Oklahoma Health 360° - Obesity

CONTENTS

Executive Summary

Oklahoma Health 360°

Health 360° is one of three key areas of improvement for our state as identified by Governor Mary Fallin in her 2014 State of the State address. The three areas include health (Health360°), wealth generation (Oklahoma Works), and justice reform. Initiatives align with the Oklahoma Health Improvement Plan 2020 (OHIP) flagship issues: tobacco, obesity, behavioral health, and child health.

State and federal resources allocated to health are becoming exceedingly scarce. One of the main objectives of the Health 360° project is to ensure resources are used in the most effective and efficient way. Another main objective was to encourage sectors to work together to improve health and to consider approaching health improvement in a new format – health in all policies. Health in all policies is a collaborative approach to improving the health of all people by incorporating health considerations into decision making across sectors and policy areas. This approach also recognizes that health is created by a multitude of factors beyond traditional public health activities. In an effort to provide the most efficient method of budget informed decision making, while also incorporating a health in all policies approach, the Health 360° project team developed the following guiding principles:

- Cross agency and sector collaboration and strategic investment to improve health outcomes
- Identifying current investments and leverage for more efficiency
- Data, research, and evidence to inform decision making
- Health is impacted by a multitude of contributing factors and can be impacted through a Health in All Policies approach

Oklahoma Health 360° Process

The Health 360° Project efforts were led by the Oklahoma Health and Human Services (HHS) cabinet and project managed by the Oklahoma State Department of Health (OSDH) and the Office of Management and Enterprise Services (OMES). Leaders from HHS cabinet agencies initially came together in June of 2016 to prioritize health issues and determine the first Health 360 priority topic – obesity was ranked as the most important health issue to focus on for the project. Leadership also learned how to use the Delivery process, which is a systematic process through which system leaders can drive progress and deliver results. The Delivery process was also used for the creation of Oklahoma Works.

The OSDH project team, using the Delivery methodology, created the Health 360° process to help guide the project. Process steps were as follows:

1. Research and create a compendium of evidence based practices and policies that are scored on level of effectiveness
2. Build an inventory for state agencies to document current policies and process related to a specific health issue

3. Compare inventories to a compendium of evidence based practices and policies and assign a score to each inventory
4. Develop recommendations for the Governor for investments, programs, and policies

The project team grew to include OSDH obesity and statistical analysis staff from the OSDH Center for the Advancement of Wellness (CAW). The CAW and project management staff worked together to build the inventory and create the compendium of evidence. Using the compendium of research, the team identified a stakeholder group that consisted of state agencies whose work could potentially affect obesity. Leadership from these agencies were invited to the Health 360° kickoff meeting which took place in December 2016. Each agency was asked to spend the next few months reviewing their programs and policies that either directly or indirectly relate to obesity, then fill out the inventory with the information they gathered. Each inventory was sent back to the OSDH CAW team, analyzed, and scored. The CAW team also worked with experts from the Centers for Disease Control and Prevention and state obesity researchers and experts to develop recommendations to share with each agency.

Stakeholders were reconvened in August of 2017 to review the results of the inventories, hear recommendations given by the expert group, have a candid discussion about their thoughts, and share their recommendations. This report details each component of the Health 360° process, the August stakeholder meeting, and the final set of recommendations to improve obesity across the state.

COMPENDIUM AND PROCESS

The comprehensive obesity compendium was developed by performing a thorough online search for evidence-based obesity prevention and treatment policies and programs. Led by CAW staff with content expertise, the purpose of the compendium was to have a standard set of research including articles, policies, and programs that were shown to be evidence-based and effective. This set of research could then be used as a baseline for the state to compare current obesity programs and policies against. The research standards are further explained in the inventory and scoring tool process section of this report and can also be found by reviewing the scoring matrix in appendix A.

While many research articles and policies were included in the compendium, five primary sources were utilized because of their national recognition for providing the most sound research and evidence for public health interventions and policy-making decisions. These five sources were also ranking physical activity, nutrition, and obesity interventions by level of effectiveness. Each source had research standards consistent with, or more stringent than, the research criteria for this initiative. The primary sources were: The Community Guide, The County Health Rankings & Roadmaps, The Harvard Obesity Prevention Strategies, The Centers for Disease Control and Prevention, and the National Association of County and City Health Officials. These five sources yielded 92 programs and/or policies that have scientific evidence to support their impact on obesity, either through treatment or prevention. These programs and policies within the compendium were then organized into several categories.

Figure 1. The Social Ecological Model. This figure depicts the levels and descriptions of each level of the Social Ecological Model. Retrieved from: http://www.ecu.edu/cs-dhs/healthaccess/images/social-eco-model.gif

Social Ecological Model

The first category was the level of the social ecological model (SEM) they primarily impact. The social ecological model is a systems model with multiple bands, or categories of influence.[1] These influences are theorized to contribute to decision making around health, and are thus widely used to design programs and layers of intervention to influence healthy behaviors. Model categories are as follows: individual level, interpersonal level, organizational level, community level, and public policy level. A more detailed description of each category is shown in figure one. The SEM was used to ensure similar programs are being compared once the programs and policies are scored. Following this method also helped the project team to categorize similar interventions that can then be interchanged at the correct level and appropriately spread across the social ecological model to ensure impact of interventions. The breakdown of how many programs were categorized by each level of the SEM can be seen in the figure two. A principle of the SEM is that each level of the spectrum must be addressed to effectively impact such a complicated issue as obesity.

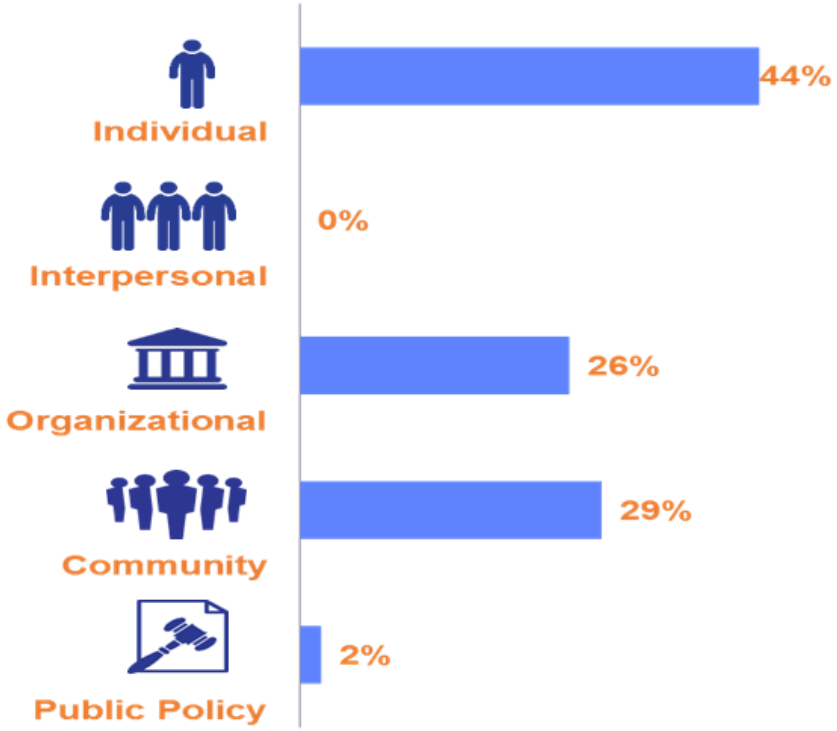

Figure 2. Strategies by Social Ecological Level. This figure depicts the number of programs categorized into each level of the Social Ecological Model.

State Stat Areas

The second category programs and policies were organized into was by how each aligned with the four priority areas used by the Health and Human Services Cabinet to group health efforts across the states. These four areas are often referred to as the "state stat buckets". The state stat buckets are used on the Oklahoma State Stat website to provide citizens details on health outcomes and dollars spent for health issues and programs. The project team used the state stat categories to help define areas of effort for each program or policy reported in the inventories completed by state agencies. Definitions of each state stat area are provided below:

Access

Access to health care means having "the timely use of personal health services to achieve the best health outcomes" [2]. Attaining good access to care requires three discrete steps:

- Gaining entry into the health care system
- Getting access to sites of care where patients can receive needed services
- Finding providers who meet the needs of individual patients and with whom patients can develop a relationship based on mutual communication and trust

Health care access is measured in several ways, including:

- Structural measures of the presence or absence of specific resources that facilitate health care, such as having health insurance or a usual source of care
- Assessments by patients of how easily they can gain access to health care
- Utilization measures of the ultimate outcome of good access to care (i.e., the successful receipt of needed services).

Wellness

Wellness is the methods to avoid occurrence of disease either through eliminating disease agents or increasing the resistance of disease.[3]

Prevention

Prevention is the methods to detect and address an existing disease prior to the appearance of symptoms.[4]

Social Stability

Social Stability is the range of life structure and reliable routines that is protective against further situational hazards and helps maintain connections with social resources and societal expectations. The construct is commonly assessed as the product of steady social circumstances within a defined set of domains, e.g., housing, employment, social ties, sufficient income, and lack of imprisonment.

The number of programs within each state stat area is shown in Figure 3.

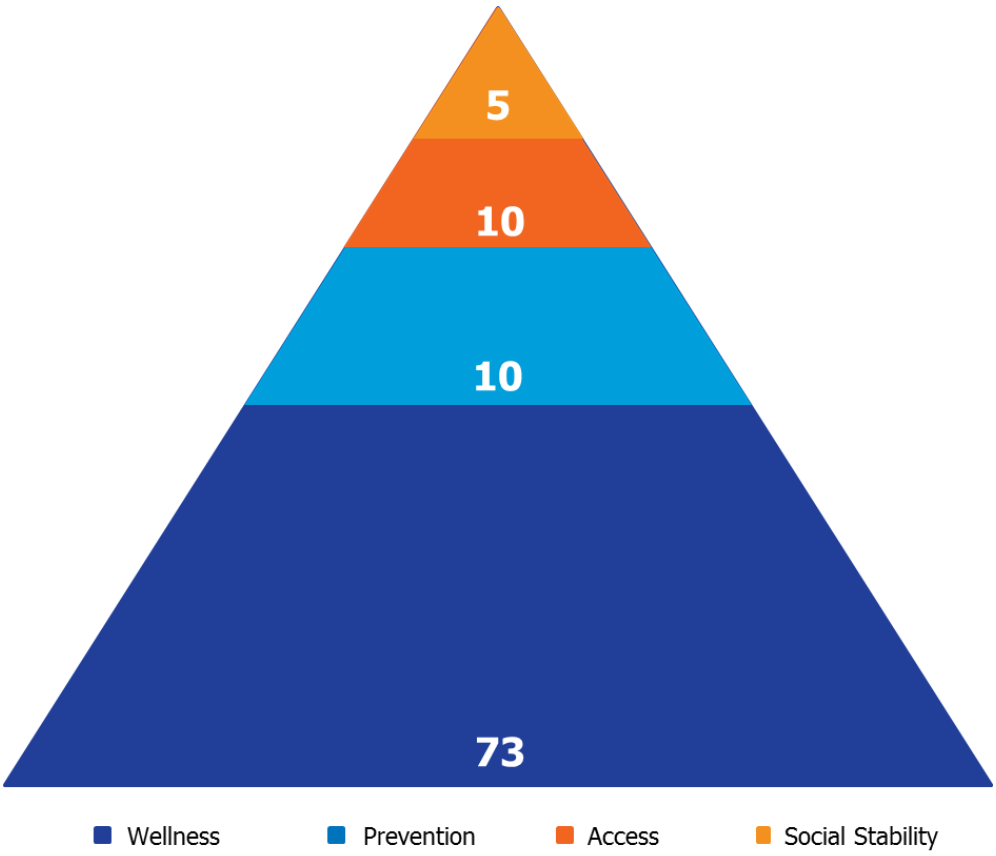

Figure 3. Programs by state stat area. This figure shows a breakdown of programs into state stat areas.

Age Group

Programs and policies within the compendium were also categorized based on the age level served. This perspective is important to consider for several reasons but primarily because it provides an analysis of which ages are receiving services and which are not; it also speaks to the importance of providing programs and policies across the lifespan. Five age categories were used: infant (birth to five); child (five to 12 years old); adolescent (13 to 18); adult (18 to 64); and older adult (65 and up). As depicted in figure 4, the majority of state programs and policies focus on child and adult categories.

Once stratified by social ecological level, the scoring matrix that was developed for this initiative was then applied to the programs. This yielded scores ranged in value from 59.4 to 99.0. Stratification and scoring allowed for a demonstration of which programs had the strongest evidence and most impact. The next section details the process for developing the statewide inventory and the aforementioned scoring matrix.

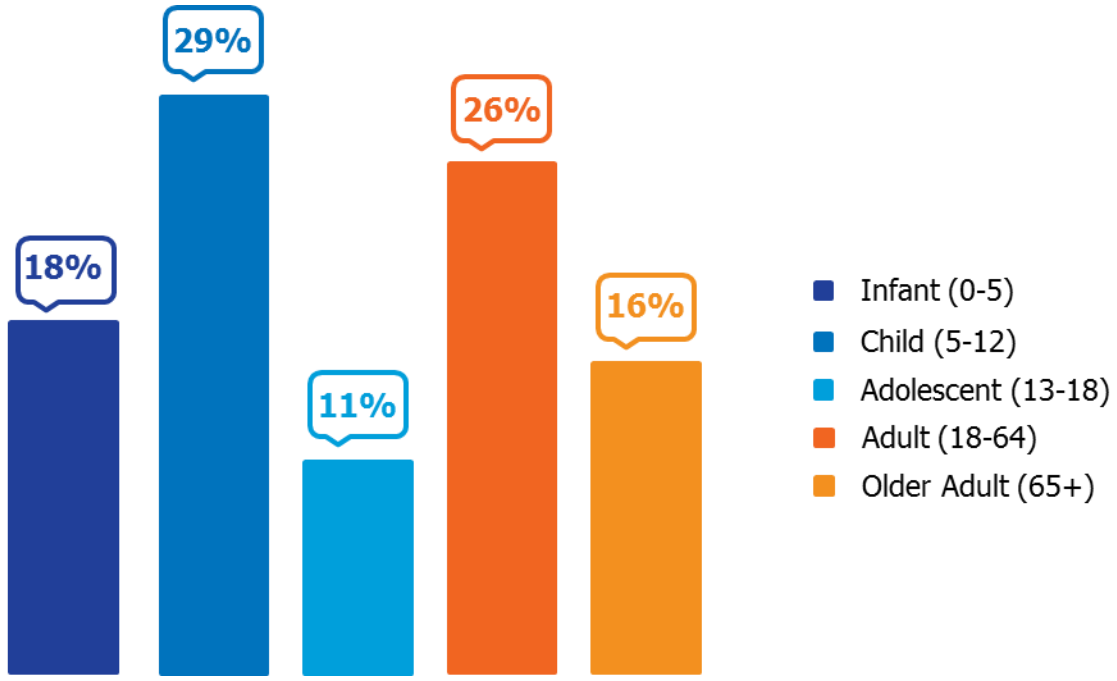

Figure 4. Percent of inventories by age category. This figure shows the percentage of inventories that fall into each category.

INVENTORY PROCESS AND SCORING

In order to address obesity as a health priority for Health 360°, it was imperative to establish a centralized source of information about statewide programs that impact obesity. As part of this effort, OSDH and OMES teams created a situational analysis tool, "Health 360° Statewide Inventory on Obesity," to collect data from state agencies that serve Oklahomans across the lifespan through programs that directly or indirectly address obesity. The tool was designed to capture information from these programs on available resources at their disposal and target audiences for these resources. Categories include in the tool are as follows: owner agency, partnering (state agency or organization) with owner agency, name of program/policy, description of program/policy, federal agency, geographic county where program is served, funding source, amount of funding (annually), time frame/duration, guiding laws/regulations/internal policy, demographic of population served, eligibility criteria for program, number of citizens served by program, performance metrics, key limitations, and other information. The tool also included a set of instructions that described each category and how to fill out the inventory (see appendix C for tool and instructions).

From January 2017 to April 2017, a total of 98 program inventories from 13 state agencies were submitted to OSDH. The information generated from these inventories formed the basis of programmatic and state level recommendations. These recommendations are intended to be a starting point to increase the effectiveness of existing programs in order to impact the state of obesity in Oklahoma.

On the basis of literature, another tool was designed for subject matter experts at OSDH to score the inventories using the following categories that were weighted equally: strength of evidence, effectiveness, and level of recommendation (see appendix A and B for the Health 360° Inventory Scoring Tool and the criteria in each category). Each reviewed inventory was generally assessed in terms of its effect on obesity and was assigned an evidence rating based on the quantity, quality, and findings of relevant research. These evidence ratings were developed by the University of Wisconsin Population Health Institute and include: scientifically supported, some evidence, expert opinion, insufficient evidence, mixed evidence, and evidence of ineffectiveness.

Additionally, each reviewed inventory was assessed for effectiveness by using criteria that was adapted from a tool by Missouri Foundation for Health to assess obesity prevention programs. The criteria for effectiveness includes: population reach, fidelity of the program to evidence-based interventions; program's ability to demonstrate that it has processes and procedures in place to measure project effectiveness, addressing populations with health disparities, and degree to which the program effectiveness is demonstrated by its own internal evaluation results.

Finally, each reviewed inventory was assessed in the context of usefulness and benefit and was assigned a level of recommendation based on a classification system utilized by the American Heart Association for its 2012 scientific statement on "Population approaches to improve diet, physical activity, and smoking habits". The levels of recommendation include: not recommended, low recommendation, moderate

recommendation, and high recommendation. The inventory scores ranged from 25%-92%, with an average statewide score of 68% for all 98 inventories. All inventories were also aligned with the compendium to determine the social ecological level the program or policy submitted fell under. Determining the social ecological level was important to analyze because the details show the levels that we are investing in versus the levels the research says we should invest in. Each program submitted within each inventory also received an age group classification based on the age group they served (see figure 4). The social ecological level as well as the age group served had no bearing on the overall inventory score.

Several limitations to providing an accurate picture of obesity efforts and funding for those efforts occurred throughout the inventory and scoring process. One of the most crucial limitations was the lack of budget information provided within the inventories that were submitted. Many state programs had no budget information they could provide regarding their program or policy because many of the programs were not classified as obesity programs in their agency budgets.

Another issue that was presented was the lack of program or policy details. Agencies were asked to provide as much detail as possible about their programs and policies in order to receive a more accurate score; however, many inventories lacked details about their programs and how they were created. Additionally, many programs could not provide details about the number of people they reach or the type of evaluation method used to determine if the program or policy is effective. The final limitation noted was that many agencies did not initially include some of their programs as they did not see the connection from the program to obesity. Obesity staff within OSDH met with several agencies to help complete the inventory and identify programs that relate to obesity.

AUGUST 23RD STAKEHOLDER MEETING

On August 23rd, 2017 agency leadership from all sectors were invited to review the statewide inventory results. The meeting was facilitated by OMES and OSDH, and presentations were given by the Deputy Secretary of Health and Human Services Julie Cox-Kain and staff from the Center for the Advancement of Wellness at OSDH.

The meeting objectives were as follows:

- Review the Health 360° project efforts
- Review the Health 360° compendium and evidence base and discuss alignment with state stat
- Review statewide inventories for obesity
    - Process for developing the compendium and scoring process
    - Review of scoring
- Identify high level recommendations
- Facilitated discussion around addressing recommendations
    - Determine the gaps and how to address and prioritize efforts
- Develop recommendations related to Access, Prevention, Wellness, Social Stability

During the first session, stakeholders were given a brief presentation about the Health 360° project and the Health in All Policies approach to improving health outcomes. Statewide obesity statistics were shared to illustrate the enormous health and financial burden obesity has on our state. Additionally, stakeholders learned that several sectors impact health, such as: transportation, housing, education, tourism and recreation, and commerce. They also learned how we can work together to improve outcomes by implementing a coordinated approach and that the Health 360° project was the first step in that coordinated approach. The Health 360° project phases of work were also reviewed. Stakeholders were able to look at the entire lifecycle of the project up to the current phase – recommend improvements.

The next session included specific details about each phase of work, starting with the creation of the compendium of evidence. Information was shared about how existing literature was incorporated into the compendium, and on how each compendium item was categorized and scored. Stakeholders learned about the descriptive compendium categories of age and state stat areas as well as the other elements used in the compendium.

The inventory scoring process was then shared with stakeholders. It was explained that each state agency provided an inventory of all of their programmatic and policy initiatives related to obesity. Each inventory then was assessed for alignment with the evidence-based programs and best practices for addressing obesity identified in the compendium. Inventories were scored based on their alignment to each category in the compendium (see appendix A for scoring tool).

Findings from state agency inventory evaluation were shared next. Results showed that a majority of the inventories align with evidence based obesity programs, as depicted in figure 5. Results also indicated that the largest portion of the budget for obesity is spent on evidence-based programs, as seen in figure 6. A majority of the programs and/or policies reported in the inventories focused on the individual level of the social ecological model, and public policy level programs use the largest portion of the budget, as seen in figures 7 and 8, respectively. Average inventory scores were also presented; the highest score was in strength of evidence and the lowest in internal evaluation. Inventories with lower scores also were found to spend less money on their programs or policies. Those who spent more had substantially higher scores.

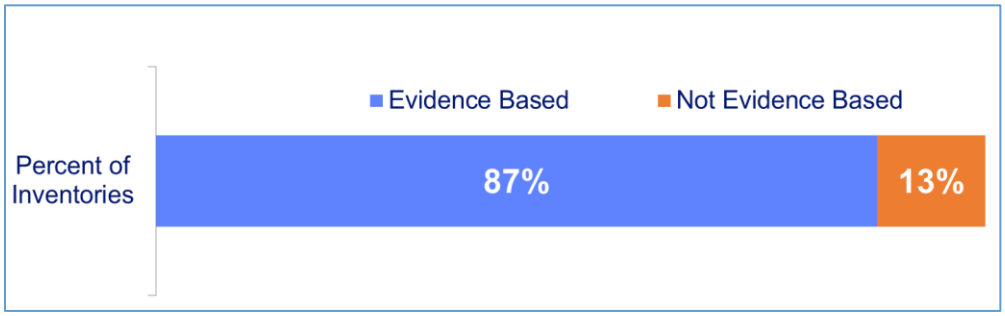

Figure 5. Percent of state inventories following evidence- based practice for obesity.

Figure 6. Percent of budget invested in evidence-based programs and policies for obesity.

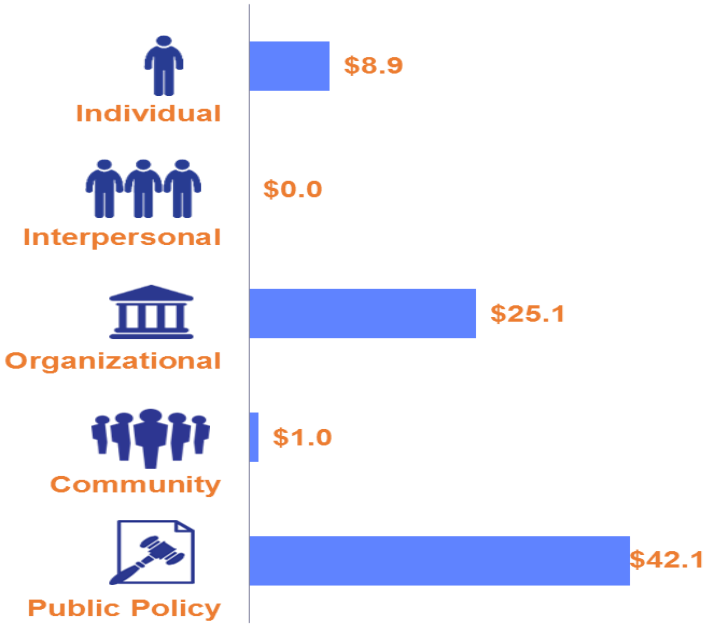

Figure 7. Amount of budget spent, in dollars, categorized by social ecological level.

The final portion of the session was spent reviewing the recommendations made by the expert panel. The expert panel included state obesity researchers and staff from the Division of Physical Activity, Nutrition, and Obesity within the Centers for Disease Control and Prevention. The panel was given the compendium of research and the statewide inventories before they were scored. They were asked to review each inventory and make recommendations based on evidence and utilizing the compendium. These recommendations were grouped into two categories – programmatic recommendations and state level recommendations. The stakeholders were advised that the recommendations were only preliminary and that their input was imperative in completing the process of recommendations development.

The next session of the meeting was a facilitated group discussion regarding the evidence presented. Stakeholders were asked to consider the evidence presented and the recommendations given by the expert panel. The discussion was open and stakeholders were to freely share their thoughts throughout the discussion. Three questions were asked – Based on the evidence presented: 1) What did you notice?; 2)What do you think is missing?; and 3) What recommendations do you have? The feedback is recorded below.

1) Programs that were relevant across the lifespan were represented as such.
2) Received information about programs that were evidence based but did not receive the evaluation. Programs were evaluated on a scale of 1-3.
   a) 1 - No evidence
   b) 2 - Some evidence, could be strengthened
   c) 3 - Best practice
3) Discussed implementing programs based on data. Are we evaluating the programs to make sure they are effective?

4) Discussed the difference between the definition of wellness and prevention. Wellness described as primary prevention. Prevention is described as secondary prevention. If wellness is the primary prevention, then what is prevention?
    a) Prevention is trying to prevent obesity in people that are becoming overweight. How do we prevent people from becoming obese in the very beginning?

In session four participants conducted a calibration activity by answering two questions; "What percentage of our resources/time should we spend on different sections of the lifespan?", and " Where within the lifespan should there be more or less emphasis?". The lifespan is divided into five segments: Infant, Childhood, Adolescence, Adult, and Older Adult. The feedback was recorded and then compared to the actual breakdown from the submitted inventories. The feedback is recorded below.

What percentage of our resources/time should we spend on different sections of the lifespan?

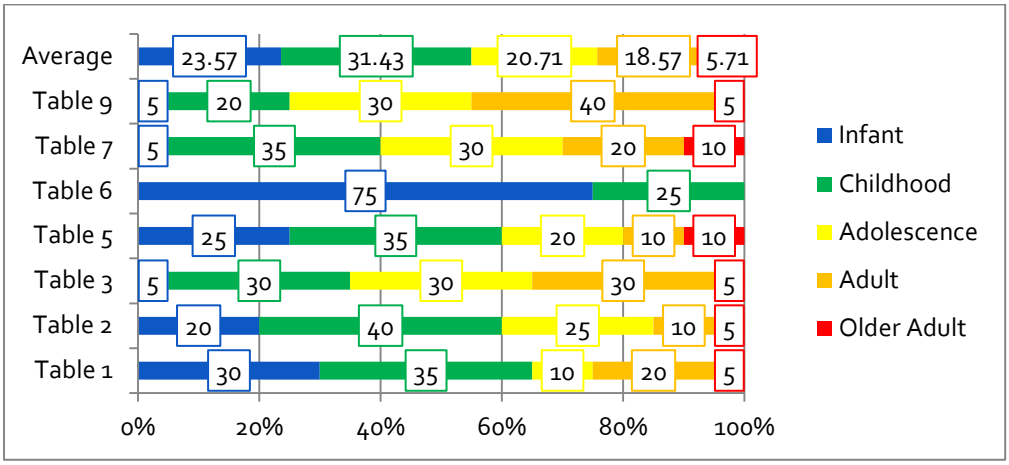

Figure 9. Allocation of resources activity results.

Each group was asked to share their thoughts once they completed the calibration activity. Statements from each group are recorded below:

- 12-14% of WIC kids are at the 95 percentile on weight even in the infant category
- Adolescence is important
- When focus is on one child, you focus on the family; therefore, infant and children (categories) aren't just babies, it's the whole family
- Healthy choices for children can potentially affect the entire family and improve outcomes for the family

Additionally, the groups shared any feedback or thoughts they had regarding how resources are allocated.

Investment balance (Where within the life span should there be more/less emphasis?)

- Surprised and a little disappointed that most of the programs focused on the individual, and not more interpersonal
    - Many habits that go into the way we eat are influenced by the family
    - With young people, often times eating habits are influenced by friends
    - Given the power of peer and family influence, we'd like to see more programs there
    - Evidence also indicates that programs that focus on the individual aren't as cost effective
- Shocked that 0% of programs are focused on interpersonal
- Surprised at the number of agencies that didn't participate in the inventory
    - Those agencies not submitting their information also skews the data
- Concerns with 75% of the inventories falling into wellness instead of the other areas of Prevention, Access and Social Stability
- A lot of spending across the lifespan, but most evidence is focused on child and infant.
    - Maybe there should be more of a focus there (on child and infant)
- Obesity is a symptom, not the root cause
    - Look more at trauma and informed care studies
- Public health industry uses a lot of jargon, and because we're not all calling it the same thing, we miss programs because we aren't calling it the same thing
- Public policy level programs used the largest portion of the reported budget
- Need to focus on interpersonal and child population
- Use evidence based programs
- Cooking at home is an emphasis in the WIC program; however, number of participants is declining.
    - Look at better evaluation for money being used in the most effective ways
- If we look at programs from a disability perspective, is there another way that disability is categorized? Funding for specific disability?
- Need a list of agencies who did participate in the inventory so we could have a better idea about the budgeting documentation
- Is it possible to get information and data from private/public medical programs? To look for feedback about interventions and what is working
    - Example: obesity being a result of a medical condition, stress being released, inactivity and diet, asking for more information about effectiveness of interventions, such as geriatric surgery
    - Focusing on prevention for a child, and other children in the family, that program actually targets the whole family (OU Children)
        - Possible that focusing on the family is missed by the way the program is described as focusing on a child; in both medical institutions as well as programs based toward children
- Regarding the majority of inventories focusing on the individual level, and public policy only being 2% of that; recognizing that to make an impact we have to hit every area
- Barriers with addressing public policy in our state. This group could brainstorm public policy initiatives

STAKEHOLDER RECOMMENDATIONS

During the final session of the stakeholder meeting, participants were broken out into four groups with each group focused on a topic area. Provided with handouts with obesity data and programs by state stat area, each group was asked to provide topic-level recommendations. Each group was asked to answer specific questions about impact and frequency, cost effectiveness, stakeholders, disparities and gaps, and policy and regulations. The facilitated discussion was led by the Office of Partnership Engagement Representatives from OSDH. The discussion topics are listed in bold under each state stat area.

Discussion Topics:

1. Impact and Frequency
    a. It's high impact—Is it happening anywhere?
    b. It's low impact—is it happening too much?
2. Cost Effectiveness
    a. What is most cost effective?
    b. Where is there duplication of effort?
    c. What should we be doing that we are not doing?
3. Stakeholders
    a. Who is missing from the discussion?
    b. Who has the decision making authority/responsibility?
4. Disparities and Gaps
    a. How can disparities and gaps be addressed?
5. Policy and Regulations
    a. Should regulations or laws change to make an impact? At what level?

Small Group Stakeholder Feedback

Access

1. **Impact and Frequency**
    i. **It's high impact—**
        1. High number of people plus extent
        2. High population reach through health coaching, such as through employee or student programs
        3. Strong evidence base
        4. High knowledge base
        5. High participation, especially when there is an incentive
    ii. **It's low impact—**
        1. Not cost effective

2. Low intended population reach
    a. Those who choose to participate are usually the ones who are already striving to improve health
3. Low policy emphasis
4. No performance outcomes
5. Education with no access
    a. The environment needs to support the behavioral change being recommended

2. Cost Effectiveness

iii. **What is most cost effective**?

1. Number of people received for lowest cost
2. ROI
3. Role of insurers?
    a. Preventing and reducing obesity should reduce other health problems and insurers should take a more active role

iv. **Where is there duplication of effort**?

1. Health Department and State Agencies - The largest organizations have the most difficulty with internal communication, as well as across different agencies.

v. What should we be doing that we are not doing?

1. More collaboration and information sharing is needed, specific to obesity

3. Stakeholders

vi. What is needed-

1. Outreach to partners
    - Non-traditional partners including private insurers and other businesses
2. Representation of disparate groups
    - Partners who might not seem obvious, but are essential to improve outreach (for example the Certified Healthy Congregations program)
    - In larger terms; urban vs. rural, for example
    -
3. Tribes

vii. Decision makers-

1. Legislators
2. Private Insurers
3. Local / Rural care providers

viii. Others Needed-

1. Non-traditional partners
2. Non-Profits
3. Education (nurses, referral, clinics, nutrition)
4. Medical Providers (overweight/obesity are underlying issue for other health problems- should be addressed consistently)
5. Insurers (payers)

4. **Disparities and Gaps**
    ix. **How can disparities and gaps be addressed**?
        1. Allocation of resources – data driven
        2. Consider geography with regard to those living in rural areas vs. urban and the lack of accessibility to resources

5. **Policy and Regulations**
    x. Recommendations
        1. Health education should be mandatory in schools
        2. Mandates must be funded - If school or other policies/programs are required, ensure that they are funded!
        3. Future Affordable Care Act changes could impact funding
        4. Funding federally qualified health centers (FQHCs) consistently - Continual and consistent FQHC funding can assist in addressing obesity in areas where there are limited resources

Wellness

a. **Impact and Frequency**
    i. It's high impact—
        1. Reach large population (all state employees for example)
        2. Multiple contacts – weekly, monthly recurring - Reinforcement of learning
        3. Wellbeing embedded in culture – changing culture
        4. Backed by strong policy and regulation
    ii. It's low impact—
        1. Opposite of high
b. **Cost Effectiveness**
    i. What is most cost effective?
        1. Sustainable
        2. Reach family unit
        3. Evidence based
    ii. Where is there duplication of effort?
        1. Summer feeding programs – 2 different programs and funding sources designed differently
        2. Gardens at schools – little collaboration. Need to work together more.
    iii. What should we be doing that we are not doing?

c. **Stakeholders**
    i. **Who is missing from the discussion**?
        1. Address culture (toxic supervisors actively dissuading employees from using healthy/active options throughout the day, such as using the gym during lunch, etc.)
        2. Bring in stakeholders to assist in framing the issue / program

3. DHS meeting with SDE and USDA to get school gardens started and used more frequently to assist families in getting the raw, whole food then need
    a. Nutritious, raw, whole food is expensive, and this may be a good alternative
4. Issues and information need to be framed and pitched to directors and legislators differently than it would be to employees

ii. Who has the decision making authority/responsibility?

1. Directors
2. Legislators

d. Disparities and Gaps

i. How can disparities and gaps be addressed?

1. Remove the stigma of using state assistance programs
2. Remove hassle of registering
3. Starting to see reduced participation in government programs
4. Some may not know they are eligible for assistance programs
5. Employees don't like to be prodded by employer to do healthy things
6. Address toxic culture
7. Employees often see incentivized programs as employers looking at how much a sick employee is costing the organization.
    a. Not actually caring about the employee as a person
8. What is wellness? (question overall)
9. More expensive for whole food, processed food cheaper
10. School gardens through/with SDE
11. Draconic whole foods disparity / access (school garden instead)
12. USDA programs. Chickasaw Nation programs.

e. Policy and Regulations

i. Should regulations or laws change to make an impact? At what level?

1. Bill 7799 was vetoed (admin leave for state employee fitness)
2. Disconnect between what politicians say and do –policy piece does not always understand implementation
3. State agencies operate in siloes in terms of policy – trickle-down effect. Need policy to work together for the good of everyone.

Prevention

a. Impact and Frequency

i. It's high impact—

1. DOC diets should reach all inmates
2. Reach into all OJA homes on fitness and diet
3. Access to all youth for detecting diets, but individuals get adequate service
4. Individualized plans for those needing more intense plans
5. More nutritional counseling
6. Assessing dietary needs

ii. It's low impact—is it happening too much?

b. **Cost Effectiveness**
    i. **What is most cost effective?**
        1. More population approach
        2. Price per person / net return
        3. Partner on similar programs and share evidence based (OHCA, DOC, EGID)
        4. Varies on the reach on population
    ii. **Where is there duplication of effort?**
    iii. **What should we be doing that we are not doing?**
        1. Sharing of resources
        2. Use same assessment tools across the board
c. **Stakeholders**
    i. **Who is missing from the discussion?**
        1. Hospitals
        2. Department of Insurance
        3. Higher Education
        4. State Department of Education
        5. Business
        6. Military
        7. Insurance payers (OHCA, HC, BCBS etc.)
    ii. **Who has the decision making authority/responsibility?**
d. **Disparities and Gaps**
    i. **How can disparities and gaps be addressed?**
        1. Tribes
        2. Cultural groups
        3. Rural vs urban
        4. Access to care vs no access
        5. New/recent immigrants vs those that have been here a while
e. **Policy and Regulations**
    i. **Should regulations or laws change to make an impact? At what level?**
        1. Diabetes Education will be covered by insurance in 2018
        2. Adequately funding state agencies to be able to provide the evidence based programs
        3. Having insurance coverage for diabetes education. Work with them to get this covered.
        4. Food procurement policies that meet guidelines
        5. Work with insurance to cover all/part of bariatric surgeries

Social Stability

a. **Impact and Frequency**
    i. **It's high impact—**
        1. Reach
        2. Cost effective
        3. Targeted outcome
        4. Geographic location
        5. Policy implementation
    ii. It's low impact—is it happening too much?
b. **Cost Effectiveness**
    i. **What is most cost effective**?
        1. ROI
    ii. **Where is there duplication of effort?**
        1. Lack of available information
    iii. **What should we be doing that we are not doing?**
        1. More coordination of programs
c. **Stakeholders**
    i. **Who is missing from the discussion?**
        1. Reaching out / follow-up with agencies that didn't participate
        2. Medical organizations and private agencies
        3. State agencies that didn't participate
        4. Highway commission
        5. Community members
        6. More coordinated effort of agencies
    ii. **Who has the decision making authority/responsibility?**
        1. Executive directors
        2. Agency leadership
        3. Legislators
d. **Disparities and Gaps**
    i. **How can disparities and gaps be addressed?**
        1. Focus on rural communities
        2. Tribal
        3. Identify sector gaps
        4. Coordinated agency efforts
        5. Identify domain gaps
        6. Identify DOJ gaps
        7. ACES
e. **Policy and Regulations**
    i. **Should regulations or laws change to make an impact? At what level?**
        1. Infrastructure
        2. All-level policy change

3. Make health a priority in all policy
4. Make health a priority (relevant) in all agencies
5. Goal alignment between agencies
6. Help agency leaders understand how health relates to their mission
7. Find common ground and goals
8. Enforce joint use agreements
9. Must fund mandates
10. Provide a collective state voice to inforce regulations for federal funding
11. Money!

A general overview of themes and observations from all groups is detailed in the following list:

- DEEP is on interim study agenda for upcoming legislative session
- Two work groups – Health360° and OHIP – nice to see public/private stakeholders need to be at the table
- Funding for evidence based programs to be implemented
- ACES is an important discussion for us to lead
- We must inform leaders on how ACES impact a person for his/her entire life
- Mentioned many times that agency leadership and policy leaders need to be at the table
- Develop these recommendations, and frame in such a way that we can have communication about policy
- Spending more time and energy on the younger group (families)
- Can generate many tasks and recommendations for OHIP from today's conversation(s)
- Critical dialog and information for decision makers
- Removing the stigma of receiving help from government agencies
- Sometimes within government agencies things are structured in a way that it actually limits access to the people who need assistance the most
- Need to work on connecting people to services
- An adverse childhood affects a child's way of life into adult hood.
- How can we be intentional about how we work together?

FINAL RECOMMENDATIONS

Obesity is one of the fastest-growing public health concerns. According to a 2014 study conducted by The McKinsey Global Institute (MGI), 50 percent of the world's population will be obese by 2030.[6] The increase in obesity also contributes to several chronic conditions, such as diabetes, heart disease, and hypertension. Oklahoma currently ranks eighth in the nation in obesity with an adult obesity rate of 33.9 percent – higher than the national average 29.8%.[7] The youth obesity rate in Oklahoma of 17.3 percent is also higher than the national average and places Oklahoma at sixth in the nation in youth obesity.[8] Several factors contribute to the obesity epidemic in Oklahoma, including but not limited to: sedentary lifestyles, low consumption of fruits and vegetables, lack of access to healthy fruits and vegetables, poor built environment, lack of access to places to be physically active, and environmental stressors.[9]

The following recommendations were developed through reviewing statewide obesity efforts, capturing stakeholder feedback, reviewing evidence-based practices and policies, and gathering subject matter expert feedback from state and national experts.

Cross-Sector Collaboration: Recommendations included require sectors to work together to improve obesity outcomes in Oklahoma

- Pursue a gubernatorial resolution for a Health in All Policies taskforce, which would include leadership from health and non-health state agencies working together to review and consider health in all policy making decisions.

- Strengthen integration across all sectors to improve programming and interventions aiming at policy, systems, and environment in the early childhood setting. Research shows that investing in early childhood programs and policies to prevent obesity will have a better return on investment and lead to a healthier life for those children over their lifespan.

- Increase collaboration and information sharing across agencies specific to obesity (e.g., resources; utilize same assessment of similar/same programs; goal alignment) to reduce duplication of efforts.

- Closely monitor budgets of programs targeting obesity by establishing standardized reporting procedures to allow for cost analysis of overall state spending on obesity.

- Develop food service guidelines that are consistent with obesity prevention and reduction standards for all individuals being served. Consistent, healthy food service guidelines regardless of health status can significantly increase the health of the population being served, which can help to decrease future negative health outcomes and lower future healthcare costs.

- Highlight and enhance agency partnerships with Oklahoma Works to increase awareness about

employment and education opportunities. Employment and education align with other Governor initiatives and support healthy behaviors.

Resource Allocation: Recommendations included focus on how funds can be allocated in the most efficient manner to realize health improvement

- Build in strong evaluation measures to ensure documented success of programs, and allocate resources based on the results.
- Continuous quality improvement and budget analysis should be a part of every program receiving state resources.
- Target populations with higher rates of obesity through specific programming and policies.
- Address adverse childhood events, which have shown to increase obesity, through home visitation programs.

Programmatic Recommendations: These recommendations detail changes that could be made to specific state programs to improve obesity outcomes within the populations served by these programs

- Focus on longer term policy, systems, and environmental interventions and reduce the number of single events/programs.
- Develop and fund a multi- component worksite obesity prevention program for state employees.
- Increase funding for Safe Routes to School. Studies show the program is an economically sound investment that can decrease health care costs and school transportation costs.
- Enhanced marketing of products and programs available to state employees (e.g., THRIVE) could help the programs gain recognition and enhance utilization.
- Health education should be mandatory in schools so that children, starting at a young age, know about healthy eating and physical activity.

CONSIDERATIONS AND NEXT STEPS

The Health 360° project revealed several notable considerations as our state continues to work on obesity reduction. First, no one intervention, solution, or sector can prevent or decrease obesity on its own. It is important to consider multiple solutions in order to combat the complex, systemic issue of obesity. It is also necessary to continually examine programs and policies to ensure they are innovative. Continual research on the most promising practices for preventing and decreasing obesity must occur in order to combat the epidemic. This is also true for other pressing health issues.

There must also be support from the highest levels of state government in order to ensure a true commitment to work across sectors and consider health as in important factor that affects all areas. As explained in the social ecological model, health is affected by many other factors; the same is true for the other areas of improvement outlined by Governor Fallin in her 2014 State of the State address. A prioritization for health in policy-making decisions should be realized, followed by encouragement from cabinet level leaders to their respective agencies to consider health in their planning and decision making.

The Health 360° process helped to identify areas of improvement within the work being done for obesity prevention. The need for regular internal evaluation of programs and policies was seen as one of the most important areas of improvement. The low overall statewide inventory scores in the area of project effectiveness also indicate the need for several changes. It is important to consider that project effectiveness relates to how well the model being used is being followed, and the intervention is being delivered as it was intended. Another factor that affects project effectiveness is the number of citizens reached through the work being done. For obesity and other health issues to move in a downward trend, it is important to consider the implementation of projects and programs that have a greater impact on population health and are not solely focused on the individual. While individual interventions are often highly effective, they are often costly and not sustainable. Using resources to implement programs and policies that have a larger impact with significant evidence to show cost effectiveness will help our state move in the right direction for reducing negative health outcomes for the population as a whole.

Ongoing next steps for the Health 360° project include offering assistance to those agencies that completed statewide inventories and are seeking to improve their program delivery. Another next step for the project is to consider additional health issues to undergo the Health 360° process and engaging state agencies in working towards inventorying and addressing improvements for that health issue. The final step in for the project is to seek gubernatorial support as well as cabinet level support for implementation of the recommendations shared in this report.

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Appendix A: Inventory Scoring Matrix

Category	Criterion	[Intervention Name]				
		Score	Percent	Weight	Weighted Percent	Scoring Notes
Strength of Evidence (1-6)	Evidence of Ineffectiveness (1)					
	Mixed Evidence (2)					
	Insufficient Evidence (3)					
	Expert Opinion (4)					
	Some Evidence (5)					
	Scientifically Supported (6)					
	Total					
	Points Possible	6	0.0%	33.3%	0.0%	
Effectiveness (1-3)	*Population reach (# served/# possible) - (1=1-33%, 2=34-66%, 3=67-100%)*					
	Fidelity of the program to evidence-based interventions *or mandated standards*					
	Program can demonstrate that is has processes and procedures in place to measure project effectiveness					
	Address populations with health disparities					
	Degree to which the programs effectiveness is demonstrated by its own internal evaluation of results					
	Total					
	Points Possible	15	0.0%	33.3%	0.0%	
Level of Recommendation (-1 -2)	Not Recommended (-1)					
	Low Recommendation (0)					
	Moderate Recommendation (1)					
	High Recommendation (2)					
	Total					
	Points Possible	2	0.0%	33.3%	0.0%	
	Grand Total	0	0.0%	100.0%	0.0%	
	Total Possible	23				

Appendix B: Scoring Categories and Criteria

Inventory Scoring Categories/ Criteria	Definition
Strength of Evidence	
Evidence of Ineffectiveness	Strategies with this rating are not good investments. These strategies have been tested in many robust studies with consistently negative and sometimes harmful results
Mixed Evidence	Strategies with this rating have been tested more than once and results are inconsistent or trend negative; further research is needed to confirm effects
Insufficient Evidence	Strategies with this rating are recommended by credible, impartial experts but have limited research documenting effects; further research, often with stronger designs, is needed to confirm effects
Expert Opinion	Strategies with this rating are recommended by credible, impartial experts but have limited research documenting effects; further research, often with stronger designs, is needed to confirm effects
Some Evidence	Strategies with this rating are likely to work, but further research is needed to confirm effects. These strategies have been tested more than once and results trend positive overall
Scientifically Supported	Strategies with this rating are most likely to make a difference. These strategies have been tested in many robust studies with consistently positive results
Effectiveness and Reach	
Population reach (# served/# possible) - (1=1-33%, 2=34-66%, 3=67-100%)	*Participation rate of individuals, adoption of clinicians and community settings as well as representativeness of individuals and settings included.*
Fidelity of the program to evidence-based interventions *or mandated standards*	The degree to which an intervention is delivered as intended by the program developers and in line with the program model.
Program can demonstrate that is has processes and procedures in place to measure project effectiveness	Based on the direction of effect on public health outcomes, evidence source, and context. Ineffective interventions or programs are those that consistently show null or adverse effects; show evidence of effectiveness but lack plausibility across one or more of the following criteria: reach, feasibility, sustainability, benefits, and costs.
Address populations with health disparities	Policies that are equitably implemented with the intention to serve the underserved or marginalized populations with the commitment to eliminate existing disparities.
Degree to which the program's effectiveness is demonstrated by its own internal evaluation of results	A regular examination of the worth, merit, or significance of the program, policy, or intervention that provides the evidence necessary for continuation.

Level of Recommendation	
Not Recommended	There is evidence and/or general agreement that the intervention is not useful/effective and in some cases may be harmful
Low Recommendation	Usefulness/efficacy is less well established by evidence/opinion. The intervention may be considered.
Moderate Recommendation	Weight of evidence/opinion is in favor of usefulness/efficacy. It is reasonable to perform the intervention.
High Recommendation	There is evidence for and/or general agreement that the intervention is beneficial, useful, and effective. The intervention should be performed.

Appendix C: Inventory Tool

Health360 Statewide Inventory on Obesity

* If you have any additional questions about a field, please see Instructions on Tab 2

Owner Agency	Partnering (State Agency or Organization) with Owner Agency	Name of Program/ Policy	Description of Program	Federal Agency	Geographic County Where Program is Served (Check all that apply)	Funding Source	Amount of Funding (Annually)	Time frame/ Duration	Guiding Laws/ Regulations/ Internal Policy	Evidence Base	Demographic of Population Served	Who- (Which citizens are qualified to be eligible for this service?)	Number of Citizens Served by Program	Performance Metrics/Evaluation Methods	Key Limitations	Other Info

Appendix D: Inventory Instructions

Owner Agency	Please indicate the agency that owns/administers this program.
Partnering (State Agency or Organization) with Owner Agency	Please indicate the any other agencies/organizations that partner/contribute to this program.
Name of Program/ Policy	Please indicate the common name of the program, and define any acronyms utilized.
Description of Program	Please provide a concise (2-3 sentences) description of the program, including key services provided.
Federal Agency	Please identify the agency or organization that oversees the program at the federal level, if applicable.
Geographic County Where Program is Served	Please use the drop down menu to identify the county/counties within the state that this program serves. If all, please select "All of Oklahoma."
Funding Source	Please indicate the source of the funding, whether its federal, state, or other-funded, and identify any federal or other agency that oversees the funds above the state level
Amount of Funding (Annually)	Please include an estimated amount of funding provided on an annual basis. Examples: if a program receives one-time funds of $6 million over 3 years, please indicate $2 million, with $6 million total. If a program receives $6 million on an annual basis year over year, please indicate $6 million.
Time frame/ Duration	Please indicate the frequency in which funds are received for the program and timeframe in which the funding could be used. Example: If the program receives annual funding of $6 million year over year, but the funds may be utilized over 3 years, please indicate Annual, with a 3 year duration.
Guiding Laws/ Regulations	Please indicate any federal, state laws or regulations that guide the usage of the funds.
Evidence Base	Please indicate if the program or policy is based on any research evidence or standards? If so, please explain.
Demographic of Population Served	Please indicate which demographic that this particular program impacts. If all, please indicate all demographic can be included. Options include (All Demographics and Populations Listed, White, Black or African American, American Indians and Alaska Natives, Asian, Native Hawaiians and Other Pacific Islanders, Hispanic or Latino Americans, Low Socioeconomic Status, Medicaid, Disability, Veterans, Pregnant Women, People located in Rural Areas, People with Co-Morbidities)

Who (Which citizens are qualified to be eligible for this service?)	**If the program has any eligibility criteria for individuals to utilize funds or services provided by the program, please summarize those criteria. Which citizens are qualified to be eligible for this service? For example, if the program is only for "1st year teachers" or "approved candidates" please indicate that in this field. If none exist, please indicate "N/A."**
Number of Citizens Served by Program	**Please report the number of citizens served by the program statewide.**
Performance Metrics/Evaluation Methods	**Please list any established performance metrics used to monitor or evaluate this program at the state or federal level. If you are evaluating this program, please describe your evaluation methods and how often you evaluate the program.**
Key Limitations	**Please briefly identify any key limitations that the program has that have not been identified in other cells in this spreadsheet.**
Other Info	**Please briefly provide any other relevant information regarding this program which would assist in understanding its purpose.**

Appendix E: Facilitation Staff

Statewide Performance Office | OMES

- Colleen Flory, Lead Facilitator
- Rachael Nalliah, Small Group Facilitator
- Ladd McGraw, Small Group Facilitator
- Kyle Bellingar, Small Group Facilitator

Office of Partner Engagement | OSDH

- Danielle Dill, Small Group Facilitator
- Jolena Graves, Small Group Facilitator
- Lana Shaffer, Small Group Facilitator
- Dusti Brodrick, Small Group Facilitator
- Maggie Jackson, Small Group Facilitator
- Sarah Johnson, Small Group Facilitator
- Louise Musselman, Small Group Facilitator
- Jessi Ryel, Small Group Facilitator
- Dennie Christian, Small Group Facilitator
- Brandi Straka , Small Group Facilitator

Appendix F: Small Group Discussion

Access

Facilitators	Participants
Louise Mussleman	Dwyna Vick – OHCA
Maggie Jackson	Jill Nobles-Botkin – OSDH
	Betty Thompson – ODAFF
	Jamie J Herrera – ODOC
	James Allen – OSDH
	Fahad Khan - OSDH

Wellness

Facilitators	Participants
Rachael Nalliah	Linda Cavitt - DHS
Kyle Bellingar	Irene Martin - OKDRS
	Nina Pratt - OESC
	Lena Clements - ODOT
	Kathryn Kitchen – OMES Thrive
	Alicia Lincoln - OSDH

Prevention

Facilitators	Participants
Dennie Christian	Lesli Blazer - DHS
Dusti Brodrick	Jonas Mata - TSET
	Yvon Fils-Aime – ODMHSAS
	Jenny Kelbach - OSDH
	Stephanie Uren - OSDH
	Janelle Bretten - OJA

Social Stability

Facilitators	Participants
Jessi Ryel	Nancy Bacon - OSDH
Sarah Johnson	Susie McEachern - ODCTE
	Ashley Weedn - OUHSC
	Lenae Clements - ODOT
	Adrienne Rollins - OSDH