understanding of its unique role in addressing chronic disease prevention and management.

Traditionally, as reported by respondents, Extension has a strong history of providing evidence-based programs to individuals. As also suggested by respondents, Extension should be focusing on a systems approach to support individual (behavior) change in conjunction with environmental change to encourage healthy behaviors. This idea aligns with socio-ecological theory that postulates that behaviors are influenced by interpersonal, intrapersonal, organizational, communal, and policy factors. Socio-ecological theory also suggests that these influences are bidirectional. Individuals influence social networks, organizations, communities, and ultimately policies; the influence may also flow the other direction. In both cases, the relationships can be health promoting. Whereas public health work is currently adopting a trickle-down approach of working to influence policy, community, and organizations to impact health behaviors, Extension may be positioned to influence change from the bottom up. As suggested in the best summary quote shown earlier, Extension can “empower clients to be agents of change on matters related to policies, systems, and environments.” Empowering clients to be agents of change could be accomplished within traditional Extension programs and added to curricula. Evaluations might capture evidence of change, such as a nutrition class participant asking a corner store owner to carry more produce, a person with diabetes asking a restaurant to provide nutrition information, a citizen going to a school board to advocate for farm-to-school, or a client at a food pantry talking to a volunteer about his or her preferences and needs.

Equipped with assets, partnerships, community reach, and trust, Extension professionals are poised to take greater roles in universities, government, or communities toward health promotion efforts. The visioning effort described in this report illuminated the need to market the skills and assets of Extension professionals as collaborators for change with leaders of public health (e.g., Centers for Disease Control and Prevention), hospital organizations, and other entities at the state and national level so that its vision and niche are understood.

Extension professionals working in the area of Family and Consumers Sciences or Health Sciences should articulate a shared long-range outcome toward chronic disease prevention and management. Having a sense of what current Extension professionals see as strengths can help leaders align these perceived strengths with where they want to guide Extension. By its nature though, Extension is decentralized and is often not guided by national priorities. Although local trust and relevance are viewed as strengths, establishing a national shared vision will help Extension be successful in more competitive environments for public resources and grants. This vision will help to ensure continued growth and progress for the next 100 years.

### Summary

This paper describes the responses of Extension professionals to an open-ended question about the future role of the Cooperative Extension Service in chronic disease prevention and management. Although our sample might not have been representative of Extension professionals, the research intention was to qualitatively describe shared perspectives. More work will be needed to understand and communicate a shared vision. Dialogue and engagement with other program areas such as community development, agriculture and natural resources, and youth development will further build on this work and align with Extension's Health and Wellness Framework.

### References

- Albright, K. S. (2004). Environmental scanning: Radar for organizational success. *Information Management Journal*, 38(3), 38–45.
- Braun, B., Bruns, K., Cronk, L., Kirk Fox, L., Koukel, S., Le Menestrel, S., . . . Warren, T. (2014). *Cooperative Extension's National Framework for Health and Wellness*. Retrieved from <https://nifa.usda.gov/resource/national-framework-health-and-wellness>
- Bronfenbrenner, U. (1979). *Ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.
- Centers for Disease for Disease Control and Prevention. (2017). *Chronic disease overview*. Retrieved from <https://www.cdc.gov/chronicdisease/overview/index.htm>
- Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. Thousand Oaks, CA: Sage.
- Choo, C. W. (2001). *Information management for the intelligent organization: The art of scanning the environment* (3<sup>rd</sup> ed.). Medford, NJ: Information Today, Inc.
- Corbin, J. M., & Strauss, A. (1990). Grounded theory research: Procedures, canons, and evaluative criteria. *Qualitative Sociology*, 13(1), 3–21. doi:10.1007/BF00988593
- Denzin, N. K., & Lincoln, Y. S. (2011). Introduction: The discipline and practice of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (4<sup>th</sup> ed., pp. 1–21). Los Angeles, CA: Sage.

- Doll, R. (1985). *The value of preventive medicine*. London, England: Pitman.
- Flick, U. (2014). *An introduction to qualitative research* (5th ed.). Thousand Oaks, CA: Sage.
- Gerteis, J., Izrael, D., Deitz, D., LeRoy, L., Ricciardi, R., Miller, T., & Basu, J. (2014). *Multiple chronic conditions chartbook* (AHRQ Publications No, Q14-0038). Rockville, MD: Agency for Healthcare Research and Quality.
- McKenna, M., & Collins, J. (2010). Current issues and challenges in chronic disease control. In P. L. Remington, R. C. Brownson, & M. V. Wegner (Eds.), *Chronic disease epidemiology, prevention, and control* (3rd ed., pp. 1-26). Washington, DC: APHA Press.
- U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. *Healthy People 2020*. (2017). Retrieved from <https://www.healthypeople.gov/2020/About-Healthy-People/History-Development-Healthy-People-2020.htm>
- Ward, B. W., Schiller, J. S., & Goodman, R. A. (2014). Multiple chronic conditions among US adults: A 2012 update. *Preventing Chronic Disease, 11*. doi:10.5888/pcd11.130389

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