Obesity Prevention in Morrow County, Oregon

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COUN 6785: Social Change in Action:
Prevention, Consultation, and Advocacy

Social Change Portfolio

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OVERVIEW

**Keywords:** Obesity; access to physical activity, depression, and exercise; Morrow County, Oregon.

**Obesity Prevention in Morrow County, Oregon**

**Goal Statement:** To prevent the continued increase of obesity by creating access to health-related activities in Morrow County, Oregon.

**Significant Findings:** Morrow County (OR), with a population of only 3400 people, has one of the highest rates of adult obesity in Oregon (Robert Wood Johnson Foundation, 2020). It also has one of the lowest levels of access to exercise opportunities in the state. Research shows that obesity increases rates of depression and other health related factors. Multicultural considerations are also evident as Morrow County (OR) is 36 percent Hispanic and there is evidence indicating Hispanics in the U.S. are experiencing rising rates of obesity (Salinas, et al., 2020). Interventions based on positive psychology and transtheoretical models have shown success in reducing body mass (BMI) and preventing obesity.

**Objectives/Strategies/Interventions/Next Steps:** Several prevention efforts should be implemented. First, increasing access to exercise opportunities, possibly through public/private partnership. Second, partnering with a local Hispanic/Latinx advocacy group to deliver services within this subgroup. Community coalitions formed to help educate and motivate within those locales should be established. An example would be using the current system Oregon has of each county have a coordinated care organization that helps provide a multi-faceted approach to prevention. Lastly, a system of pre- and post-prevention analysis should be instituted.
INTRODUCTION
Obesity prevention in Morrow County, Oregon

Morrow County, Oregon, is a county located in the north central part of Oregon, right along the Columbia River. The county’s industrial profile is a mix between large agricultural producers, longtime family ranches, and major tech companies like Amazon and Facebook. The largest town, Boardman, only has a population of around 3400 persons (2018), with several other smaller towns making up the rest of the county. Many of the subjects who work in Morrow County commute from several larger towns in adjacent counties. One result of this is that there are no open-to-the-public fitness clubs in Morrow County. Any access to organized fitness or even weight training must be accessed through the local school gymnasiums and this is limited due to liability reasons. In comparison, there are two liquor stores, three bars, and multiple fast-food locations within the county. This social change portfolio will examine the rising rates of obesity in Morrow County (OR), along with the lack of access to physical activity, specifically in males in this location.

PART 1: SCOPE AND CONSEQUENCES
Obesity prevention in Morrow County, Oregon

Morrow County (OR) has one of the highest rates of adult (20+) obesity in the State of Oregon, with 35 percent of its population qualifying as obese (Robert Wood Johnson Foundation, 2020a). In contrast, the state of Oregon has an average obesity rate of around 29 percent (Robert Wood Johnson Foundation, 2020a). From 2001 to 2011, the rate of obesity for females in Morrow County has grown over 21 percent, while that of males in Morrow County has grown
a staggering 30.4 percent (Insitute for Health Metrics and Evaluation, 2016). This tracks with the national rate of obesity in the United States which is 30.9 percent (United Health Foundation, 2020a).

According to the county health snapshot, Morrow County also has one of the lowest levels of access to exercise opportunities at only 55 percent, while the state average is around 88 percent (Robert Wood Johnson Foundation, 2020b). Between 2001 and 2011 females in Morrow County did increase their physical activity by 13.7 percent overall, but males continued a downward trend at 4.3 percent overall during that decade (Robert Wood Johnson Foundation, 2020b). This could lead to an assumption that inactivity is an issue for adult men in Morrow County.

The high rate of obesity and lack of physical activity presents us with a pressing public health issue. The United Health Foundation (2020a) says that obesity and lack of physical activity play a role in increased risk of such things as terminal illness, depression, anxiety, and diabetes. Roberts et. al, (2003) found a strong relation linking obesity with depression, and their study found support for a causal relationship that obesity was a precursor to depression. In Morrow County, residents report an average of 4.5 bad mental health days a month, which is near the top for the state of Oregon, which is at 4.8 days a month, which could be reflective of those mental health issues related to Morrow County having high rates of obesity (Insitute for Health Metrics and Evaluation, 2016). Recent research into physical activity also acknowledges a linkage between cardiovascular disease and depression (Huafu, et al., 2020).

These issues can cost a community both financially in increased medical costs and mental health supports. It was estimated that in 2008, obesity related costs in the United States were around 147 billion dollars (Finkelsten et. al, 2009). In the State of Oregon, mental health
supports are capitated under the Oregon Health Plan for community mental health programs. In Morrow County, the state pays around $379 per person in mental health supports, compared to the state average of around $249 dollars per person (Oregon Health Authority, 2016). If, as mentioned above, depression and obesity have a causal relationship, and depression contributes to mental health treatments, then this is one cost. As mentioned above, there is also a link to obesity and cardiovascular issues, which would require treatment and further costs from a medical treatment basis.

In summation, Morrow County (OR) also has an obesity rate higher than the state and national average. The above information shows the effects that obesity has on a community from a number of perspectives. Morrow County (OR) also has lower levels of physical activity than the state and national average. Physical inactivity is one of the main contributors to obesity (Gray, et al., 2018). A prevention goal would be to increase the opportunities for physical activity and the awareness of its benefits for adults in Morrow County. By building a community exercise center with workout room and equipment would be the first step. This exercise center would also be a location where public health could provide health and dietary classes open to the public.

PART 2: SOCIAL-ECOLOGICAL MODEL

An examination of the prevention goal from a social-ecological model involves looking at multiple protective and risk factors. Solmon (2015) points out that the social-ecological model is very important when it comes to increasing physical activity in a community, and that any measure to do so must take into account “multiple levels” to include the family unit, community
organizations, and community policies (p. 330). Therefore, we need to examine the factors that support and pose risk as related to the individual, the peer group, the community, and the cultural context.

One of the main family risk factors in Morrow County for obesity is economic. Evidence indicates that children living in poverty and with single mothers have higher levels of obesity (Augustine & Kimbro, 2013). In Morrow County, 14.7 percent of the population live under the poverty level, which is higher than the national average of 13.1 percent (Delliote, 2020). In 2018, 22 percent of children in Morrow County were part of single parent households (Federal Reserve Bank of St. Louis, 2018). With the above link of obesity and inactivity established, poverty would play a role.

A protective factor in community wide obesity prevention is within the schools. Swearer and Hymel (2015) highlight the effect that the peer influence has from a socio-ecological view, especially in the school setting. Regarding obesity, Bennet and Burns (2020) quote research that indicate schools are a natural location to support efforts to combat obesity. This is based on the amount of time that children spend in the school setting. Morrow County has graduation and attendance rates (89 percent) which is higher than the average for the state (76 percent) (Northeast Oregon Now, 2018). Swearer and Hymel (2015) point to peer influence as being crucial. This is also evident in obesity prevention efforts, as peer led activity events are more successful than those implemented by professionals (van de Vijver, et. al, 2020). Peer habits also influence obesity prevention in the area of nutrition habits (RAND Corporation, 2017).

Bennet and Burns (2020) further point out that obesity prevention efforts in schools need to have a level of outreach to the family. There is strong evidence that family influence can be either a protective or risk factor influencing obesity. For children, family status and even the
mother’s occupation can increase the risk of obesity (Dewan, 2017). This can also be a protective factor. Since physical activity is a mitigating prevention against obesity, research by Moore, et al, (1991) shows that family attitudes toward physical activity are one of the primary influencers towards other members overall activity level.

There are some cultural considerations in Morrow county. Obesity rates have climbed and are higher among Hispanics (RAND Corporation, 2017). Hispanic and Black populations have a higher rate of obesity and cardiovascular issues across the nation (Johnson, et al., 2019). Morrow County has a large percentage of Hispanic and Latinx living in the north portion of the county, a number that has grown exponentially over the years. The Morrow County health report states that 65 percent of the north end of the county identifies as Hispanic origin (MCHIP, 2018). Any prevention efforts have to be based on a multicultural approach. Another often overlooked cultural or community aspect is the role of religious institutions as a protective factor. Morrow County has a strong Catholic tradition. Research has shown that church involvement can play a protective factor in preventing obesity (Derose, et al., 2019).

At the individual level, risk and protective factors for obesity can be more nuanced. There has long been evidence that genetics and hereditary markers increase the likelihood of obesity. Recent research that attempted to examine restrictive eating and its effects on those with higher genetic marker was overall inconclusive (Konttinen, et al., 2018). Self-control and other individual factors further play into prevention efforts against obesity, as can be seen in what Solmon (2015) indicates in activity levels being an issue of self-motivation. Individual access to food could also be evidence of those self-motivating efforts, as Kaiser and Cafer (2018) found that those that experience food scarcity are 1.7 times more likely to be obese (Kaiser & Cafer, 2018).
PART 3: THEORIES OF PREVENTION

Obesity prevention in Morrow County, Oregon

There are several theories of prevention that fit with this social change project. Specifically, the transtheoretical model of change and positive psychology lend themselves to prevention efforts in regards obesity. There has been a large amount of research into both subjects.

The transtheoretical model of change (TTM), is based on the idea that change takes place over six stages. These stages are identified as precontemplation, contemplation, preparation, action, maintenance, and termination (Conyne, Horne, & Raczynski, 2013). In reviewing weight management programs, Johnson et al. (2008) found support for TTM as a way to implement weight loss programs. One major reason is that TTM assesses the stage that its target population is primarily at and this helps to dictate the type of prevention efforts to be best utilized at that specific time (Conyne et al. 2013). In some cases multiple interventions can be used at the same time depending on the differing stages of the target population (Johnson, et al., 2008).

An example of this TTM in relation to the obesity epidemic in Morrow County would be first to assess even if citizens in the county were aware that there is an issue with obesity and what the effects of obesity are on the individual and the community (precontemplation). Education and information campaigns that highlight the effects of obesity and ways in which to combat it would hopefully move at least some of the populace to be motivated to make a change
within the next six months (*contemplation*). Proposing a program or intervention and having interested parties sign up or seek referrals would then be the next step (*preparation*). Implementing the prevention strategy comes next (*action*). Monitoring and providing support for weight management and those gains made during the action phase is next (*maintenance*). Lastly, assessing at a later date those individuals who may have lost those weight management gains is undertaken (*termination*). Winnick and Bonham (2018) provide research that indicates the most important step is helping the group overcome either ignorance of the issue or lack of understanding that the issue is pressing, which is really the move from precontemplation to contemplation.

Another theory that fits well with efforts to prevent or ameliorate obesity is positive psychology. Positive psychology posits that interventions are based around identifying and increasing strengths and positive developments in regard to the specific prevention effort. As Conyne et al. (2013) state, positive psychology lends itself well to prevention efforts in general due to the fact that it “draws attention to what is right” versus what is wrong (p. 2-14). It can be assumed that in the case of obesity, with its known link to higher levels of depression body issues, and levels of shame, an intervention that focused on the positives would be much more popular. This theory can be applied to organizations and communities as well as at the individual level (Conyne et al. 2013).

Positive psychological approaches have shown to lower body mass index (BMI). Yorgason et al. (2019) found that positive relationship scores predicted reduction in BMI over time, especially in females. The strengths-based aspect of positive psychology lends itself to community interventions, which is what Morrow County’s high level of obesity requires. There
is research to support a strengths-based intervention for obesity prevention in youth that involves family, social support, and what Wilson et al. (2017) refer to as positive social environments.

A prevention program that showed success in obesity prevention was the implementation of Healthy Eating Active Living Zones in low income population centers in California (Cheadle, et al., 2018). This program implemented a multi-faceted approach that supported interventions that were designed by coalitions in each community, which could be seen as a positive psychology effort utilizing local strengths. This program also utilized assessment both prior to implementation and post intervention which lends itself to TTM strategies (Cheadle, et al., 2018).

PART 4: DIVERSITY AND ETHICAL CONSIDERATIONS

Obesity prevention in Morrow County, Oregon

Morrow County’s high obesity rate may be reflective of issues in its Hispanic and Latinx populations. Morrow County’s population is 36 percent Hispanic, compared to a 12 percent statewide (MCHIP, 2018). It is also documented that obesity levels amongst the Hispanic population has risen exponentially, with an estimated 47 percent of adult Hispanics in the United States qualifying as being obese (Salinas, et al., 2020).

The issue of obesity among Hispanic subcultures in the United States has been the subject of several studies. Van Hook et al. (2020) examine the change in life expectancy that the U.S. Hispanic population is experiencing. According to their research, Hispanics have had a longer life expectancy then non-Hispanics (referenced after as ‘whites”), but that this trend and gap is shifting (Van Hook et al. 2020). They attribute this lowering of life expectancy in hispanics to
and increase in both smoking and obesity. The rates of obesity in U.S. born Hispanics grew from 15 percent in the 1960’s to just below 40 percent in the 1980’s (Van Hook et al, 2020).

There are several factors that are in consideration as we examine this from a sociocultural view. While there is some assumptions that obesity and economic status may be linked, Shackleton (2017) found that parental income was not a factor influencing childhood obesity rates. In their study of obesity rates amongst Hispanics in the El Paso area, Salinas et al. (2020) found a correlation between education level and obesity but less support for economic factors as a significant variable.

For a prevention program to be effective and culturally relevent, the relationships within that community subgroup and the programs perceived value are of utmost importance (Conyne et al. 2013). In the case of this prevention program, whatever efforts are undertaken need to take in to context the possiblity of a language issue. Evidence has shown that the language issue has reduced prevention efforts amognst the Hispanic or Latinx populations and acted as a barrier (Salinas, et al., 2020). Second, community buy-in needs to occur, and making it relevant to the this underrepresentated minority will have to involve outreach into areas that are geographically associated with this underepresented group. In Morrow County, that would mean the areas of the northern portion of the county, where the population is 36 percent Hispanic (MCHIP, 2018).

Lastly, Van Hook et al (2020) presuppose that since the growing obesity numbers amongst the Hispanic population are in U.S. born versus foreign born, there is the possiblity that country of origin practices may be healthier. There is evidence presented that shows Mexican immigrants that retain their country of origins eating habits are healthier then those that adopt the normal U.S. food consumption (Van Hook et al. 2020).
There are some ethical considerations that we must be cognizant of in dealing with this historically underrepresented sub-group of the population. As noted above, the issue of English not being the primary language may mean ethical issues surrounding informed consent, confidentiality, and evaluation. For obvious reasons, migrant populations may not feel safe or willing to engage in prevention efforts, or the opposite may be true and they may feel forced to engage, especially if those efforts are delivered through an employer. The American Counseling Association ethics requires that we address both of these issues under A.2.c which mandates that language and cultural issues are dealt with in a way that the client understands informed consent issues (American Counseling Association, 2014). The key then is to make sure that the information is relayed to this population correctly using nuanced language and taking into account the cultural feelings and beliefs.

Utilizing an already established advocacy group would be a good way to assist in the implementation of these efforts. In Morrow County, the group Raíces’ is an advocacy group made up of younger and mostly U.S. born Latinx which has gained strong recognition as a result of recent efforts working with the U.S. Census (Sierra, 2020). This advocacy group could be used in both the process of consultation, delivery, and evaluation.

PART 5: ADVOCACY

Obesity prevention in Morrow County, Oregon

According to the multicultural and social justice competencies there are several areas of advocacy interventions. Specifically, interventions that focus on the areas of the institutional, community and public policy level. An examination of barriers for those areas follows.
The primary barrier to obesity prevention at the community level for Morrow County (OR) is the seeming extreme difference between the north portion and the southern portion of the county. The north end of Morrow County is, in some areas, 30 percent Hispanic population, while the southern portion of the county is primarily Caucasian (MCHIP, 2018). The northern part of the county has a number of industrial sites along the Columbia River, including major facilities that support Amazon and other large scale production sites along with a number of service related jobs connected to the many gas stations, restaurants, and motels that line both the Columbia River and Interstate 84, the second most travelled freeway in the State. The southern portion of the county is mostly family owned ranches and a handful of service sector jobs. This could almost be described as a rural and urban divide. Kenkel (1986) references that community prevention efforts are generally easier to implement in rural areas due to their homogeneity. Conversely, it may mean that an urban rural divide might make implementation of prevention efforts more confusing.

An institutional barrier is the current COVID-19 pandemic. At one time Morrow County had one of the highest COVID infection rates in the state, resulting in the Governor closing many institutions down (Sewidan & Castle, 2020). In the smaller communities that make up Morrow County the primary institutions are several non-profits and then the schools. COVID-19 protocols in Oregon have caused many organizations to close. This includes schools, which are very important to the small towns that make up Morrow County.

One of the main directors of policy in regards to health issues is public health. In Oregon, each county has a public health department. Public health has been chronically underfunded. Oregon’s health department funding of public health in 2019 ranked 32rd among states (United
Health Foundation, 2020). With a weaker public health system that is underfunded, implementing policy that supports obesity interventions would be hampered.

An advocacy step that could be taken to overcome community issues would be to work to identify areas in the county that are historically underserved or of a lower SES. As noted above, the urban/rural divide makes it more difficult to apply a one-size-fits-all prevention perspective in regards obesity. In the more densely populated areas outreach to those that may be economically disadvantaged may bridge that divide.

Overcoming institutional barriers that were created by the COVID pandemic may be more difficult. An advocacy measure would be working with private companies to help bridge the gap. Amazon has a large footprint in Morrow County, and has already helped support schools through the COVID e-learning experience (Mcdowell, 2020). Kraak and Story (2010) highlight the benefits of public/private partnerships in battling obesity among children. In the case of Morrow County, an initiative to get several of the large employers to help subsidize access to physical activities could help prevention efforts.

Lastly, a public policy advocacy measure could be approaching local government regarding support for obesity prevention. In the case of Morrow County, the strongest local government entity is the county court. In Oregon, the county court can pass ordinances that direct funds and investment or designate zoning issues. For example, Godbey (2009) addresses the issue of access to parks and safety issues as a way to increase physical activity, which can be seen as a step to preventing obesity. The local county court could zone for more parks and implement such steps as safety measures (lighting, security, etc.) to increase this utilization.


https://datausa.io/profile/geo/morrow-county-

or#:~:text=14.7%25%20of%20the%20population%20for,and%20then%20Males%206%

20%2D%202011.


https://fred.stlouisfed.org/release/tables?rid=412&eid=360820


The parks offer camping areas, OHV's at the OHV park.

Oregon Health Authority. (2016). *Morrow County Behavioral Health Profile*. Oregon Health Authority.


doi:10.1017/S1463423613000510

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https://www.americashealthrankings.org/explore/annual/measure/Sedentary/state/ALL


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