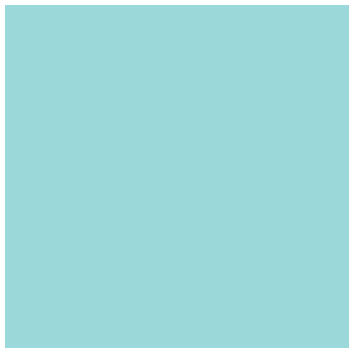
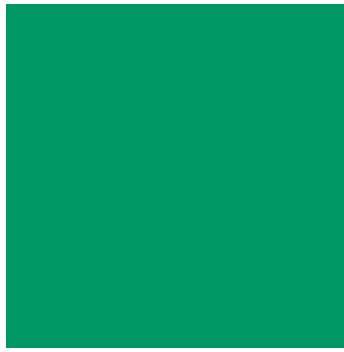


TEENS TAKE ON HEALTH

APRIL 2014



LISTENING TO TEENS: How We Can Help Youth Shape A Healthier Future



Acknowledgements

National 4-H Council (Council) thanks the many contributors who have made *Teens Take on Health* possible. We are especially appreciative of the financial support of Molina Healthcare (Molina) for this work. The prescience, vision, commitment and generosity of Dr. Martha Molina Bernadett and colleagues at Molina have been invaluable.

We also appreciate the expertise of Bonnie Braun, PhD and Virginia Brown, DrPH in authoring a scholarly report entitled, "A Study of Teens Take on Health Report", that provides the basis for this comprehensive report.

Council's partner at the National Institute for Food and Agriculture (NIFA) at U.S. Department of Agriculture (USDA) has collaborated with this effort throughout the process and we appreciate the time spent advising and promoting *Teens Take on Health*.

We acknowledge and value the contributions of the staff of Molina Healthcare in developing and hosting Teens Take on Health Town Hall events. We also thank the National 4-H Healthy Living Management Team, especially the Youth Representatives, and the faculty and staff from numerous land-grant universities in the Extension/4-H system who have been key to this initiative. These partners are:

Molina Healthcare:

Sindy Ausmer
Senior Advocate, Community Engagement
Molina Healthcare of California

Stephen Snider, Director of Community
Engagement
Molina Healthcare of Florida

Heidi McGlinnen
Director of Community Outreach
Molina Healthcare of Michigan

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Land-Grant Universities:

Arizona State University
Cornell University
Michigan State University*
New Mexico State University
North Carolina Agricultural & State University
Oklahoma State University
Rutgers University
Texas A&M University
The Ohio State University
University of California*
University of Florida*
University of Illinois
University of Maine
University of Maryland*
University of Missouri
University of Wisconsin
Utah State University*
Washington State University

* *Land-Grant Universities that hosted Teens Take on Health Town Hall events.*

Most important, we are grateful to the youth and families involved in the *Teens Take on Health* initiative. Their voices are helping shape a world where good health can be enjoyed by all.

Ultimately, the future of our country's health belongs to our teens. To ensure the brightest possible outlook, two years ago Molina Healthcare and 4-H embarked on a joint initiative, *Teens Take On Health: Solutions for a Healthy America*.

The goal of this initiative was to prepare teens to take ownership of their health, promote healthy living in their families and communities, and become health leaders as they grow into adulthood. Molina and 4-H worked together to encourage teens to think critically about health issues and create viable solutions to help them live balanced, healthy lives.

Using its experience providing government-sponsored programs for over 30 years, Molina brought a wealth of information about working with low-income and minority populations to this initiative. There are 2.1 million Americans across 11 states that are currently enrolled in Molina Medicaid plans – over 25% of them Hispanic, and many adolescents.

4-H's Healthy Living programs educate youth and inspire them to lead healthy lives that balance physical, emotional and social health. Through these programs, 4-H youth are learning not only how to make smart and healthy decisions for themselves, but also giving back to their communities so their friends and families can do the same.

4-H directed the *Teens Take on Health* initiative while Molina's engagement staff teamed with neighborhood schools and teen centers to ensure the participation of low-income youth in each phase of the campaign.

The *Teens Take On Health* initiative was implemented in three phases. Teens were asked to:

1. Describe their health concerns through a social media survey campaign
2. Compete to make the best original video demonstrating solutions to health issues
3. Team up in Town Hall Meetings to define the nation's most significant health issues and design bold new solutions to address their top health concerns

We used a powerful facilitation method called Liberating Structures to keep all participants successfully engaged in the Town Hall Meetings that took place in five states (California, Florida, Maryland, Michigan and Utah). Not only did teens get involved, they learned how to plan and run the meetings themselves.

It was a rewarding process, showing us that the health of America is in good hands with our teens. In fact, through this initiative, we learned that the ingredient needed more than any other in order for our teens to move forward successfully is better support from us through healthy living programs that offer solutions to the key health issues faced by youth today.

Molina and 4-H are committed to providing teens with the assistance and encouragement they need for all of us to enjoy a new generation of health in America.

Sincerely,



Martha Molina Bernadett, MD, MBA
Executive Vice President of Molina Healthcare



Jennifer Sirangelo
President and CEO, National 4-H Council

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Executive Summary

Joe* wishes his parents would stop smoking and be more active in their children's lives. *"Throughout my life it has been more about buying cigarettes than spending time with my sister and me. I have also seen my dad's health deteriorate because of his habitual smoking."*

Erika* is worried that many people can't find healthy foods where they live. *"Not a lot of people know what a food desert is," she said. "After learning about the problem, I am suggesting community gardens as part of the solution. I know they are not the only answer, but they can definitely help."*

And Jose* is tired all the time. He wishes his family would eat dinner earlier so he could get to bed. *"I don't even get close to eight hours of sleep,"* he said. Lack of sleep together with the pressures of school and family leave Jose and his peers feeling anxious and depressed.

Everyone is paying attention to the Affordable Care Act and its impact on healthcare today. But who is paying attention to the future of healthcare? Our teens. And what they think and do now may have more of an impact on future costs than anything else. It's time we listened and inspired them to be part of the solution for a healthier America, not part of the problem.

Who knew that our teens craved home-cooked meals and wanted to go to bed earlier? Who knew teens were willing to limit video games or set family exercise schedules? Who knew they wanted more personal time and stress relief? Now we know. And now it's time to do something meaningful to help teens make the changes they yearn for.

Stress, healthcare, lack of sleep, obesity and chronic illness—teens today are worried about their health. They are worried, but they also have ideas and solutions. This is the exciting and inspiring conclusion of the newly released *Teens Take On Health* report. Launched in 2012 by National 4-H Council and Molina Healthcare, *Teens Take On Health* is a youth-led initiative to engage young people across the country in an interactive dialogue about health.

The goal: to hear directly from teens about the health issues that matter to them—and then use that information to create meaningful changes teens can act on. What emerged was a picture of teens ready to make real lifestyle changes to address their own health—as well as their families' and communities'.

**Not real names*

You may be surprised by what teens are saying, and you'll definitely be inspired:

"Being a part of a large family (four children and two working parents), sometimes there is medicine and procedures that are still not affordable—even though my parents both have health insurance—because there are so many kids in my family."

"Fast lives, [we are] too rushed, forced to eat fast food because of a busy schedule."

"We need to promote stress relief and personal time."

"We worry about my parents' and grandparents' diabetes and the potential of my younger family members getting it. A solution could be diabetes awareness classes and classes on how to cook for your diabetes."



Teens Speak Out: Videos, Social Media, Town Halls

Teens had the chance to voice their concerns via the tools and technology they know best: through videos and social media as well as face-to-face town hall conversations with peers. Nearly 1,000 teens from diverse backgrounds participated in one or more of these research activities. The research was conducted in three phases from late 2012 through early 2014. (See page 8 for specifics on each phase.)

WHAT TEENS SAID

Obesity Is a Top Concern: Obesity is a critical issue facing society, and a top concern with teens as well. Teens clearly saw obesity as an urgent personal health concern as well as a public health issue. They knew that they and their families were eating less healthy food, not drinking enough water and were not active enough to maintain a healthy weight. And they understood the connection between improved food/nutrition and increased physical activity in preventing or eliminating obesity.

Sleep, Stress and Mental Health Are Real Issues: Teens reported they weren't getting enough sleep, needed help managing and reducing stress, and were concerned about mental health needs in their communities. Teens across all economic and demographic levels saw sleep, stress and mental health as vital components of "health"—highlighting the growing urgency of these issues.

Healthcare Access and Cost Matters: Adults aren't the only ones thinking about healthcare access and cost. Teens were sophisticated enough to recognize that they and their families needed better access to healthcare, that healthcare costs are too high and that health insurance is important. Critically, teens also recognized that they needed family, community and public policy support to live a healthy lifestyle.

Health Problems Are Perpetuated at Every Level: The high cost of healthy food, and the abundance of preservatives, chemicals and other additives in processed food—teens saw these bigger issues as clear pieces of the health puzzle and barriers to healthy living. They understood that health problems and solutions exist at multiple levels: personal, family, organizational, community and policy. Their suggestions for solutions ranged from changes in their personal behavior to changes in public policy.



Teen Solutions

Teens did more than just identify their top concerns. They had concrete and thoughtful suggestions based on their own experiences. And the majority clearly saw that they themselves had a role to play in leading change—whether that meant changing a personal behavior such as drinking less soda, or encouraging their community to open a free fitness facility.

Personal and Family Action: *“I would like my family to be more active every day. I have learned in school for years how important it is to exercise every day but it’s hard when the people you spend the most time with do not make it an important activity.”*

Teens knew they had to take personal responsibility for their health by eating better and being active, but they also wanted their families to be involved. They suggested ways to involve family by grocery shopping together and doing physical activities as a group through family fitness nights or “play days.”

Community and School Action: *“Have workout stations placed throughout the community, in parks, on trails, by stores, etc... They are free of charge and anyone can use them. These are provided by the government.”*

Teens wanted schools and communities to take real steps to help their families live healthy lives. They suggested creating community/school gardens, expanding farmers markets and offering healthy living classes. And they had ideas about ways to engage entire communities through activities such as local food drives, designing a fair to raise awareness about community health and opening facilities offering healthy living programs for all ages. For schools, they suggested replacing typical junk food vending machines with ones that offer healthy options.

Public Policy Action: *“Don’t tax whole foods and fresh produce. This will lower the cost and encourage people to eat healthier.”*

Teens had clear concerns about the lack of availability and the cost of healthy food. They were worried that families that **do** want to eat well or be active are limited by things beyond their personal choices. Many suggested removing or reducing taxes and subsidizing healthy food. They also proposed limiting the sale of processed and fast foods near schools; changing state and federal laws regarding food coloring, chemicals, fats, additives and growth hormones; increasing the legal age limit for purchasing energy drinks; requiring large businesses to provide monetary incentives for good health practices; and

Key Findings

Teens spoke clearly and identified their top concerns:

- **Obesity** is an urgent personal and family concern—the number one issue for teens.
- Teens are worried about **stress, lack of sleep and mental health**.
- Teens are anxious that their **families don't have the healthcare they need** to stay healthy.
- **Improving health** will take more than personal lifestyle changes—it will require **changes at the family, community and policy levels**.

permitting Electronic Benefit Transfer (EBT) cards to be used to purchase prepared salads.

True to their generation, teens also saw the value of using technology as a tool to improve health. Ideas included creating programs or apps to encourage and/or track physical activity, making exercise more fun through gaming and monitoring food intake.

Teens Are Ready to Take on Health!

The results from this research tell us one thing: we have a chance today to harness the ideas, energy and enthusiasm of this generation. We can work with teens to create truly effective and successful healthy living programs that are engaging, fun and relevant—for all youth. Teens are eager to take steps toward healthy living, they are ready to engage their families and their community, and they are willing to advocate for public policy changes.

Even more compelling and exciting is that teens understand that there won't be quick fixes in the journey toward better health. They see the complexity of health issues *and* they realize that solutions must come from all sectors. They are ready to do their part to actively create a dynamic culture of health that involves families, communities, and even government.

Next Steps: Turning Research Into Action

How can National 4-H Council and Molina Healthcare act on the issues and solutions offered by these teens? It's clear that the teens' responses and concerns echo a conversation that is happening across the country—in living rooms, schoolrooms and the hallways of government. The time is right to expand public outreach and education initiatives that emphasize healthy living in general, and youth health in particular.

What's more, it's evident that youth see themselves as part of the solution. **Teens have spoken clearly and the door is open:** They are looking for opportunities to improve their health and well-being.

What happens next will depend on the broad participation and support of many different partners to help create the healthy living programs that teens are demanding. In fact, to be successful, it is clear that multiple partners **must** be involved in healthy living programs for youth, including state and local 4-H staff, youth and volunteers.



Call to Action

National 4-H Council and Molina Healthcare have pledged to continue to apply and expand the following principles to their existing healthy living programs. Together, we call on youth development organizations and all organizations that are in a position to engage and influence youth—such as schools and community programs—to do so as well.

National 4-H Council's objectives are to:

- Develop and enhance programs around mental and emotional health, including anti-bullying and stress management programs
- Provide leadership opportunities to help teens use the power of the youth voice
- Model and reinforce healthy behaviors at youth events, making sure they include nutritious food, physical activity and early bedtimes during weekday programming

Molina Healthcare will focus on three specific areas as a result of these findings that will contribute to its mission of improving the health of traditionally underserved communities:

- Engage teens to develop health education and social media materials that inspire their peers toward healthier behaviors
- Give greater emphasis to socio-emotional issues in work with adolescents, especially sleep and stress
- Develop train-the-trainer materials on positive youth development to incorporate in Molina's existing community engagement work

The *Teens Take On Health* initiative has given National 4-H Council and Molina Healthcare new resolve to deepen efforts to improve the health of today's youth. We'll turn teen ideas into actions by giving them a forum to lead the way. And we will collaborate and share our expertise with each other in order to create a robust *Teens Take On Health* initiative that will shape a brighter and healthier future for all youth.

Study Details

Teen responses were gathered from the following activities conducted from late 2012 through early 2014:

Phase One: Social Media Survey: *183 youths*

Teens answered a series of three survey questions that were posted on Facebook. They were asked what they would change about their parents' health, how social media and technology affect health, and what could be done to improve health in their local communities. Teens who did not have access to Facebook were given the option to complete an online survey.

Phase Two: National Video Contest: *82 submissions*

Teens were invited to submit a 90-second video describing a health challenge and a proposed solution. Eighty-two videos were submitted through an online portal. Five finalists received \$500 each, and the grand prizewinner received an all-expense paid trip to New York City with their family.

Phase Three: Town Hall Conversations: *539 youths in five states; 81 youths at National 4-H Youth Summit on Healthy Living*

State 4-H programs in California, Florida, Maryland, Michigan and Utah took the lead in planning town hall meetings. The states were strategically selected in locations where Molina Healthcare serves low-income families. Additional youth were engaged at the National 4-H Youth Health Summit. The town hall events successfully reached both minority youth and teens from low-income households. Over half of the attendees were identified as racial minorities and more than half were from low-income homes.

National 4-H Council and Molina Healthcare also conducted a scholarly review of health research, policies and programs that complemented the teen views expressed in the project's research. This literature review provided a context for interpreting the *Teens Take On Health* report. Link to full report: www.4-H.org/teenstakeonhealth.

Introduction

Teens Take on Health

In 2012, National 4-H Council (Council) joined forces with Molina Healthcare (Molina) to create *Teens Take on Health*, working to create youth-led solutions for the nation's health issues. Council is the private sector, non-profit partner of the Cooperative Extension System and 4-H National Headquarters at the U.S. Department of Agriculture (USDA).

4-H programs are implemented by the nation's land-grant universities, annually reaching more than six million youth between the ages of five and 18. Molina provides quality health services to low-income and vulnerable individuals on government programs serving over two million members in 10 states, 80 percent of whom are under the age of 21.

Teens Take on Health was designed to empower youth to tackle health issues. The overall goal of this important project is to transform the national dialogue on health and healthcare by engaging young people to create strategies and solutions, resulting in improved health outcomes for youth, and reduced healthcare costs for the next generation.

While there are numerous programs on topics such as nutrition and physical activity, bullying, mental health and substance abuse cessation, Council and Molina wanted to **listen** to youth perspectives on health and healthcare in order to develop innovative, youth-led solutions to achieve the following objectives:

- Engage** teens in reframing the national dialogue about health and healthcare for the next generation;
- Bring** national, state, and local visibility to 4-H as a leader in providing healthy living programs for youth and to Molina as a trusted partner that designs and delivers effective healthcare solutions through deep stakeholder engagement with low-income youth and their families;
- Expand and enhance** 4-H Healthy Living programs that reach low-income, high-need youth, families, and communities; and
- Position** 4-H for new and expanded public and private partnerships that could support and expand 4-H Healthy Living programs.

Engaging Teens in the Dialogue

Data Collection

Data were collected from 885 youth in late 2012 through early 2014 via three techniques:

1. Social media campaign using Facebook and an online survey;
2. National video contest; and
3. Town Hall conversations targeting youth in five states and at the National Youth Summit for Healthy Living.

These strategies were chosen because they are dynamic and relevant to the teen experience.

Partner organizations serving low-income teens (including schools, teen centers, Boys & Girls Clubs, etc.) were invited to engage in all three phases, ensuring that diverse teens were included.

See *A - Data Sources and Analysis* for a full discussion of the data sources and collection methodologies in the three phases.

Phase One: Social Media Survey: 183 youths

Teens answered a series of three survey questions posted on Facebook. They were asked about changes about their parents' health, the effects of social media and technology on health, and ideas to improve health in their local communities. Teens who did not have access to Facebook were given the option to complete an online survey.

Phase Two: National Video Contest: 82 submissions

Teens were invited to submit a 90-second video describing a health challenge and a proposed solution. Eighty-two videos were submitted through an online portal. Five finalists received \$500 each, and the grand prizewinner received an all-expense paid trip to New York City with family members.

Phase Three - Town Hall events: 539 youths in five states; 81 youths at National Youth Summit on Healthy Living

State 4-H programs in California, Florida, Maryland, Michigan and Utah took the lead in planning Town Hall meetings. The states were strategically selected in locations where Molina Healthcare serves low-income families. Council modeled the Town Halls on its national conversation in observance of 4-H's 100th birthday. Molina and Council also used the successful *Engaging Youth, Serving Communities* 4-H program with youth-facilitated public issues forums.

For the Town Halls, Molina engaged Keith McCandless to train teen facilitators to use "Liberating Structures," a process to gather input and move peers to action (www.liberatingstructures.com). Danielle Newman of Maine, youth member of the National 4-H Healthy Living Management Team, co-facilitated. Youth-adult teams developed plans to conduct Town Halls. Each state program received a grant to support the activities, which included funding for an intern to support the Town Hall program. The Town Hall events were customized to match local needs, audiences and resources.

Through these events, 620 teens participated in total, 81 of whom were attendees of the National Youth Summit on Healthy Living. The Town Hall events successfully reached both minority youth and teens from low-income households. Over half of the attendees were identified as racial minorities and more than half were from low-income homes.

The *Teens Take on Health* initiative provided a unique opportunity for Council and Molina to develop an innovative partnership with exciting benefits. By working together, Council accessed Molina's expertise in reaching low-income families and youth, especially Hispanic families. Similarly, youth in families served by Molina benefited from the positive youth development model integral to successful 4-H programming.

Data Analysis

An evaluation team of Bonnie Braun PhD and Virginia Brown, DrPH, University of Maryland Extension, was selected to prepare a scholarly analysis of the initiative. Information about the co-authors is found in Appendix C. They were joined by a School of Public Health undergraduate student intern, Manisha Sarkar.

Their report presents the findings of a review of literature; a qualitative, thematic analysis; and positions the project in the broader context of research and scholarship on health and positive youth development. From their analysis, the authors also produced a set of recommendations with implications for practice and policy. A discussion of the data sources and data analysis can be found in Appendix A. The full research report can be found at: www.4-H.org/teenstakeonhealth

Participant Demographics:

The youth who participated are a representative sample of U.S. teens. While their ideas are valid, they do not necessarily represent ideas of other teens. Complete demographic data on participating teens were not collected.

Unfortunately, an absolute total number of participants across all three data sources is impossible to compile. For example, there is no data about the number of teens who participated in production of videos. However, a conservative estimate is that at least two youth per video were involved. Therefore, the final participant count for the three data input activities is estimated as at least 967 youth.

Gender:

The Town Hall meeting reports provided data on number, gender and racial/ethnic distribution of participating youth. Of the 620 youth who were reported to have attended Town Hall meetings, gender and racial data were provided for all youth except for the California report which was missing gender data. Of the 489 youth with gender information, 33 percent were male and 64 percent were female.

Race/Ethnicity:

The initiative was successful in reaching its goal of engaging youth of racial diversity in the Town Hall meetings. Racial data revealed a distribution of more than half of the youth identified as a racial or ethnic minority (53 percent) and slightly less than half (47 percent) as white. See Table 1 below. This distribution exceeds the national U.S. population distribution, which indicates that minorities represented 25 percent of the population (Census, 2011). Teens attending the Town Hall meetings were slightly over twice that percentage.

Income:

The initiative was also successful in reaching its second goal: to engage youth from low-income households. In 2012, Black and Hispanic households had incomes below the median U.S. income level. (DeNavas-Walk, et al., 2013).

Town Hall reports identified percentages of low-income ranging from a low of 16 percent in one Town Hall meeting to a high of 98 percent and a mean of 54 percent. The U.S. income data, combined with the Town Hall data, provides evidence that more than half of the teens were from low-income households. Though the available data is not definitive, it is reasonable to conclude that the goal was achieved.

Table 1. Summary of Town Hall Teen Participant Characteristics

Location	Youth	Male/ Female	Racial White/ Minority #	Low Income Estimate***
CA	131	*	28/103	85%
FL	89	19/70	29/60	60%
MD- Campus	51	19/32	29/22	16%
MD-Temple Hills	35	25/10	00/35	98%
MI	21	4/17	03/18	25%
UT	212	77/135	154/58	39%
Summit	81	20/61	51/30	**
Total	620	164/324 %34/66	294/326 % 47/53	-----

*This cell is blank due to the lack of complete gender data in the state report. Therefore, the total for gender does not match the number of youth.

**No estimate provided.

***Due to the lack of information about how this percentage was determined and the likely variability in how this estimate was derived, no fully defensible conclusions can be drawn.

Listening to Teen Voices

Using the three data sources, the evaluators documented four key themes that mattered to teens and ideas for action. They then assessed the extent to which these themes and related ideas for action were found in all data sources or were unique to a particular source.

Obesity

Obesity was the primary focus of teens. Obesity was mentioned at all Town Hall meetings, including the summit, and on videos. The responses to the online survey did not explicitly mention obesity. Teens also focused on other chronic diseases, often related to obesity, while the videos addressed the related issues of poverty and hunger. Two themes, found in all reports, described the teens' primary responses to the issue of obesity and associated risks:

1. Improved food and nutrition.
2. Increased physical activity.

Other themes were reported in some or one of the reports. Across all three types of reports, videos, survey and Town Hall meetings, teens spoke almost equally about the importance of food and nutrition and physical activity. All mentioned eating healthier food and understood that physical activity is important.

They knew they and their families were not consuming enough healthy food and water, and that they were not active enough to prevent or reduce obesity.

Teens had ideas for addressing obesity in all four systems levels. Teens proposed:

- Personal Changes:** Many teens suggested ways to take personal responsibility for their health. Actions emphasized eating healthier foods, being more physically active and becoming involved in their community.
- Family Changes:** Teens had ideas of actions their families could take to prevent or reduce the impact of obesity. These ideas included grocery shopping together and undertaking physical activities together through family fitness nights or play days.
- School and Community Changes:** Teens moved beyond their personal and family boundaries by suggesting actions within communities, including schools. They suggested improvements to school lunches and vending machines; increasing school and community gardens; expanding farmers markets and community activity spaces; and offering classes and programs on the topics of healthy living, including teen confidence and self-efficacy.

Giving back to the community as a whole—participating in activities which could benefit more than just an individual person or family was shown in the videos. The videos focused on community communication and participation and involving the whole town or community in an activity benefitting the entire community. Examples of community participation included encouraging hunters to donate venison to the hungry, conducting community food drives in which everyone could participate and designing a fair for the whole community to raise awareness about community health.

-
- **Public Policy Changes:** Advocating for policy and change was explicitly and implicitly mentioned in most Town Hall reports.

Given that teens thought healthy foods were too costly, they advised removing taxes and subsidizing healthy food. They also suggested limiting the sale of processed and fast foods near schools; changing state and federal laws including food coloring, chemicals, fats and additives; monitoring growth hormones; regulating the age for purchasing energy drinks; requiring large businesses to provide monetary incentives for good health practices and permitting EBT cards to be used to purchase prepared salads.

One set of teens encouraged policies that require paid passes to ride the elevator (like carpool lanes); establish food reward cards that reward health food purchases with points redeemable for healthy foods; and create a bike rental plan for youth and adults and 4-H Bike Clubs.

Another group suggested a statewide campaign promoting healthy living and a five-week statewide exercise challenge involving support groups in each community while one offered a “Couch to 5K” approach to physical activity. The same group mentioned working to achieve the *Healthy People 2020* fruit and vegetable consumption goal through an “Eat a Rainbow” initiative. Still another wanted to eliminate all obesity-related deaths in the U.S.

- **Use of Technology:** Technology as a tool emerged as a subtheme related to lifestyle changes. The social media survey specifically asked for ideas that use electronic technology to improve health.

Ideas focused on programs or apps that encourage activity through gaming; monitoring food intake; tracking physical activity and/or showing consequences of health and wellness decisions.

Teens at two Town Hall meeting had several suggestions for technologies. They suggested inventions such as timers on electronic devices and websites; movie theatres with treadmills or stationary bikes; and a publically-owned television network dedicated to healthy living programming.

Sleep, Stress and Mental Health

Sleep as a concern arose in two state Town Hall meetings and was tied to stress. Teens reported not sleeping enough, partially because of stress. Stress also arose in two Town Hall meetings, in the videos and as an issue for parents in the online survey. Two state reports explicitly mentioned mental health.

Teens at Town Hall meetings had a few personal action ideas for better sleep—earlier dinner hours, supporting other teens, playing music, going to bed earlier, finding better ways to relieve stress and taking naps. They knew that stress reduction was important for themselves and their families and that mental health problems affected individuals, families and communities.

However, they did not have many ideas on how to address stress. Some of the videos addressed stress and the need to communicate with others and be supportive when stress is overwhelming.

Regarding mental health, teens' ideas included increasing access to care and services, coordinating social services for the homeless and mentally ill, expanding awareness of mental health, reducing bullying and improving self-efficacy and self-worth through classes and programs. Some suggested better integration of services in prisons.

Health Care Access and Cost

Teens mentioned health care, including health insurance, cost and access in several Town Hall reports. Teens who responded to the social media survey questions expressed similar concerns. Teens had few concrete ideas to improve access and manage costs and were instead focused on the need.

Personal, Family, Community and Public Policy Action

Teens at Town Hall meetings and in videos understood that health is determined at multiple systems levels—personal, family, organizational, community and policy. Across all reports, teens had multiple ideas, including public policy changes, to improve personal health behavior and that of their families and communities.

Bold Ideas for Change

Participants in the Town Hall meetings were asked to ... *include one big bold idea for change that may seem audacious in changing our health care system.* All Town Hall reports included their bold ideas; two provided a list rather than one idea. The ideas are shown in Table 2.

Table 2. Teens Take on Health Town Hall Meetings Bold Ideas Location and Bold Ideas

CA	<ul style="list-style-type: none"> Eliminate fast food restaurants altogether and/or make “junk” food illegal everywhere in the world.
FL	<ul style="list-style-type: none"> Opening a gym/smoothie shop where people can come to exercise and then get a healthy smoothie or snack
MD-Campus	<ul style="list-style-type: none"> Everyone in the community outside playing and exercising: Get people to come outside. Make the younger generation go outside more: Make better and cooler parks Get my community to start eating and living healthier Less taxes and become a less obese state Have fruits and vegetables cost less than other foods, to encourage people to buy them: Eliminate taxes on produce Cure cancer: Acquire a huge grant and hire the top researchers to work on the project Every community have a 1-2 acre community garden where citizens can plant fruits and vegetables that everyone can take home: The local government can donate the land Cure AIDS/HIV: Get Bill Gates to give a huge grant to the AIDS foundation Make MD the first state to require citizens to have a 6-pack or pay a fine Eliminate all obesity related deaths in the US: Eliminate fast food restaurants No one has an obesity problem: Reduce the amount of unhealthy foods sold in stores Everyone in the community to work out and be fit in the community: On every first of the month, we play sports Everyone to be at a healthy weight for their body type: Get people eating better and exercising more; have smaller proportions and more fruit and vegetables.
MD-Temple	<ul style="list-style-type: none"> Everyone should have free health care
MI	<ul style="list-style-type: none"> Free facilities for all ages that offer free programs. Find groups of abandoned buildings to tear down for the facilities to be placed.
UT	<ul style="list-style-type: none"> Invent a program or get companies such as Facebook and Apple to put timers on electronics, devices, and websites. After a certain amount of time the TV, iPad, website, and video gaming systems will shut off. The program will give a friendly message to the user such as “now it is time to get up and move!” or “it is important to exercise every day” to encourage healthy living. Invent running shoes that determine the amount of cell phone data you get. The more active you are the more data you get. When you’re inactive, you go without cell phone service. Get rid of typical vending machines in schools, and replace them with vending machines that offer healthy options such as a bag of carrot sticks. Invent a system that connects your treadmill to your TV or computer. You can only use the device when you’ve exercised for a certain amount of time each day. If you exercise less, the device/TV will shut off earlier. Have Barbie dolls and mannequins be made in <i>real</i> sizes. Eating disorders are prominent, and expectations are set too high for young girls.
SUMMIT	<ul style="list-style-type: none"> Having free health check-ups (every 6 months) for all section 8 elementary, middle, and high school students. Start by implementing free clinics in section 8 housing areas.

The evaluators were also asked to assess if minority youth reported different themes. By coordinating the data and the themes from across the three sources, they concluded that there were no discernible thematic differences among youth based on race/ethnicity.

Grounding the Work in Research

For *Teens Take on Health*, the literature review serves as context for interpreting the results of multiple teen health-oriented learning experiences conducted as part of *Teens Take on Health*. The literature can both help explain results of youth learning experiences and provide a rationale for future learning experiences. The full literature review is included in Appendix B.

Key themes were identified in the existing literature. They include:

Health: Health is both a resource and a dynamic state of physical, mental and social well-being which affect daily living of youth. Teens' decisions today may influence their health for the rest of their lives.

Youth Perceptions of Health: Among diverse youth, there is agreement that health is multidimensional—mental, physical, social—and impacted by both personal behaviors and influence of family and community. Youth report they are concerned for themselves and for their families, schools and communities as a whole.

Health Equity, Disparity and Social Determinants of Health: Health is not just a matter of personal inheritance and behavior, but rather, health is altered by social and physical environments where teens live, learn and play. When those environments are negative, opportunities for positive health status are lessened. When those environments are positive, opportunities for positive health status are enhanced. One of the most influential environments and determinants of health is the family.

Health Literacy: Among U.S. adults, health literacy is low. Health disparities among teens often exist with low levels of health literacy—the ability to understand and act on health information and to access health services and programs. Health literacy goes beyond individuals to include families, communities and public policies that help or hinder health understanding and positive action. High levels of health literacy reduce health care costs and are needed for positive health outcomes.

Health and Youth Empowerment: To be empowered is to have confidence to act and to have a sense of control. Youth gain empowerment through learning experiences that develop their understanding and capabilities to live healthfully. Youth empowerment is one component of youth development. Empowered youth can make a difference on matters of health and healthy living when they become civically engaged.

Health and Youth Development: Youth development puts young people on the path to become productive, healthy citizens as they gain skills and knowledge. Positive youth development leads to physical, emotional and social well-being. A 2013 study of 4-H programs found that over time 4-H youth empowerment and development programs result in youth excelling beyond their non-4-H peers in the contributions they make to their communities, civic activity, and healthy lifestyle choices.

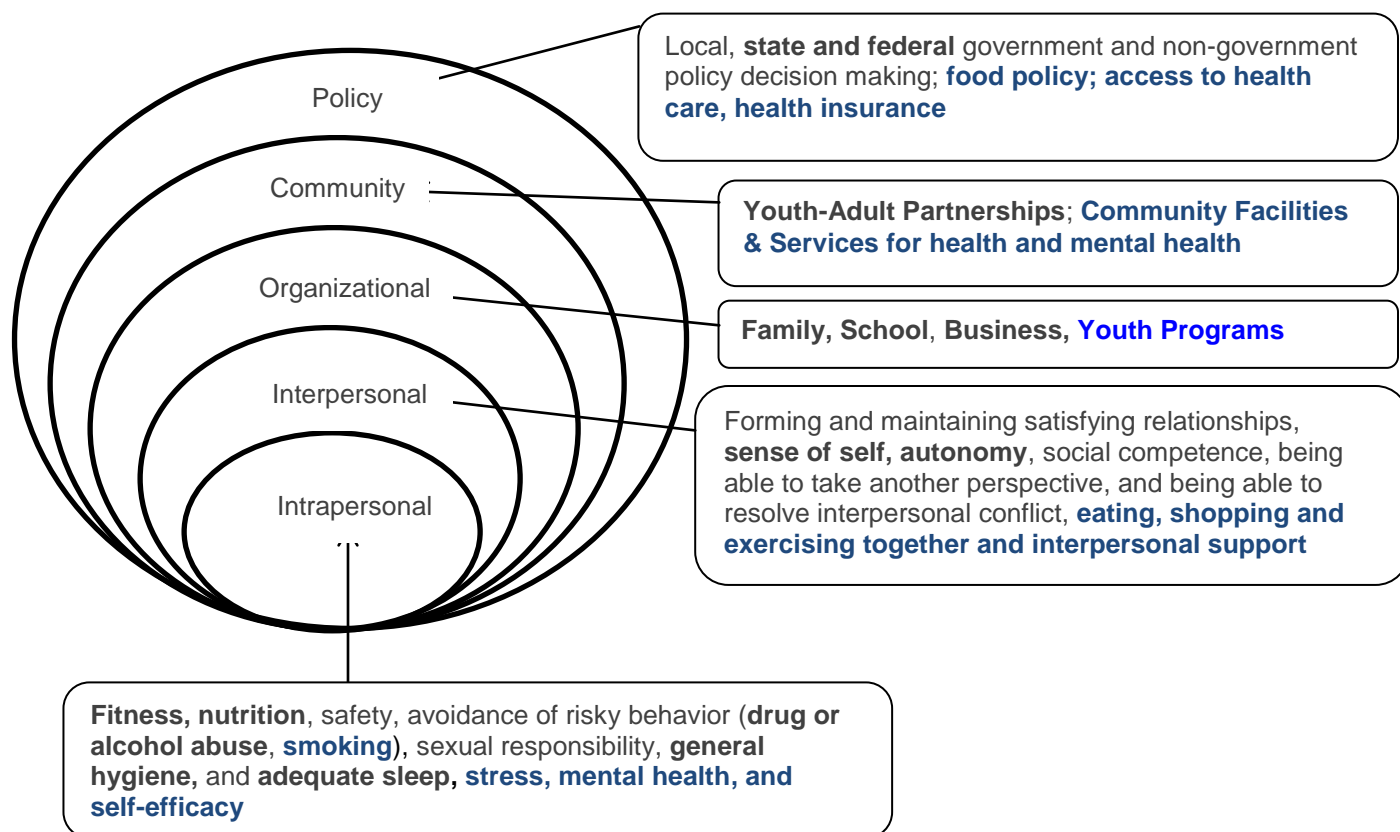
Systems Approach to Youth Health Development: A systems approach recognizes that humans live in and are exposed to multiple environments and situations that may affect their behavior and beliefs and ultimately, their health. An understanding of these systems can be used to create positive youth development experiences. An appropriate organizing framework, backed by research, is the *Social Ecological Model* shown in the review of literature.

Linking the Work to Big Ideas

If the teens who participated in the health-focused opportunities offered by Molina and Council are representative of other youth, they are ready to *take on health*—their own and that of their families and communities. They have many action ideas that could be harnessed in a *Teens Take on Health Initiative* grounded in youth health, development and empowerment.

A visual summary of the proposed actions embedded in the National 4-H Healthy Living Social Ecological Model, is shown in Figure 1 below. The visual highlights the ecological approach that the teens identified. Items in the model and addressed by the teens are **bolded**. Additional topics suggested by the teens and not currently in the 4-H model are shown in **blue**.

Figure 1. National 4-H Healthy Living Social Ecological Model and Teen Suggestions for action



The data also suggest that teens are interested in tackling the national policy priorities of *Healthy People 2020*. Teen interests align with the *Nutrition, Physical Activity and Obesity Indicators of Health*. They are interested in the *Nutrition and Weight Status* objectives in general and the specific ones associated with *Healthy Food Access; Weight Status; Food and Nutrient Consumption* and to some extent, *Food Insecurity*.

The analysis also provided evidence that these teens agree with the *Strategic Directions and Strategic Priorities of the National Prevention Strategy*. Their ideas for actions are represented in all four strategic directions: *Healthy and Safe Community Environments; Clinical and Community Preventive Services; Empowered People; and Elimination of Health Disparities*. They also agree with the seven priorities of: *Tobacco Free Living; Preventing Drug Abuse and Excessive Alcohol Use; Healthy Eating; Active Living; Injury and Violence Free Living; Reproductive and Sexual Health; and Mental and Emotional Well-Being*.

Teens also identified mental health as an issue—an issue of increasing importance in the U.S. Mental and physical health are intertwined. Longitudinal research published in 2014 found that children who experienced bullying over time experienced deteriorating mental and physical health evidenced by depressive symptoms and lower self-worth (Peskin, et al., 2014). A 2013 White House conference on mental health and illnesses featured the launch of the *Creating Community Solutions*, a way of holding conversations using free materials available at: www.creatingcommunitysolutions.org.

This year, 2014, is an opportune time to expand an emphasis on health in general and on youth health in particular. The nation's Cooperative Extension System will celebrate its centennial of passage of the federal Smith-Lever Act that launched the "extension" model. Likely, Extension will embrace a new strategic framework for health and wellness. *Teens Take on Health* can help shape that framework.

Call to Action

The results from this research tell us something important: We have a chance today to harness the ideas, energy and enthusiasm of this generation. We can work with teens to create truly effective and successful healthy living programs that are engaging, fun and relevant—for all youth. Teens are eager to take steps toward healthy living, they are ready to engage their families and their community, and they are willing to advocate for public policy changes.

Even more compelling and exciting is that teens understand that there will not be quick fixes in the journey toward better health. They see the complexity of health issues *and* that solutions must come from all sectors. They are ready to do their part to actively create a dynamic culture of health that involves families, communities and even government.

How will Council and Molina act on the issues and solutions offered by these teens? It is clear that the teens' responses and concerns echo a conversation that is happening across the country—in living rooms, schoolrooms and the hallways of government. The time is right to expand public outreach and education initiatives that emphasize healthy living in general, and youth health in particular.

What's more, it is evident that youth see themselves as part of the solution. Teens have spoken clearly and the door is open: They are looking for opportunities.

What happens next will depend on the broad participation and support of many different partners to help create the healthy living programs that teens are demanding. To be successful, multiple partners **must** be involved in healthy living programs for youth, including state and local 4-H staff, youth and volunteers.

Council is committed to these critical action steps:

- Develop and enhance** programs around mental and emotional health, including anti-bullying and stress management programs.
- Provide** leadership opportunities to help teens use the power of the youth voice.
- Model and reinforce** healthy behaviors: when planning youth events include nutritious food, physical activity, and early bedtimes during weekday programming.

Molina will also begin to take action and has proposed three specific areas of focus:

- Engage** teens in developing Molina's health education materials.
- Give** greater emphasis to socio-emotional issues in our work with adolescents, especially sleep and stress.
- Engage** 4-H to develop train-the-trainer material on positive youth development to incorporate in Molina's existing community engagement work.

The *Teens Take on Health* initiative has given Council and Molina new resolve to deepen efforts to improve the health of today's youth. We will turn teen ideas into actions by giving them a forum to lead the way. And we will collaborate and share our expertise with each other in order to create a robust *Teens Take on Health* initiative that will shape a brighter and healthier future for all youth. Together, we call on youth organizations, schools, businesses and civic leaders to join us in this important work.

Appendix A

Data Sources and Data Analysis

Prepared by Dr. Bonnie Braun and Dr. Virginia Brown

National 4-H Council provided three sources of data to the evaluation team for analysis. A thematic analysis was done on two of these of the sources: 1) A Survey; 2) Teen Videos; and 3) Town Hall Reports. The survey, was pre-analyzed by the National 4-H Council. Findings were combined for conclusions and recommendations.

Methods of Analysis

Quantitative analysis of demographic data from the Town Hall meetings and qualitative analysis of the videos and Town Hall meeting reports were conducted by members of the team. The team compared findings from these sources with the summarized survey.

For a theme to be determined, patterns were identified from data provided by the teen participants. Themes were identified in two categories—those present in all sources and those present in two or one. Word repetition and similarity in descriptions of ideas were used to identify themes. In qualitative methodology, it is accepted that a theme does not have to be present among *all* participants, but there should be multiple pieces of data across the sample (Braun & Clarke, 2006). Table 3 contains the data analysis plan.

Table 3. Data Analysis Plan

Initial Patterns (IP)

Create initial coding of themes using:

- a) Videos;
- b) State reports from Town Hall meetings; and
- c) Survey summary.

Combine and Catalog (CC)

Stage 1-CC: Share themes with evaluation team rater

Stage 2-CC: Reach inter-rater reliability

Stage 3-CC: Develop final coding

Build Argument (BA)

Stage 1-BA: Draw conclusions from theme analysis

Stage 2-BA: Integrate related literature with conclusions

Stage 2-BA: Develop recommendations for action based on literature and themes

For both the videos and Town Hall reports, one member of the team did the first round of analysis. One or two members did the verification. After the lead evaluator cataloged patterns then converted patterns into themes, the themes were shared with a team rater. The coder and rater(s) conferred to come to consensus on themes. The team leader wrote conclusions and recommendations. Another team member determined the validity of the conclusions and recommendations based on the thematic analyses. In this way both depth and breadth of analysis of themes were achieved (Lincoln & Guba, 1985).

National 4-H Council and Molina Social Media Campaign Survey

This pre-analyzed dataset was provided to the evaluation team as a summary page of categorized responses of **183 youth** to three questions included in the survey. The pre-prepared analysis was used by the team to compare to the other two sources of data for congruence or differences. The survey is found in Table 4.

Goal: Begin to gather preliminary input from youth to define health for self, family, and community, and express their vision for a healthier future.

Results: To achieve this goal we identified two weeks to promote 4-H Healthy Living work, the Molina Healthcare partnership asked youth provocative health questions to elicit their responses. Questions were asked via the primary 4-H social media channels as well as through an online survey, which was promoted at National 4-H Congress. National 4-H Council received **185 responses** through the online survey and experienced the following level of engagement via our social media channels:

Table 4. Social Media Survey Molina Healthcare November, 2012

Date and Item	Facebook				Twitter	
	Impressions	Comments	Likes	Shares	Retweets	Replies
General Healthy Living Post:						
Molina partnership (with photo) 12-Nov	21,684	14	434	21	4	0
4-H North Carolina PSA video 12-Nov	11,684	5	100	22	5	0
Healthy living 4-H trivia 22-Nov	65,344	268	340	12	0	0
Question:						
1. What is one thing you wish your parents would do to live healthier lives? 15-Nov	61,118	40	122	44	1	0
2. How would you use technology to improve the health of your family and community 19-Nov	60,774	7	177	22	10	1
3. What healthcare challenges do you and your family face? Give us your ideas for solution to those challenges. 21-Nov	53,100	16	88	12	2	0

Three emerging themes from the responses:

1. What is one thing you wish your parents would do to live healthier lives? (225 responses)
 - More exercise
 - Improvement in health and nutrition
 - Quit smoking
 - Reduce stress from work
2. How would you use technology to improve the health of your family and community? (192)
 - Use of programs allow individuals to encourage friends, family and community members to eat healthier and be active
 - Use gaming to make exercise more fun
 - Develop websites, and apps to monitor food intake (calories, nutrition, etc.) and track physical activity
 - Provide easier access to healthy recipes
 - Show consequences of health and wellness decisions

3. What healthcare challenges do you and your family face? Give us your ideas for a solution to those challenges. (201)
- Lack of health insurance: address high health care costs and providing healthcare to families of all income levels
 - Improve family health and nutrition: improve access to healthy food options
 - Reduce health risks: improve eating habits and increase physical activity

Teen Videos

Council categorized the 82 videos into 10 topics plus a finalist category. Each video was viewed by one evaluator who briefly described the content of each video then identified themes within each of the topical areas. To assure validity of the themes and inter-rater reliability, two more reviewers divided the videos into even and odd numbers and viewed every tenth video. Reviewers discussed their conclusions, verified and created the final set of themes. The themes were then used to compare to the other two sources of data for congruence or differences. Table 5 shows the organization of the videos by topics, title, key points and themes.

Table 5. Teen Videos Topics, Title, Key Points and Themes

Table 5 - Part 1 - Community Health

Video Title	Key Points	Themes Shared Among Individual Category
Teen leaders of Barton County, MO	1 in 5 kids suffers from poverty Food drive, raised over 3000 canned foods Community gardens at hospitals, grow foods and utilize leftovers Backpack program – free meals for kids for those who need it	<p>1. Giving back to the community as a whole - participating in activities which could benefit more than just an individual person or family, such as food drives and awareness walks.</p> <p>2. Lots of focus on community communication and participation, getting the whole Town Hall or community to participate in an activity benefitting the entire community, such as talking to hunters to donate venison to the hungry, doing community food drives that everyone could participate in, designing a fair for the whole community to attend to raise awareness about community health.</p> <p>3. Lots of issues discussed, one of the main ones was poverty and hunger, and multiple videos discussed how to hold food drives, community gardens, and backpacking programs to help aid those in</p>
Childhood Hunger: Katie Goodman, Hanover VA	Participated in 4-H public speaking contest about childhood hunger Spread the word about childhood hunger Organized food drives, convinced hunters to donate venison to the hungry Collected over 1000 lbs of produce, 50 lbs of venison Helped over 9k people	
Obesity in Texas	Kids planted a school garden to help supply the cafeteria with fresh fruit and vegetables Healthy food to promote healthy eating Made a blog to ask for donations and the garden has made a difference Garden is used to feed cafeteria as well as students' individual families	
Indiana 4-H members	Targeting families to help create healthier communities Healthy communities grant has identified community issues, such as nutrition, substance abuse, cyberbullying and cybersecurity Collaborating to form a "Fair Fit 5K", different themes tackled each day of the fair	
Littering and recycling	Encourages people to pick up trash every day; contribute to the environment and future generations	

The secret to a healthy community	<ul style="list-style-type: none"> a. Starts with one person at a time b. Asking questions, talking to your friends about it, then asking more questions c. Help is available if you have the motivation to go looking for it d. Many ways to make a difference, big and small that can all have an impact e. Health and fitness, the only way to make a change is you 	need.
Be a hero, don't drive distracted	<ul style="list-style-type: none"> a. Eating while driving causes 80% of accidents, applying makeup, goofing off with friends all increase your chances of crashing b. Texting causes a huge distraction c. Taking your eyes off the road for 2 seconds while going 55mph is the same as driving an entire football field blindfolded 	<p>4. Lots of emphasis on avoiding distractions, such as eating, talking to friends, listening to loud music, and putting on makeup. Multiple videos particularly focused on the negative effects of texting while driving. One of the videos touched upon safe alternatives/preventative measures like having a friend keep the drivers phone while they are driving, or putting a cellphone into the backseat so you wouldn't be tempted to reach for it while driving.</p>
Distracted driving	<ul style="list-style-type: none"> a. Short clip of someone saying "drive responsibly" 	
Teens and safe driving	<ul style="list-style-type: none"> a. Remind your friends to wear seatbelts and be responsible while driving b. Be responsible about texting, speeding, and loud music 	
Texting and driving	<ul style="list-style-type: none"> a. Don't text and drive, causes crashes and you should focus on the road b. Provides alternatives like asking someone to text for you or putting your phone in the backseat so you don't get distracted 	

Table 5 – Part 2 - Fitness & Exercise Specific

Video Title	Key Points	Themes Shared Among Individual Category
I don't have time for that	a. Health challenge in community is that people think they don't have time to exercise b. Make people aware that exercising for a 10 minute segment for 150 minutes a week is easy. You can multitask and exercise at the same time.	<p>1. This category was about becoming healthier with a focus on getting fit by exercising more. Some of the themes in this category are common across multiple videos included promoting exercise as a fun activity. Many of the students in the videos were smiling and energetic while playing sports or being active and the message seemed to be that you don't have to look at exercising as a chore but instead as something that you can look forward to.</p> <p>2. Tied in with the theme of exercise being enjoyable was getting fit with family and friends. Students emphasized things like playing sports with friends and going out instead of sitting at home playing video games with them, as a way to continue hanging out with your friends and simultaneously promote a healthy lifestyle.</p> <p>3. Another topic that came up a few times was incorporating exercise into a busy lifestyle, and making small changes to be more active even while you're at work or constantly busy with something. Suggestions included things like taking the stairs when possible, sitting on exercise balls at work, etc.</p> <p>4. Many of these student videos encouraged viewers to challenge themselves and set goals for themselves as a way to slowly increase their daily exercise and to promote a healthier overall lifestyle.</p>
Being fit for a zombie apocalypse	a. Not eating healthy could lead to a multitude of health problems and can have a big impact on your future b. You can become sluggish and inactive because of overeating and not being fit	
Exercise is important	a. Exercise is important for the body, need 60 minutes a day b. Highest amount of obesity today because people aren't active enough c. Exercise is fun d. Challenge yourself to eat healthy and work out for 60 minutes a day for a whole week	
Fair Time Fitness	a. Lose weight while having fun b. Everyone is tempted to eat during fairs c. 15 minute workout challenge during a fair where you and others have a fun time while exercising and learn about eating healthy d. Make a presentation to your community to get them informed	
Get outdoors with 4-H	a. Today's American kids are less connected to the outdoors than ever, too much time on screens or computer games b. Create fun, active, outdoor activities for teens in the community	
Get up and get active	a. We spend more time on phones than sleeping b. Set goals and limits on how much you watch TV every week	
Got exercise?	a. Lots of fun ways to get active	
The importance of exercise	a. Lots of people are scared off by exercise b. Take small steps and you won't even realize that you're exercising	

Table 5 – Part 3 - Healthy Eating

Video Title	Key Points	Themes Shared Among Individual Category
4-H health intervention	<ul style="list-style-type: none"> a. Unhealthy eating after hours and unhealthy breakfasts b. Replace junk with fruits and vegetables c. Try adding a fruit and a vegetable to every meal d. Help your family and support each other in making healthy lifestyle choices 	<p>This category was about becoming healthier with a focus on eating better.</p> <ol style="list-style-type: none"> 1. Almost every single one of these videos mentioned eating less sugar. Some videos focused on junk food, some on obesity, and some on energy drinks, but all of them recommended cutting down sugar intake considerably or completely. 2. Another common suggestion in these videos was to replace junk food with healthier fruits and vegetables as a way to adopt a healthier lifestyle. Many of these videos talked about how people don't meet the recommended fruit/vegetable intake and how they eat too many non-nutritious snack foods. 3. Videos in this category also talked about getting healthy with friends and supporting each other, as a way to help others achieve healthy lifestyles as well. 4. A few of the videos suggested making presentations to younger students and others in the community as a way to get people started on living a healthy lifestyle and following a healthy diet from a young age. 5. Some videos included healthy recipes for the viewer.
All hyped up	<ul style="list-style-type: none"> a. Many people have died from caffeine overdose caused by energy drinks b. Energy drinks cause health problems like headaches, nausea and tremors c. Want to get the word out through social media about how energy drinks are bad for you 	
Don't want you back	<ul style="list-style-type: none"> a. Replace junk in the diet with healthier food b. Do it with friends to support each other 	
Eat healthy every day	<ul style="list-style-type: none"> a. Replace junky snacks for fruit b. Do it with friends and support each other 	
Eat healthy, live happy	<ul style="list-style-type: none"> a. Diabetes is caused by too much sugar and starch b. Healthier family lifestyles c. Healthier alternatives and portion control d. Supporting your family e. Attend fitness camp, educate younger kids f. Make healthy eating something fun 	
Healthy eaters – start to finish	<ul style="list-style-type: none"> a. Georgia has 2nd highest obesity rate in America b. Medical care in Georgia alone costs 2.1 mill for obese children c. Implement a four week course for elementary school 4-Hers and educate them about a healthy lifestyle d. Shopping healthy on a budget, cooking healthy, and presenting what they learned 	
Healthy hummus	<ul style="list-style-type: none"> a. Example of a healthy recipe b. Cook with your friends and have fun 	
Not in my house	<ul style="list-style-type: none"> a. Live a healthy lifestyle, involve your family b. Learn about the detrimental effects of fast food 	
Nutrition talk	<ul style="list-style-type: none"> a. Educate your friends 	
Office chat	<ul style="list-style-type: none"> a. Learn about Omega 3 and omega 6 b. Must have a source of omega 3 in every meal, don't eat saturated fat 	
Sweet is sour	<ul style="list-style-type: none"> a. High rate of obesity because of sugar b. The average adult consumer 150 lbs a year of sugar c. Sugar is found in lots of foods that you might not know d. Contest to avoid processed or added sugar, you could participate yourself or with your family 	
The health issues of carbonated drinks	<ul style="list-style-type: none"> a. Alternatives to soda like tea and water b. Soda is full of sugar and can lead to health issues 	

Table 5 – Part 4 - Mental Health

Video Title	Key Points	Themes Shared Among Individual Category
5 steps to combat stress	<ul style="list-style-type: none"> a. Anxiety and stress b. Pressure, mood swings, irritability, depression c. 5 things people can do: sleep, eat healthy and regularly, surround yourself with a good network of friends, staying active, don't procrastinate 	<p>1. Three of the videos in this category focused on stress, which many students deal with because of pressure from parents, school, friends, and their environment.</p> <p>2. A common theme discussed in these videos was communication, and multiple videos emphasized talking to people in order to have a good support system when you're feeling stressed out. One video also suggested that even if you are not stressed, be observant of your own friends and always let them know that you're there in case they need someone to talk to.</p> <p>3. The other videos in this category talked about autism awareness and smoking, and both of them emphasized communication among family, friends, and classmates as well regarding these health issues.</p>
Autism awareness	<ul style="list-style-type: none"> a. Talk to friends and classmates about autism and spread the word about being tolerant of those with special needs 	
COPD effects on family	<ul style="list-style-type: none"> a. Talk to your family about smoking b. Smoking affects not just the smoker but the smokers family and friends 	
Stressing over stress	<ul style="list-style-type: none"> a. Child stress – from school, sports, parents, friends, from grief b. Little elements can add up to cause stress c. Talk to people about it 	
We care	<ul style="list-style-type: none"> a. Get support from others when you feel bad b. Show love, trust, and security to those around you, always let people know you care 	

Table 5 – Part 5 - Overall Health

Video Title	Key Points	Themes Shared Among Individual Category
A healthier lifestyle	a. Eat healthier and exercise more	<p>1. Many of the videos in this category were similar to the videos regarding getting fit by staying active and getting fit by eating healthy. These videos were put into the "Overall Health" category because they tackled both issues in the same video.</p> <p>2. Many of the themes here were the same as the ones mentioned in the two abovementioned categories, such as replacing junk food with fruits and vegetables, staying active with friends, making exercise something fun, and healthy recipes to follow.</p> <p>3. A few of the videos also touched on involving not only your immediate family and friends but involving the community as a whole, by participating in 5K walks, and sponsoring healthy living presentations for members of the community.</p>
Houston healthy living	a. Top 10 ways to promote healthy living b. Rest, stretch, exercise, sports, no alcohol, no drugs, good hygiene, annual doctor visits, healthy eating, dance	
Be active, eat healthy, live better	a. Important to get your hour of activity every day b. Important to make healthy decisions so you can maintain a healthy body and mind	
Fun with fitness and food	a. Use time wisely so that you can make time for exercising b. Eat healthy and stay active c. Spend less time in front of video games d. Ask your friends to do the same	
Health rocks! Georgia 4-H	a. Involve your whole community in getting healthy	
Healthy and I know it	a. Take stairs and play sports instead of less active b. Eat fruits and vegetables	
High energy health club	a. Examples of healthy foods b. Importance of physical activity	
Minnesota Grant county 4-H	a. Dance to exercise	
Munch and move!	a. Eat healthy and be active	
Screenagers	a. Teens don't look away from their screens and eat too much junk food b. Involve your friends in getting active together c. Try new fruits and vegetables	
Strive to survive	a. Combat unhealthy eating habits and physical inactivity b. Participate in walks with others to get	
Take a ride on the healthy side	a. Example of a healthy recipe b. Eat healthy with friends, exercise with friends	
Way 2 go!	a. People spend too much on fast food, don't eat healthy, don't exercise enough b. Examples of health problems caused by obesity c. Exercise promotion, encourage healthy lifestyles d. Promote healthy lifestyles to the whole county	

Table 5 – Part 6 - Personal Health

Video Title	Key Points	Themes Shared Among Individual Category
Acne health	<ul style="list-style-type: none"> a. Acne can be physically painful as well as emotionally painful b. Link between acne and what you eat 	<p>1. The videos in the Personal Health category touched on a variety of topics but almost all of them had a theme of being aware and informed of health concerns.</p> <p>2. Whether the video focused on eating disorders, tanning, diabetes, or concussion awareness, all of the students in the videos emphasized how important it was to know symptoms and preventative measures for health concerns associated with those conditions.</p> <p>3. They mentioned being observant of others and speaking up about health concerns like diabetes and eating disorders, making sure to know warning signs in case of emergencies.</p>
Concussion awareness	<ul style="list-style-type: none"> a. Each year estimated 3 million concussions, 10% on high school b. Awareness of concussions is important, most people won't know symptoms c. People need to take the right preventative steps 	
Don't sneeze into your hands please	<ul style="list-style-type: none"> a. Shows the spreading of germs caused by sneezing into your hands b. Wash hands often 	
How to fight allergies	<ul style="list-style-type: none"> a. Use honey, use tissues, go see your doctor 	
Recognizing eating disorders	<ul style="list-style-type: none"> a. Look out for siblings and others b. Know symptoms for anorexia and bulimia 	
Summer is coming	<ul style="list-style-type: none"> a. Know about protection from the sun, use sunscreen b. Know what works best for you c. Bring sunscreen to donate to youth organizations in community 	
The dangers of tanning	<ul style="list-style-type: none"> a. Know about risks involved with tanning and skin cancer b. Use sunscreen and hats 	
The fight against type 1 diabetes	<ul style="list-style-type: none"> a. Educate yourself about juvenile diabetes b. Making a cookbook of diabetic friendly recipes 	
Wash your hands	<ul style="list-style-type: none"> a. Wash your hands to prevent spread of germs throughout your systems b. Take kits to local community centers to give kids visuals of what happens if you don't wash your hands 	

Table 5 – Part 7 - Social Issues

Video Title	Key Points	Themes Shared Among Individual Category
Bullying	a. Bullying can make people feel very alone b. Support others when they're having a hard time, stand up for them c. Be the solution	<p>1. Two of the videos in this category focused on bullying, and a sub-theme was speaking up if you see someone being bullied. Students in the videos recognized how much of an impact standing up to a bully can have on the person being bullied.</p> <p>2. Even in the video on peer pressure, students talked about how to support friends and others in order to prevent them from getting involved in activities that might have a negative impact in their life.</p>
Cool it campaign	a. Stop people from being rude to others in public, speak up for them	
Hidden in plain sight	a. Domestic sex trafficking b. Ambassador of hope so young people have resources and people to talk to c. Know the signs of sex traffickers	
Overcoming peer pressure	a. It can be really easy for kids to be negatively influenced by media and their friends b. Local community center helps youth positively affect their lives c. Be involved with your community	
Safe sex	a. Know about consequences of practicing unprotected safe sex	

Table 5 – Part 8 - Substance abuse

Video Title	Key Points	Themes Shared Among Individual Category
Alcohol use	a. Know about the effects of overusing alcohol	Across the two videos was the theme of education about substance use and abuse.
Recovery	a. Make a video for class to educate young people about drug abuse, made by people that are now sober	

Table 5 – Part 9 - Weight specific

Video Title	Key Points	Themes Shared Among Individual Category
Tackling obesity	a. Exercise with friends b. Lessons for 4-5th graders to educate them about how to lead healthy lifestyles c. High school students can be mentors to them	A common theme in these videos was exercising with friends as a way to have a support group, have fun, and have a healthier lifestyle while fighting obesity or weight gain.
Beat obesity for busy people	a. Eat healthy, exercise, and encourage others b. Stretch while doing – multitask c. Form a fitness group with your friends	

Table 5 – Part 10 - Finalists

Video Title	Key Points	Themes Shared Among Individual Category
Hiking to health	a. Go hiking with friends to keep active while having fun.	There are no common themes among the video finalists.
Alcohol and driving combined	a. Know about risky driving habits/what can happen if you drink and drive.	
Messages through music	a. Teens don't know enough about sex to be having it at such a young age, promotes abstinence.	
Move your body	a. Promotes healthy eating, encourage your friends to do the same b. Talks about negative effects of not exercising.	
Solving food deserts	a. Food desert – community that doesn't have enough access to healthy choices. b. Community garden – a way to provide healthy food to the entire community.	

Teen Town Halls

Five states provided six reports of their Town Hall meetings. National 4-H Council provided a report of the National Youth Summit for Healthy Living Town Hall meeting. Table 6 summarizes the participants' characteristics. Characteristics were previously shown in the *Health Themes from Teens* portion of this report.

Table 6. Summary of Teens Take On Health Town Hall Teen Participant Characteristics

Location	Youth	Male/ Female	Racial Majority/ Minority#	Low Income Estimate***
CA	131	*	28/103	85%
FL	89	19/70	29/60	60%
MD-Campus	51	19/32	29/22	16%
MD-Temple Hills	35	25/10	00/35	98%
MI	21	4/17	03/18	25%
UT	212	77/135	154/58	39%
Summit	81	20/61	51/30	**
Total	620	164/324 %34/66	294/326 % 47/53	

*This cell is blank due to the lack of complete gender data in the state report. Therefore, the total for gender does not match the number of youth.

**No estimate provided.

***Due to the lack of information about how this percentage was determined and the likely variability in how this estimate was derived, no conclusions can be drawn.

A summary for each of the Town Halls is available on request.

Appendix B

Review of Literature

Prepared by Dr. Bonnie Braun and Dr. Virginia Brown

What follows is not an exhaustive review of literature, but themes identified by Council, Molina and the evaluators as fundamental to youth health both individually and as a member of families, communities and of a society with its public policies. Evaluators searched research articles, youth health program reports, including 4-H and relevant U.S. public policy documents. Primary sources were within the past decade. A complete list of references is included in Appendix B.

This review begins with an overview of key points from scholarly research and relevant documents. The review is organized by the following topics: health; youth perceptions of health; health equity, disparity and social determinants; health literacy; youth empowerment; youth development; and the social and ecological theory. Topics are defined and explained with literature cited to provide directions for future health interventions or programs.

The topics of social determinants of health, health equity and health disparities and health literacy introduce how the health of our youth, and ultimately adults, is affected by factors that go beyond the inherited biological self. Youth empowerment and youth development explain how the two concepts work together to improve individual health and that of families, communities and society. The use of a social-ecological theory and model provides a framework for organizing health interventions.

The youth addressed in the review of literature are not the youth addressed in the thematic analysis. Youth in the review of literature are associated with research studies, not the Council-Molina initiative.

Health

What is Health?

Over time, definitions of health vary as demonstrated by these three examples: The World Health Organization defined health as a: “state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (WHO, 1946). The Ottawa Charter for Health Promotion (1986) described health as a personal and social resource for daily living. Bircher (2005) stated, “Health is a dynamic state of well-being characterized by a physical, mental and social potential which satisfies the demands of life commensurate with age, culture and personal responsibility.” Definitions depend on perspectives, which vary by profession (medical, public health, education, business etc.).

In the United States, 75 percent of our health care dollars goes to treatment of chronic diseases with the rest going to prevention. Many chronic diseases are related to obesity—an increasing national health issue. One in three adults and one in five youth between 6 and 19 are obese. Chronic diseases are the leading causes of death and disability. Four health risk factors are related to chronic disease: lack of physical activity, poor nutrition, tobacco use and excessive alcohol consumption. More than a third of adults do not meet physical activity recommendations. About one-fourth of the adult population eats the recommended number of fruits and vegetables—slightly less for teens (CDC).

Why is a definition of health important?

For any kind of intervention, personal, family, organization, community or policy, a common definition is needed. Youth programs that address health need an explicit statement of definition as a basis for program planning, implementation and evaluation. 4-H uses the term healthy living and the concepts of physical, social and emotional well-being as an implied definition of health (4-H, 2009). This definition serves as a reference point for this report.

Youth Perceptions of Health

Perception is a personal worldview. Perception results from how an individual thinks about, and makes sense of, something—an idea, another person, a situation, a behavior, a public policy. Perception of health affects actions that contribute to positive or negative health outcomes. Understanding perceptions of health can inform health education.

What are youth perceptions of health and health care?

Youth tend to recognize there are multiple ways in which health is impacted, whether or not it is personal, family, or community, and regardless of the health dimension (i.e. nutrition, physical activity, etc.), personal health status, and income level. Woodgate and Leach (2010) found that among youth from diverse backgrounds, health was perceived as being divided into different types (mental, physical, etc.) that contribute and affect one another. They also found that while youth acknowledged health to be affected by other factors, it was up to the individual to engage in healthy behaviors.

Thomas and Irwin (2009) found that overweight or obese youth believe that a healthy body weight is not only determined by individual eating and physical activities, but is also affected by family support, food access, self-esteem, bullying and other environmental factors. Clark and Irwin (2013) found that the main barrier to healthy cooking was easy access to fast food; facilitators were cooking education, access to fresh foods and the relationship food gave them with their family, friends, community and culture—the social dimensions of food.

Ambresin et al. (2013) found that the level of engagement youth have with their health and health care systems will vary based on their perceptions of health care accessibility, staff attitudes, competency of staff and involvement in their own health care. The Office of Adolescent Health (2013) looked at multiple studies on health perspectives among youth and youth health programs and services. They found that health care programs and services need to be easily accessible and include a positive provider-youth relationship. Within that relationship youth can be informed about their health, health options and health insurance. This study also found that youth reported they are not only concerned for themselves, but their family, schools and community as a whole.

Health Equity, Disparity and Social Determinants of Health

What is Health Equity and Health Disparities?

Health is not distributed equitably among all people. Personal, family and social health is affected by multiple system factors. According to the Centers for Disease Control:

Health equity is achieved when every person has the opportunity to “attain his or her full health potential” and no one is “disadvantaged from achieving this potential because of social position or other socially determined circumstances.” Health inequities are reflected in differences in length of life; quality of life; rates of disease, disability, and death; severity of disease; and access to treatment.

Lack of equity is called disparity. Disparity diminishes the physical, emotional and social health and well-being of individuals, communities, the nation and world, or as public health says, population health. Populations can be defined by factors such as race or ethnicity, gender, education, income, disability, geographic location (e.g., rural or urban), or sexual orientation.

Health disparities arise from an inequitable distribution of social, political, economic and environmental resources. This inequitable distribution of resources has historic roots and exists currently. Poverty, lack of adequate access to health care, level of health literacy and other individual and family factors are examples. The CDC (2008) says that: “Health disparities are preventable differences in the burden of disease, injury, violence, or opportunities to achieve optimal health that are experienced by socially disadvantaged populations.”

Why are health disparities among youths a problem and social issue?

Youths with less education are at-risk of negative health outcomes including inadequate nutrition and physical activity leading to obesity, substance abuse, teenage pregnancy, physical and emotional abuse, gang involvement and injury (Choi, 2007; Stuart et al, 2008; Valois et al, 2002). Youths who experience health disparities are less likely to access health care and health programs, experience unequal educational opportunities and higher absenteeism from school. All of these factors individually and collectively diminish chances of youth breaking the cycle of disparities (Allensworth, 2010). Thus, the stage is set for health problems throughout adulthood. And the more health problems experienced by a population and its subpopulations, the greater the costs of care.

What are social determinants of health?

The social determinants of health are the circumstances in which people are born, grow up, live, work, and age, as well as 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. (World Health Organization).

Settings for these circumstances are known as “place.” The place where people live, work, play, and learn, and the extent to which people feel safe and secure in those places, affects health outcomes. Examples of resources of those places include access to, and quality of, education, housing, healthy foods, parks and recreation and health and human services. Those circumstances, or determinants, also include policies and political systems, employment opportunities and quality of physical environments (Dean et al, 2013). Schools as an environment can contribute to positive or negative impacts on health. Recent research suggests that an estimated 10 to 25 percent of middle school students experience bullying (Bogart, et al, 2014). The authors

who conducted a longitudinal study of the effects of bullying found that both mental and physical health of children were negatively impacted years after the bullying incidents.

Determinants of health are factors that affect health and well-being. When viewed through a systems perspective, determinants go beyond a young person's biology and behavior. Factors such as social and economic status of families and their communities affect a young person's health. When looking at these, the economic and social status of the family and community can positively or negatively affect the health and well-being of youths.

The U.S. has established health policies to address social determinants of health. One of the four policy goals in Healthy People 2020 (HP2020) is to: "Create social and physical environments that promote good health for all." The same policy document acknowledges that while youth are generally healthy, public health and social problems start during this time: homicide, suicide, motor vehicle crashes, substance use and abuse, smoking, sexually transmitted infections, unplanned pregnancies and homelessness. The leading causes of illness and death for youth are largely preventable. Interventions need to address factors that influence behavior including their own beliefs and knowledge, peers, family, schools, communities and society.

HP2020 also identifies a goal for adolescents and young adults focused primarily on risk factors: *Improve the healthy development, health safety and well-being of adolescents and young adults*. One objective is focused on annual physical check-ups for adolescents, another on school breakfast service, several on violence prevention and reduction, and others on academic achievement.

Another federal policy emphasizes a prevention strategy. With passage of the Affordable Care Act (ACA), the United States put into place its first prevention policy to reduce the costs of chronic health problems (Koh and Sebelius, 2010). In response, the U.S. Surgeon General convened the National Prevention Council. That Council released its *National Prevention Strategy: American's Plan for Better Health and Wellness* (2011) with one goal—to increase the number of Americans who are healthy at every stage of life. The Strategy includes four directions and seven priorities all of which are relevant to youth and includes reducing health disparities.

The ACA also emphasized the role of health insurance in getting access to care and in making that care affordable both for the individuals covered by the plans and for society who must cover costs of the uninsured. ACA seeks to expand coverage to approximately 30 million Americans via employer-based insurance, the insurance marketplace or through Medicaid expansion.

Why are social determinants important?

The health of young people, their families and communities is impacted by multiple positive and negative factors. Therefore, when trying to impact the health of individuals, these social determinants need to be considered. Individuals are affected by multiple spheres, which must be addressed to increase the likelihood of positive health outcomes. This multidimensional approach has been successfully used in health policy and programs like 4-H and other youth programming (Dean et al, 2013).

Health Literacy—A Social Determinant of Health

What is health literacy?

Health literacy, as a concept and a field of study, is relatively new. Most articles focus on health literacy in relation to acute, chronic or emergency care; few focus on health literacy through a public health lens that includes an emphasis on prevention of health problems. The frequently cited Institution of Medicine (2004) definition is: “the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.”

As Pleasant et al. (2013) note, the IOM definition focuses on individuals and not on the capacity of families, communities and other groups. The authors also note the definition’s lack of linkage to health outcomes. Pleasant et al. (2013) also declare that health literacy is a social determinant of health. They believe it is key to improving health and well-being.

Kutner et al. (2006) reported on the national assessment of health literacy among adults. Only 12 percent of adults had a *Proficient* level of health literacy; 53 percent were at an *Intermediate* level; 22 percent were at *Basic* level; and 14 percent were *Below Basic*. Ethnic minorities are more likely to have lower levels of health literacy.

According to the Institute on Medicine (2003), the United States bears a high economic burden for health care costs associated with low levels of health literacy attributed to the lack of preventative care and higher use of emergency and hospital care. Vernon et al.(2003) estimated the annual cost of low health literacy to be in the range of \$105 to \$238 billion annually. And because current health status affects future costs, they estimated that the cost will become closer to \$1.6 to \$3.6 trillion annually.

The opening paragraph of the 2010 *National Action Plan to Improve Health literacy* states that the plan seeks “to engage organizations, professionals, policymakers, communities, individuals, and families in a linked, multi-sector effort to improve health literacy.” The report names two principles that undergird the plan: (1) “everyone has the right to health information that helps them make informed decisions and (2) health services should be delivered in ways that are understandable and beneficial to health, longevity and quality of life.”

The March 2010 Affordable Care Act both implicitly and explicitly addressed health literacy. The Act requires consumers to make health insurance purchase decisions. The Act emphasizes enrollment of young adults, 18 to 26. Research shows youth lack health insurance literacy due to the lack of classes on the topic. As they become young adults, they will join current adults who are confused and lack confidence in making those purchases (Kim, Braun and Williams, 2013).

Why is health literacy important?

Health disparities among youth are often coupled with lower levels of health literacy—the ability to understand and act on health information and access health services (Diamond et al. 2011). While studies on youth health literacy are limited, those that have been done have found low-literacy levels are associated with greater risk-taking behaviors (DeWalt & Hink, 2009; Sanders et al., 2009). Conversely, youths who have high health literacy have improved self-efficacy skills (Robinson, Calmes and Bazargan, 2008).

Health and Youth Empowerment

What is Empowerment?

Empowerment is a process by which individuals gain perceived autonomy and confidence to achieve control over issues of concern to them (Bergsma, 2004; Jensen, 2002; Kar, Pascual, & Chickering, 1999; Varkey et al., 2010). Health education, health promotion and community psychology have used empowerment (Bergsma, 2004; Kar et al, 1999; Freire, 1973; Rappaport, 1987; Zimmerman, 1995). Empowerment can exist on individual, community and organizational levels (Zimmerman & Warschausky, 1998). Individual empowerment involves perceptions of personal control, a level of self-consciousness, self-efficacy and an awareness of the particular problem and possible solutions (Bergsma, 2004; Kar et al., 1999; Zimmerman, 1995).

Youth can become empowered through civic engagement. They can contribute to issues, such as those affecting health. Ginwright & James (2002) laid out the case for youth engagement through a social justice ecological model when they wrote:

Given the social, ecological, and political challenges that face our world today, the next generation cannot wait until they are adults to begin the work of building a more humane and sustainable world. In organizations around the country, young leaders are not just being taught about leadership; they are taking leadership and learning by doing—thus making organizations, schools, and communities more accountable, effective, and democratic. (p. 44)

Kirshner (2007), writing about the value youth and communities gain when youth are civically engaged, reinforced the case for youth civic engagement illustrated in this statement: *Finally, social action projects connect youth to civic institutions and engage them in authentic learning experiences that demonstrate the relevance of academic skills to everyday life (p. 373).*

What is Youth Empowerment?

Youth empowerment is a critical component of youth development. Through experiential learning that supports empowerment, youth can gain the confidence and skills necessary to be contributing members of their families, groups, community and society.

One useful definition of youth empowerment is provided by the non-profit organization YES!

Youth empowerment is the outcome by which youth, as change agents, gain the skills to impact their own lives and lives of other individuals, organizations and communities (YES!, 2013).

Zimmerman (2000) divides empowerment into three levels—individual, organizational and community—and states that empowerment efforts should connect individuals with the larger sociopolitical environment and provide opportunities to be active community citizens in decision-making.

Youth empowerment works best when environments are welcoming and when youths are guided to engage in multiple systems including organizations, community and policy systems (Jennings et al., 2006).

Jennings et al. (2006) sought to better understand what elements were necessary for a successful youth

empowerment program. They analyzed current youth empowerment models and found that six key dimensions undergirded each model. These were:

1. A welcoming and safe environment
2. Meaningful participation and engagement
3. Equitable power-sharing between youth and adults
4. Engagement in critical reflection on interpersonal sociopolitical processes
5. Participation in sociopolitical processes to effect change; and
6. Integrated individual and community level empowerment.

These elements have been successfully integrated into several youth empowerment programs, addressing a wide range of topics within their communities, including dairy consumption, mental health, violence prevention and general community issues (Jones and Perkins, 2006; McLean, Penniston and Tanumihardjo, 2010; Cowan and Smith, 2010; Walker et al., 2010; Zimmerman et al., 2011). Jennings et al. (2006) found that youth empowerment works best when environments are welcoming and when youths are guided to engage in multiple systems including organizations, community and policy systems.

Why is Youth Empowerment Important?

Youth who participated in youth-led programs felt empowered by the support and encouragement they received from adult participants, and both adults and youths were significantly more likely to have positive perceptions of these programs than those that were adult-led (Jones and Perkins, 2006; Franzen et al., 2009; Parrow, 2008). However, Wong et al. (2010) concluded that while engaging youth and adults in egalitarian approaches is optimal for healthy youth development, few studies document the effects of shared control.

An investigation of 4-H youth programs by Zeldin et al. (2000) found that involving youth in decision-making consistently produces mastery of skills, compassion and positive health outcomes. Cargo et al. (2003) found that when communities welcomed and enabled youth, positive changes in youth development occurred and these youth experienced social integration into their communities.

Health and Youth Development

What is youth development?

Youth empowerment is considered by many researchers and youth advocates as a part of youth development. Youth empowerment is seen as a transactional process that is achieved when a community or situation is set up to allow for an egalitarian approach (Cargo et al., 2003). Empowerment can also be transformational. Therefore, successful empowerment of youth can lead to positive youth development (Lerner, Dowling and Anderson, 2003).

Youth development is an internal process (Cargo et al., 2003) through which youth develop the skills, knowledge and capacity to become productive citizens. Youths develop through many types of learning experiences—on their own, one-to-one and in groups.

Why Youth Development?

Youth development programs such as 4-H have been successfully used to work holistically with an individual and on public health issues (Lerner and Lerner, 2013). These issues have included teen pregnancy, smoking cessation and prevention, violence prevention, mental health and personal health (Kirby and Coyle, 1997; Scales and Leffert, 1999; Gallagher et al., 2005; Kloser, 2013; McDonald, 2010; Sieving et al., 2011; Atkiss et al., 2011). Within personal health, youth development programs have been used successfully to target physical activity (Ullrich-French and McDonough, 2013; Madsen, Hicks and Thompson, 2011) and self-regulation of risky behavior (Mueller et al., 2011; Humphrey and McDowell, 2013).

The National Initiative to Improve Adolescent Health focuses on “collaborative efforts to improve health, safety and well-being of adolescents and young adults age 19 to 24. It was created to elevate national, state and community focus on, and commitment to, the health, safety, positive development and well-being of adolescents, young adults and their families. The Initiative set goals to increase access to quality health and safety education and care; address social determinants of health; improve health outcomes and eliminate disparities among adolescents and young adults (CDC).

By investing in the health of youth and the environments in which they live, long-term chronic disease and its costs could be reduced. A focus on prevention fits a framework of youth development. The National Prevention Plan reinforces the need to ensure that young people are provided with the knowledge, skills and opportunities they need to allow them to become health adults (National Prevention Plan, p. 11). Youth development can contribute to preventing youth from engaging in health-compromising behaviors and to building abilities and competencies to become healthy adults (Roth and Brooks-Gunn, 2003), a desired outcome of youth development.

A review of 4-H efforts found that 4-H youth empowerment and development programs have led youth to excel beyond their non-4-H peers in the contributions they make to their communities, their civic activity and healthy lifestyle choices (Lerner and Lerner, 2013). Several studies over the past decade support these findings, lending credence to the 4-H youth development program (Lerner et al. 2011; Lerner et al. 2009; Lerner et al., 2005; Alberts et al., 2006; Jelici et al. 2007; Higginbotham, MacArthur and Dart, 2010).

A recent survey of state 4-H program leaders identified core content areas for nationwide focus (Boleman, et al., 2014). Among the eighteen 4-H projects cited in the report, the top five included projects either directly or indirectly related to health. *Foods and Nutrition* and *Health* are directly related and were labeled “content focused.” Citizenship and leadership are indirectly related and were labeled “process focused.”

Systems Approach to Youth Health Development

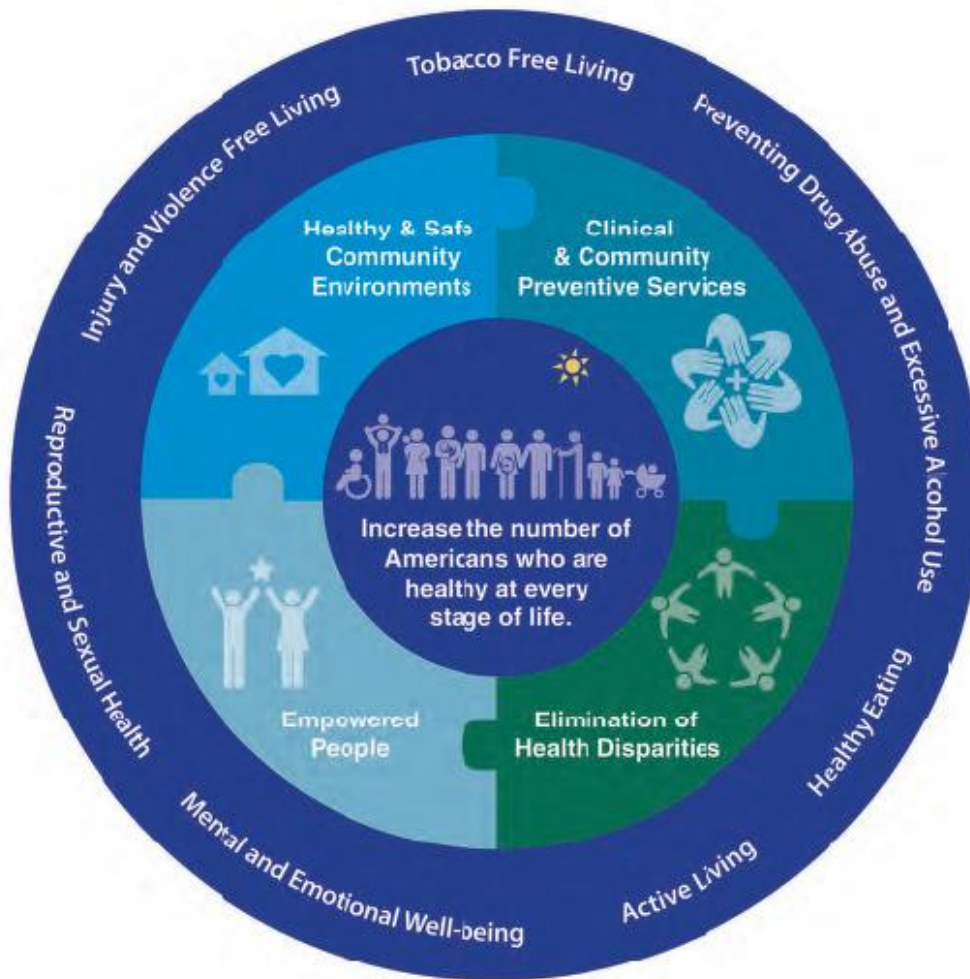
The extent to which youth successfully complete developmental tasks and become empowered is, in part, determined by the interactions of multiple environments in which a young person exists. Individuals are made up of multiple internal systems—digestive, respiratory, etc. They live within multiple external environments beginning with family and extending into the community through friends, schools, youth organizations and other systems. These systems become enablers or barriers to the development of youths.

What is a systems approach to youth development?

A systems approach recognizes that humans live in and are exposed to multiple environments and situations that may affect their behavior and beliefs. An understanding of these systems can be used to create positive youth development experiences. Youth development is an internal process, one where the skills, knowledge and competencies youth gain shape who they become as young adults. This internal process occurs through interactions with others in family, school and community settings. Youth development programs exist in organizational and community systems and provide opportunities for youths to interact with other youths and/or adults. They also provide opportunities to interact with formal and informal policy systems. 4-H Healthy Living programs address multiple systems using the Social Ecological Model (Healthy Living).

The Social Ecological Model, (McLeory et al. 1988) is an adaption for health behaviors of Bronfenbrenner's (1994) ecological systems model. The model states that human beings do not live in a bubble but rather are a product of their individual thoughts, interpersonal relationships, organizational entities, community structures and systems and policy to which they are exposed (McLeory et al., 1988; Atkiss et al, 2011). To increase the likelihood that any health effort is successful, program developers need to consider the interaction of systems on youths and of youths on those systems. The 2011 National Prevention Strategy uses a socioecological model to frame its prevention strategy. Figure 2 illustrates how the plan integrates dimensions of health and systems.

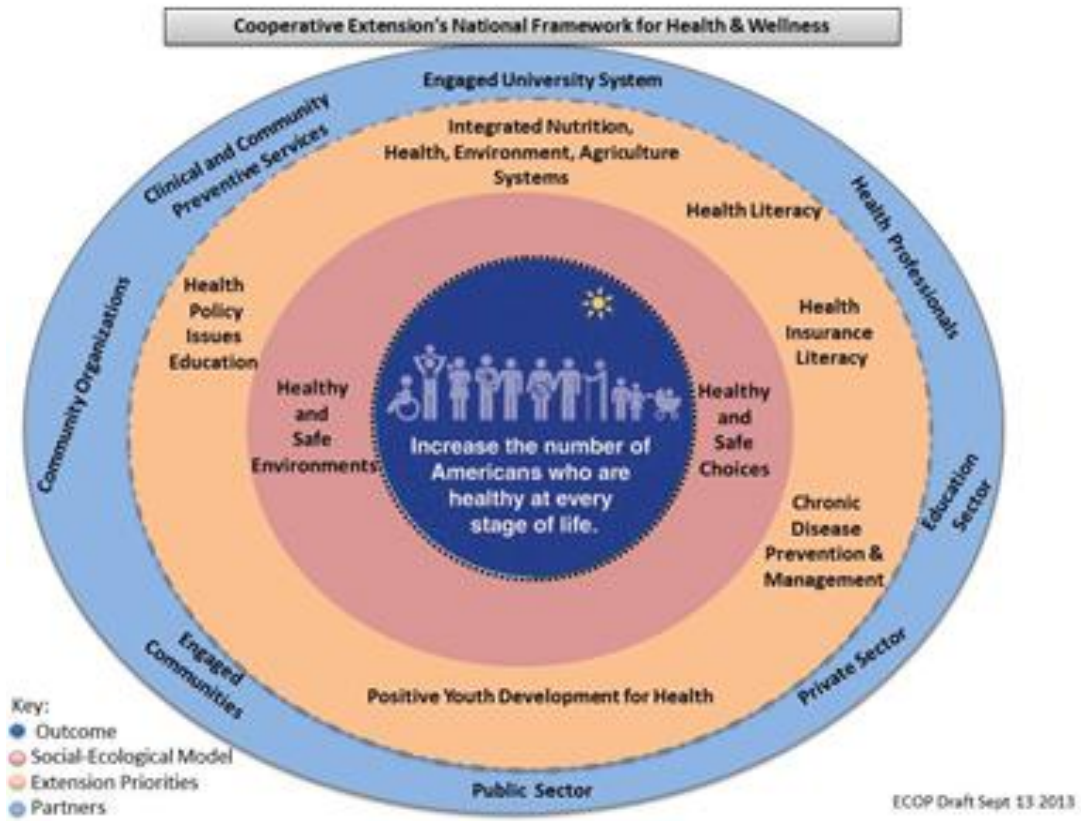
Figure 2. National Prevention Strategy: American's Plan for Better Health And Wellness



In 2012, the Extension Committee on Policy (ECOP) Health Taskforce was appointed and charged with creating a framework and strategies for an increased emphasis on health programming for youths and adults. Their plan, *Cooperative Extension's National Framework for Health and Wellness* will be released in March 2014. The framework is modeled after the National Prevention Strategy.

The task force determined that by aligning the Cooperative Extension framework with the National Prevention Strategy, Extension could accomplish a mutually beneficial engagement of both public and private partners and a national strategic direction that can both increase awareness of the value of prevention across multiple sectors and further support a comprehensive approach to preventing illness and disease by promoting health and wellness (ECOP Health Task Force). A draft version of the Extension socioecological model is shown in Figure 3.

Figure 3 Cooperative Extension's National Framework for Health and Wellness



Appendix C

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Appendix D

Credentials of Evaluators

Dr. Bonnie Braun Bio Brief

Dr. Bonnie Braun served nearly 37 years with Cooperative Extension in administrative and academic positions at four land-grant universities and the USDA. Currently, she is a

University of Maryland Extension Consultant. She was a 10-year 4-H Club member, becoming the first female head of Virginia 4-H and the first Endowed Chair and Director of the Herschel S. Horowitz Center for Health Literacy in the University of Maryland School of Public Health. She is a National 4-H Council and Annie E. Casey Foundation, Children, Youth and Families At-Risk Distinguished Lecturer. She served as a member of the U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion *Healthy People, Health Communication and Health IT Working Group*.

Dr. Braun holds three degrees in family and consumer sciences education with an emphasis on family economics and rural sociology. Her career focuses on decision-making by youths, adults, communities and public policy makers. She is recognized as a state and national leader in civic engagement; program development, evaluation and research on low-income families. Dr. Braun has an extensive record of funded, applied research and accompanying publications. She's a skilled teacher and curriculum developer. Dr. Braun is currently leading the Health Insurance Literacy Initiative for both the University of Maryland Extension and the nationwide Extension System and serves on the Extension Committee on Policy Health Task Force.

Dr. Virginia Brown Bio Brief

Dr. Virginia Brown joined the University of Maryland Extension in April, 2012. She is a Family and Consumer Sciences Educator focusing on health literacy, healthy homes and family and community health. She is a member of the Health Insurance Literacy Initiative that launched *Smart Choice Health Insurance*®. Dr. Brown initiated the development and testing of a health communication program between patients and their physicians. She also conducts healthy homes programming. Additionally, she has numerous presentations and publications related to community health education, health literacy and mixed-methods research. Dr. Brown is co-leader of the University of Maryland Health Smart Impact Team and trained to conduct the *Teens Talk Health Forums* held in Maryland. In 2013, she was honored for her health needs assessment of the communities she serves by the National Extension Association for Family and Consumer Sciences with the award for *Program Excellence through Research*.

Dr. Brown received a doctorate in Community Health Education from the University of North Carolina-Greensboro in May 2012; her master's and bachelor's in applied sociology from the University of Maryland-Baltimore County. She was trained under one of the developers of the *Social Ecological Model* and uses the model in much of her work. Dr. Brown was employed by Maryland's Mental Hygiene Administration as a Health Policy Analyst and was a project leader at Battelle's Center for Public Health Research and Evaluation.

Appendix E

Evaluators' Recommendations for the *Teens Take on Health Initiative*

Prepared by Dr. Bonnie Braun and Dr. Virginia Brown

Initially, the evaluators were asked to make recommendations to continue or expand an initiative between the two partners, as well as to extend the opportunity to additional partners. When reviewing the findings and literature for ideas for action, the lead evaluator came to the conclusion that these actions are not just limited to Molina and Council.

There are some actions that could be taken by state and local 4-H professional staff and youth and adult volunteer leaders. Below are eight recommendations that could be implemented in the short and long-term. Readers of this document may identify additional recommendations. Each recommendation shows potential groups who could act on the recommendation.

As drafts were reviewed, the concept of having both process and content ideas arose. Both are included in the reviewers' ideas and recommendation.

Reviewers' Recommendations

Process:

Recommendation 1:

Create a logic model template, prepopulated with key points from this report, for teens and adults working with teens, to use to specify prioritized actions, desired outcomes and resources for an extended *Teens Take on Health Initiative*.

Recommendation 2:

Convene a group or groups of youths and adults who are engaged in 4-H Healthy Living programs to discuss this report and identify priority actions for a continuing *Teens Take on Health Initiative* involving Council, Molina, other partners and local 4-H programs.

Recommendation 3:

Invite representatives of Cooperative Extension Committee on Policy's Health Task Force to discuss findings from the report and from their proposed national framework with the purpose of identifying ways to integrate the two and communicate with the nationwide Extension system—including 4-H, Family and Consumer Sciences, Agriculture and Natural Resources and Community Resource Development.

Recommendation 4:

Invite representatives of the National Prevention Council, the Department of Health and Human Services, including the Centers for Disease Control and other federal agencies and private organizations to explore ways to leverage *Teens Take on Health Initiative* and their own programs to achieve improved health of teens, their families and communities.

Recommendation 5:

Conduct teen health public policy workshops to increase the ability of teens and adults working with teens to impact health-related public policy. These workshops can be done at existing local, state and national venues such as Healthy Living Summits or state conferences. They can also become a new type of event that could involve multiple youth organizations. The skills gained at the workshops can be used by the teens to focus on community level policies. The skills would be transferable to state and federal public policies.

Recommendation 6:

Adopt a version of the socioecological model to be used as an organizing framework for all *Teens Take on Health Initiative* components and discussions.

Recommendation 7:

Share findings from this report with members of the public, media, public policy makers and youth educators to alert them to the health issues that matter to teens, their willingness to take action and the opportunity to empower youth to make a difference in their health now and for the future.

Recommendation 8:

Leverage this report to obtain grants and donor support for future youth health programming informed by findings of this report.

Content:**A. Program**

Recommendation 9: Focus on ideas for improving the food and nutritional intake of teens, their peers and parents as a means of reducing negative health outcomes of obesity.

Recommendation 10: Expand existing 4-H health programming to more teens.

Recommendation 11: Leverage attention to mental health to launch an effort to address mental health among teens, their families and communities.

Recommendation 12: Incorporate health concepts from teens into the 4-H Healthy Living Social Ecological model and into the ECOP Health Task Force recommendations to visually show how pieces fit together into a systematic approach to positive health outcomes of youth.

Recommendation 13: Teach youth and adults, both volunteers and professional staff, about health literacy and its relationship to health behavior.

B. Policy

Recommendation 14: Teach older teens about the Affordable Care Act; the role of health insurance in health care access; and how to make a smart health insurance choice when they turn 18.

Recommendation 15: Train older teens to help adults make health insurance purchase decisions similar to how 4-H members have helped older adults use computers.

Recommendation 16: Engage local communities, Extension's Master Gardeners and others in establishing more community gardens to improve access to healthy and lower cost food and build community.

Recommendation 17: Conduct deliberative health policy forums based on the National Issues Forums approach to public decision-making.

C. Partnerships

Recommendation 18: Work with schools of health sciences to incorporate workforce opportunities into health programming.

Recommendation 19: Work with technology companies to explore ways to realize some of the teens' ideas about use of technology to monitor and encourage physical activity with potential partners in the world of technology.

Recommendation 20: Work with the Robert Wood Johnson Foundation to build a culture of health among teens across the U.S.

D. Promotions

Recommendation 21: Use ideas from teens about promoting healthy food and activities at fairs to encourage teens to become further involved in opportunities that arise from this initiative.

Recommendation 22: Challenge teens to leverage the initial social media and video activities into an organized campaign to raise awareness and encourage action on health topics important to teens.

Recommendation 23: Promote teen health programming with the National Prevention Council, Healthy People 2020 and other government entities responsible for improving the health of adolescents.

About National 4-H Council:

National 4-H Council is the private sector, non-profit partner of the Cooperative Extension System and 4-H National Headquarters at the U.S. Department of Agriculture. 4-H programs are implemented by the nation's land-grant universities, and annually reach more than 6,000,000 youth between the ages of 5 and 18. Learn more about 4-H at www.4-H.org.

About Molina Healthcare:

Molina Healthcare is focused on providing solutions for government-funded health programs. The company began in 1980, when Dr. C. David Molina cut the cost and raised the quality of health care for patients who'd been going to the ER for primary treatment, by opening a community clinic. Today, Molina Healthcare serves approximately 2.1 million members across 11 states through its health plans. The combined effort of Molina's health plans, clinics and information systems simplify access to health care, empowering 5.3 million lives around the country. For more information, visit www.MolinaHealthcare.com.

