Healthy Eating
Active Living
(HEAL)
Strategic Plan

Paso del Norte Health Foundation

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INTRODUCTION
This strategic plan for the HEAL initiative has been developed with the following goals: 1) Increase fruit & vegetable consumption and improve portion control; 2) Increase physical activity and decrease sedentary behavior; 3) Create an environment that promotes healthy eating and active living without bias against obesity; 4) Achieve long term sustainability of PdNIHL & HEAL initiative. This strategic plan employs the principles of collective impact using a multi-sector, multi-level, evidence-based approach. This is a plan for the Paso del Norte region, including the counties of Hudspeth, El Paso, Luna, Doña Ana, and Otero, and Ciudad Juárez.

The HEAL strategic plan has the following vision, mission, and values:

**Vision:** The Paso del Norte Region will have a culture of healthy eating and active living, providing all residents the opportunity to eat healthy and be active.

**Mission:** The Mission of the HEAL Initiative is to provide these opportunities through evidence based interventions.

**Values:** We value integrity, community input, cultural competency, and respect for people of all sizes. We value the opportunity for all people to have access to nutritious foods and engage in safe physical activity.

![Figure 1: Graphic representation of the Healthy Eating Active Living Initiative](image-url)
Strategic Plan

This HEAL strategic plan will employ the concepts of Collective Impact and a social-ecological model in order to maximize impact and sustainability of strategies described here.

Collective Impact

For the HEAL initiative to achieve significant success in increasing healthy eating and active living on a large scale across the Paso del Norte region, the model of Collective Impact will be employed (Figure 2).

For the HEAL initiative to have Collective Impact, the following five conditions will be met:

- **Common Agenda**: All participants have a shared vision for change that includes a common understanding of the problem and joint approach to solving it.
- **Shared Measurement System**: Collecting data and measuring results consistently at the community or regional level across all organizations will ensure efforts are aligned with the Common Agenda.
- **Mutually Reinforcing Activities**: Activities of a diverse group of stakeholders will be coordinated through a mutually reinforcing plan of action.
- **Continuous Communication**: Building relationships and developing trust among stakeholders will be achieved through consistent and open communication to assure mutual objectives.
- **Backbone Support Organization**: The PdNIHL serves as the backbone organization for the HEAL Collective Impact initiative. This supporting infrastructure will lead the overall effort to improve HEAL within the Paso del Norte region. This includes casting a vision, motivating partners, creating a sense of urgency, planning, managing, and supporting the initiative through facilitation, technology and communication support, data collection and evaluation coordination, and logistical and administrative coordination. The PdNIHL ensures the other elements of Collective Impact are present and robust.

In order to achieve a shared measurement system so partners have the ability to track progress toward goals, the PdNIHL will develop an online integrated data collection framework that allows tracking outcomes of individual programs and region-wide impact. For example, participants in a new Qué Sabrosa Vida program may be assessed for changes in fruit and vegetable intake before and after participation in the program. Likewise, customers at retail stores in which new in-store marketing
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Techniques designed to improve fruit and vegetable intake will be assessed for changes in fruit and vegetable intake, as will children at a school testing new fruit and vegetable presentation approaches in the cafeteria. The tracking system will allow for follow-up within each program, but will also ensure a shared measure that allows for comparison across multiple sectors within the region, as well as over time.

Social-Ecological Model

Although individuals are responsible for their own choices and behaviors, those choices can be largely influenced by the social and physical environment in which they live. Healthy eating and active living exist along a continuum that includes individual choices and behaviors, but also the environment within a person’s family and social network, organizations in which they function (school, work, etc.), the broader community, and the region in which they live. Focusing efforts to increase healthy eating and active living to just one aspect of the continuum without making changes across the entire continuum are less likely to be successful and sustainable long-term. Therefore, the approach of this strategic plan will use the concept of modified social-ecological model and employ strategies across all five levels of the continuum (Figure 3).

Goals of the HEAL Initiative

The following goals for the HEAL Initiative and accompanying objectives are presented in this strategic plan:

GOAL 1: Increase fruit & vegetable consumption and improve portion control

GOAL 2: Increase physical activity and decrease sedentary behavior

GOAL 3: Create an environment that promotes healthy eating and active living without bias against obesity

GOAL 4: Achieve long term sustainability of PdNIHL & HEAL initiative

There is an intentional absence of some possible HEAL goals. The goals presented are chosen based on their importance to overall healthy eating and active living and their ability to have an impact, especially pertaining to the Paso del Norte region. Additionally, the number and scope of goals are designed to be ambitious but not too diluted in an effort to maximize impact in the region.
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BACKGROUND

Why are healthy eating and active living important?

Healthy Eating
When it comes to improving nutrition, a complete approach is required. Not only do people need to consume a diet rich in nutrients, but they also need to consume the amount of energy (calories) their body needs. Caloric overconsumption leads to obesity, which leads to a multitude of other health problems including increased risk of type 2 diabetes, heart disease, stroke, hypertension, osteoarthritis, sleep apnea, asthma, some cancers, gallbladder disease, high cholesterol, pregnancy complications, psychological difficulties and disorders, and premature death (Office of the Surgeon General, 2001).

Regardless of weight, a high quality diet can combat many chronic diseases. Of the important components to a healthy diet, consumption of fruits and vegetables is especially poor. Less than 25% of Americans consume the recommended amounts of fruits and vegetables (even fewer achieve that goal in the Paso del Norte region, Figure 5). Fruit and vegetable intake is important because of the inverse relation between intake and cardiovascular disease (Oude Griep 2011; Joshipura, 2001; He, 2006; Wang, 2014), type 2 diabetes (Carter; 2010), some cancers (World Cancer Research 2007), and all-cause mortality (Bellavia, 2013; Wang, 2014).

Active Living
Active living involves two important and distinct components: being physically active and minimizing sedentary time.

Physical activity can be defined as movement that enhances health (US DHHS, 2008). In addition to reducing the risk of cardiovascular disease, type 2 diabetes, and some types of cancers, physical activity strengthens bones and muscles, improves mental health and mood, and increases chances of living longer (Physical Activity Guidelines Advisory Committee, 2008). Current recommendations for physical activity are at least 60 minutes per day for children (including aerobic, muscle strengthening, and bone strengthening activities) and, for adults, at least 150 minutes per week of moderate to vigorous aerobic activity plus muscle-strengthening activities 2 days per week (US DHHS, 2008).

Sedentary behavior, or physical inactivity, includes sitting, watching television, reading, playing video games, and using a computer. Health scientists are discovering that sedentary behavior can have negative health consequences – even for those who engage in recommended amounts of physical activity. For example, the odds of developing a disability in activities of daily living were more strongly related to sedentary time than to time spent in moderate or vigorous physical activity (Dunlop, 2014). Another study found that the negative effects on fitness levels of about 6 hours of sedentary time were similar in magnitude to the beneficial effects of one hour of exercise (Kulinski, 2014). In fact, the World Health Organization has warned that sedentary lifestyles could be one of the ten leading causes of death (WHO, 2002).
The importance of combating bias against obesity, healthy eating, & active living

Despite the fact that the majority of Americans are either overweight or obese, weight bias is common in U.S. society, with weight discrimination affecting as many people as racial discrimination (Andreyeva, 2008). Weight bias leads to discrimination in employment, education, health care, the legal system, and the media (Puhl, 2009; Schvey, 2013). Weight bias can lead to negative psychological outcomes such as reduced self-esteem, negative body image, binge eating, anxiety, depression, and suicidality (Friedman, 2008; Puhl, 2007; Schvey, 2011). In addition to psychology consequences, there is evidence that weight bias induces negative biological consequences including arterial pressure (Major, 2012), glycemic control (Tsenkova, 2011), cortisol levels (Schvey, 2014), and morbidity (Muennig, 2008). To combat negative health consequences of obesity and create an environment that promotes healthy eating and active living, we must combat weight bias.

Food deserts

The term food desert refers to an area where people do not have ready access to fresh, nutritious, and affordable food. The specific definition changes for different purposes, but typically takes into consideration income level, distance to a grocery store, and access to a vehicle.

More specifically, the USDA, Treasury, and Health & Human Services have defined a food desert as a census tract that meets low-income and low-access thresholds (AMS-USDA, 2014):

1. They qualify as "low-income communities", based on having: a) a poverty rate of 20% or greater, OR b) a median family income at or below 80 percent of the area median family income; AND

2. They qualify as "low-access communities", based on the determination that at least 500 persons and/or at least 33% of the census tract’s population live more than one mile from a supermarket or large grocery store (10 miles, in the case of non-metropolitan census tracts).

As shown in Figure 4, all or most of Hudspeth, Luna, and Otero counties are considered food deserts, as are significant portions of the El Paso and Las Cruces areas. Food deserts have been a target of the
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current administration as part of Michelle Obama’s Let’s Move initiative. Although there are some data that indicate lower income level is associated with decreased access to healthier foods, and it seems *logical* that deceased access to healthy food would result in consumption of a less healthy diet, the scientific evidence is mixed. In fact, one recent pilot study of the impacts of opening a new grocery store in a food desert showed no change in fruit and vegetable intake or BMI (Cummins, 2014), highlighting the need for comprehensive approaches that target not just availability but also additional strategies to increase purchases and consumption of healthy foods, while keeping in mind the economic impact on low-income residents in targeted areas.

**Evaluation of healthy eating & active living programs and initiatives**

Any effort to improve healthy eating and active living must be conducted with appropriate evaluation to determine if the intervention is having the intended impact and to inform future efforts. Therefore, all aspects of this strategic plan will include evaluation. Methods of evaluation require a balance of accuracy, cost, and feasibility, as well as invasiveness and risk to the recipients of the intervention. In some cases, traditionally used evaluation methods can lead to meaningless or false conclusions (Schoeller, 2013). For example, using self-reported food intake to assess total energy (calorie) intake has been shown to be invalid due to substantial biases and inaccuracies (Schoeller, 1990; Trabulsi, 2001; Scagliusi, 2008). Throughout this strategic plan, the PdNIHL will work with partners to ensure the optimal evaluation approaches used.

**HEAL History**

The Paso del Norte Health Foundation has a long history of promoting healthy eating and active living. Major initiatives that influence physical activity and diet include:

*Walk El Paso Walk:* Along with Camino Juárez, Walk Doña Ana, and Walk Otero, this initiative was based on community input that indicated a simple, easy, and free form of exercise was in need. The PdNHF used a three prong approach of 1) media to promote walking, 2) walking kits and groups to promote safety and peer groups for walking, and 3) celebration events, like the Mariachi Mile, to celebrate individual and community success. Evaluation showed public interest in walking kits, walking groups, and special events. This helped create a culture of walking for exercise in the region.

*Step It Up:* This short-lived initiative built on Walk El Paso and encouraged residents who currently were walking to increase the frequency, duration, or intensity of walking.

*Qué Sabrosa Vida:* The 4 C's of Cooking, Choosing, Controlling, and Celebrating drove this program that targeted primary meal preparers, mainly middle aged women, who were ready to make positive changes in home cooked meals. The six hour course was implemented over 3 or 6 weeks by grantees with professionally produced materials from the University of Texas School of Public Health’s Human Nutrition Center. A seventh class, the chef lesson, served as a capstone. Evaluation showed that participants learned how to prepare healthy food and tried new recipes at home.
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**CATCH:** The Coordinated Approach to Child Health was implemented in partnership with Region 19 Education Service Center for area schools. The program provided materials for physical education classes along with training of PE teachers. CATCH emphasized movement and involvement of all students versus learning sports skills and rewarding athletic students. Research in El Paso showed that CATCH was adopted by many regional schools with positive results among students; YISD and SISD continue to use CATCH.

**Get HIP Now:** In 2009, the El Paso Independent School District (EPISD) received a multi-year award from the PdNHF to develop and implement the Get HIP Now initiative, a coordinated school health (CSH) program that focuses on improving elementary and middle school-aged students’ health literacy and fitness levels. The program taught students about health and wellness throughout the school day and provides students with opportunities to be involved in physical activity before or after school through structured activity zones at the elementary level and wellness centers at the middle school level. There were two distinct curricula for the elementary and middle school levels. The program was found to yield positive results for student health knowledge, attitudes, behaviors, and fitness. The trajectory of the Get HIP Now program was positive, especially with the recognition that individual-level and institutional-level change is expected to be challenging and slow. A follow-up evaluation is planned for 2015 if full cooperation from EPISD can be obtained.

A 2009 study (Hoelscher, et. al.) emphasized that extensive regional implementation of community programs contributed to a reduction in obesity among El Paso youth. Of paramount importance is the fact that a combined effort of programs and policies from multiple stakeholders, led by the PdNHF, was responsible for the change. It is unlikely that any single program would result in similar positive results. The PdNHF learned that multiple sectors, including schools, community, government, and others must be engaged with multiple strategies, such as policy advocacy, health education, capacity building, media campaigns, and others to reach population level health goals.

**Planning Process**

In developing this strategic plan, an assessment of the region was undertaken. The assessment team included partners from University of Texas at El Paso (UTEP), UT School of Public Health, and Texas Tech University Health Science Center-Paul L Foster School of Medicine (TTUHSC-PLFSOM). The assessment included a compilation of regional baseline data of health indicators, and resulted in a report that will be made available on the PdNIHL website. Additionally, a qualitative assessment involving stakeholders was undertaken.

Furthermore, the Coalition for a Healthy Paso del Norte Region produced the Paso del Norte Regional Strategic Health Framework Report in 2012 ([http://www.pdnhf.org/framework/](http://www.pdnhf.org/framework/)). The goals and objectives of this priority area informed this planning process and can be viewed in Appendix A. Additionally, various members of the HEAL Coalition reviewed the Strategic Plan and provided final input and endorsement.
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Quantitative assessment

The full baseline data report will be available at the PdNIHL website (pdnihl.com). The data most relevant to this strategic plan are presented below.

Fruit and Vegetable Intake: National, Texas¹ and New Mexico² data from 2009 reveal almost identical rates (23% +/- 0.5%) for the proportion of the population achieving a daily intake of the recommended 5 servings or more of fruits and vegetables (Figure 5). El Paso County data is also at this level. However, rates of achieving this level of consumption are lower in the New Mexico Counties at 16.6% for Otero County, 19.7% for Doña Ana County, and 22.5% for Luna County. County level trend data shows a decrease in consumption in Otero County (from 23.9% to 15.6%) from 2007 to 2009, but essentially no change in the rates in other counties over this time period. With the exception of Otero County, all county level data show lower consumption of fruits and vegetables among males (range 18.5% to 19.3%) compared to females (21.2% to 29.4%).

The Youth Risk Behavior Survey (YRBS) does not allow county level comparisons of survey results, but a report on the national 2011 YRBS indicated that the rates of not eating any fruit or drinking 100% fruit juices in the prior 7 days were worse among Blacks (6.5%) compared to whites (4.5%) and Hispanics (4.5%) and worse among males (5.3%) compared to females (4.3%) (Figure 6)³. Also, rates generally improve through grade level: 5.3%, 5.2%,
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4.2%, 4.4% for 9th to the 12th grade. Texas as a whole is ranked at the mid-point among states at 6.1% overall and New Mexico is slightly higher at 6.9%. Rates for not eating vegetables in the past 7 days were 9.0% in Texas, 6.0% in New Mexico, and 5.7% in the US.

**Body mass index (BMI)** is a ratio of weight to height (weight in kilograms/ [height in meters]$^2$). In adults, obesity is defined as a BMI score of $\geq 30$kg/m$^2$, and overweight is defined as a BMI of 25-29.9 kg/m$^2$. A BMI of 18.5-24.9 kg/m$^2$ is considered normal weight and below 18.5 kg/m$^2$ is considered underweight.

Data from 2010 BRFSS estimates the prevalence of obesity in the US at 28.9% (Figure 7)$^{4,5}$. In the Paso Del Norte region, Luna County had the highest prevalence of obesity at 35.0%, followed by Doña Ana County at 31.4% and El Paso County at 31.2%. Otero County had the lowest prevalence at 22.5%, was the only county with a rate lower than the national average, as well as the only county with a lower prevalence in 2010 than in 2008. Obesity became more prevalent among adults in all the other counties during this time period. In 2010, 31.8% of Texan adults were obese as were 25.6% of New Mexican adults. Data were not available for Hudspeth County.

In Texas, schools are required to collect FitnessGram data, which include BMI and fitness tests. Figure 8 shows a map, by school district, indicating the BMI % at high risk (data for 2013). The darker districts have a greater share of students falling in the BMI High-Risk Zone$^6$. Definitions for high risk depend on age and gender (Appendix B).

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$^6$ www.reshapingtexas.org/fitnessgram
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**Physical Activity:** Average reported “no leisure time physical activity” in the US declined from 25.5% to 24.4% between 2008 and 2010. The US-Mexico border region followed suit, with Texas decreasing 1.8% (28.5% to 26.7%)\(^7\) and New Mexico decreasing 2.3% during the same years (23.9% to 21.6%)\(^8\). In the Paso del Norte region, El Paso County and Otero County decreases approximated their state averages. Luna County, NM, however, saw nearly an 18% decrease from 37.8% of the population who did not engage in leisure time physical activity in 2008 to only 20% in 2010. Doña Ana County, NM demonstrated the only increase in leisure time physical activity between 2008 and 2010 in the region (from 23.4% to 26.5%) (Figure 9). Data were not available for Hudspeth County, TX.

According to the U.S. Department of Health and Human Services, young children and adolescents 6–17 years old should participate in at least 60 minutes of physical activity daily (US Department of Health and Human Services, 2008). In Texas and New Mexico, 73% and 74%, of youth, respectively, did not engage in this recommended amount of physical activity.

**Qualitative Assessment**

The qualitative assessment was undertaken by conducting interviews with community leaders. The assessment was based on a tool developed by the CDC called the Community Health Assessment and Group Evaluation (CHANGE) designed to help communities prioritize change. This approach suggests interviewing leaders across 5 different sectors (Community-at-Large, Health Care, School, Community Institution/Organization, and Work Site) using questions in six different modules (Demographic, Physical Activity, Nutrition, Tobacco, Chronic Disease Management, and Leadership). Due to the broad nature of our region (rather than a single community as the CHANGE tool was designed for) and the HEAL focus, we limited our questions to those related to healthy eating and active living and focused on the Community-at-Large, Health Care, and School sectors.

**Community-At-Large Sector:**


\(^{8}\) New Mexico Department of Health - Epidemiology and Response Division. (2008-2012). New Mexico’s Indicator-Based Information System (NM-IBIS). Retrieved 2014, from ibis.health.state.nm.us/home/ContentUsage.html
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For the community-at-large assessment, the main city in each county was assessed (El Paso, Las Cruces, Deming, and Alamogordo; no city in Hudspeth). Phone and in-person interviews were conducted with individuals working and residing in each community, and included people in positions such as city planner, health promotion specialist, dietician, Health Council coordinator, etc.

General themes from the Community-at-large Interviews:
1. Positive changes in recent years, but there is a need for policy changes that support HEAL-related initiatives in some communities; in communities with integrated policies, there is better environmental support for physical activity.
2. There is a lack of community resources related to health education in some cities; other cities have a wellness coordinator who provides health education to city employees.
3. There is a lack of prioritization for HEAL; this was attributed to financial constraints and political maneuvering by developers.
4. Some communities have restaurant and other food retail based efforts to improve healthy eating (e.g. Eat Well El Paso), while others do not (no programs in Las Cruces, Deming, Alamogordo).
5. One community had success with supporting candidates who have a strong HEAL-related platform, resulting in a new city council member who supports HEAL initiatives.
6. Many interviewees mentioned a need for a stronger referral system for services, and in many cases, a lack of low- or no-cost services.

An overall observation made by the interviewer was:
“There is little acknowledgement among community leaders that many of the issues discussed in the CHANGE tool are even pertinent to their community. They don't see HEAL as a critical issue, and/or don’t know what kinds of strategies could be used to address this problem and/or do not prioritize it due to lack of funding.”

Health Care/Medical Sector:
For the Health Care sector, interviews were completed with administrators/physicians from two hospitals, two primary care clinics, and one pediatric clinic; another pediatric clinic preferred to self-complete the survey instrument and returned it. We were able to interview at least one health care entity from Doña Ana County, El Paso County and Alamogordo. Most entities were non-profit public or private entities; we had only one private for profit entity. The staff size varied from 7 -1500+.

General themes from the Health Care/Medical Sector Interviews:
1. Most entities do not have explicit policies or procedures related to the assessment or counseling for physical activity or nutrition.
2. There are limited resources for providing these services in-house and little available in the community for prevention or treatment of obesity, affordable healthy eating, or physical activity.
3. There are generally no established referral pathways and little monitoring or tracking of these referrals.
4. Most activities are at the discretion of the provider and are likely very variable both within practices and across practices.
5. In general, the Federally Qualified Healthcare Centers (FQHCs) appear to fare better with links to the community and having access to any programs that could help, but generally these are limited, focused on adults, and related to diabetes.

School Sector:
For the school sector, site visits and interviews were conducted with nutrition and health staff at Region 19 Education Service Center and in the school districts of Canutillo, El Paso, San Elizario, Socorro, Ysleta, Deming, Las Cruces, and Ciudad Juárez. Focus groups were also conducted with children.

General themes from the School Sector interviews:
1. School districts with a health coordinator had a more comprehensive health initiative throughout the district and were more likely to be confident that teachers (both classroom and physical education) were complying with district health policies.
2. Nutrition programs were more consistent across school districts in the region than were health and physical education programs, largely due to federal regulations from the USDA school lunch program. Despite the apparent quality of these programs, however, there did seem to be a misperception of the quality and value of those services by children and parents participating in the school lunch program.
3. Nutrition directors and staff across schools agreed that a “closed campus” approach at lunch would increase school lunch program participation and improve diet quality of students. Some examples were provided of schools that had made this change and seen such improvements (as well as other benefits such as decreased afternoon absenteeism and lower teen pregnancy rates), but there was also consensus that few school principals would be willing to change the open campus policy at their schools.
4. There were notable differences between New Mexico and Texas schools with regards to frequency of physical education classes, with Texas schools generally providing PE daily (varies by grade level) and New Mexico schools providing PE 2-3 times weekly. This seemed to be largely explained by differences in state policies.
5. In focus groups, children told us that food preference (how much they liked an item) and choice (how many different items there were to select from) was a factor in children choosing to eat school lunch. Additionally, children told us that in most cases they did not know what the menu would be and that led them to prefer bringing a lunch rather than risking limited options that they did not like.
6. When children were asked about active transport to school, they indicated that parents’ time constraints or concerns for safety were the most common reasons for not allowing children to walk or bicycle to school.
7. In Juárez, some governmental programs aimed at improving nutrition are not fully carried out. There are no school lunch programs, and access to healthy food during the school day is limited to cart vendors, corner stores, and snack brought from home (including snack some children bring to sell to others). There is a need to raise awareness among students and parents about the importance of healthy eating and physical activity. There is also a perception that healthy eating is too expensive.
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GOALS

Goals are outlined below with measurable objectives. The objectives will be assessed by tracking epidemiological data (such as those presented in the baseline data section above) as well as assessing relevant indicators before and after specific interventions or programming efforts. Whenever possible, biomarkers will be used to assess outcomes.

The PdNIHL is working in conjunction with PdNHF to begin a survey program in collaboration with regional school districts in Texas. The questions related to fruit and vegetable intake, physical activity, and sedentary behavior used in the Youth Risk Behavioral Surveillance System (YRBSS) will be part of the school questionnaire, allowing us to track these data at a district level across the region over time. We will also be able to compare them to state and national levels collected through the YRBSS, and to county levels from New Mexico's Indicator-Based Information System (NM-IBIS)

GOAL 1. Increase fruit & vegetable consumption and improve portion control

Objective 1.1a: By December 2019, increase adult veggie-meter scores in the Paso del Norte Region in at least half of HEAL-initiative programs for which fruit and vegetable intake is a primary outcome.  
Baseline rates: National, Texas and New Mexico data from the Behavioral Risk Factor Surveillance System (BRFSS) 2009 reveal almost identical rates (23% +/- 0.5%) for the proportion of the population achieving a daily intake of the recommended 5 servings or more of fruits and vegetables. El Paso County data is similar. Rates are lower in the New Mexico Counties: 16.6% for Otero County, 19.7% for Doña Ana County, and 22.5% for Luna County.  
Measurement: Rather than using self-reported data from BRFSS to track changes in fruit and vegetable intake (which is known to be highly inaccurate), targets for this objective will be tracked using data from reflectance spectroscopy (a.k.a. veggie-meter), which objectively assesses changes in carotenoid levels. Carotenoids are a biomarker for total fruit and vegetable intake.

Aspirational Objective 1.1a.asp: Increase by 5 percentage points the percent of adults consuming 5 or more serving of fruits and vegetables per day in each Paso del Norte region county.  
Measurement: Track population-wide changes using the BRFSS. We note the BRFSS is less valid and less reliable than biomarkers, but it is one of the few tools that provide a community estimate. If other community-wide markers become available, those will be investigated.

Objective 1.1b: By December 2019, increase youth veggie meter scores in the Paso del Norte Region in at least half of HEAL-initiative programs for which fruit and vegetable intake is a primary outcome.  
Baseline rates: Self-reported rates of consumption of 5 or more servings of fruits and vegetables per day for 2011, by county, are available for New Mexico: 23.5% for Otero County, 19.6% for Doña Ana County, and 22.5% for Luna County (ibis.health.state.nm.us/indicator/view_numbers/NutriYouthFruitVeg.Cnty.html). Data for youth are not available by county for Texas.  
Measurement: Rather than using self-reported data to track changes in fruit and vegetable intake, targets for this objective will be tracked using data from reflectance spectroscopy (a.k.a. veggie-meter), which assesses changes in carotenoid levels. Carotenoids are a biomarker for total fruit and vegetable intake.

(ibis.health.state.nm.us/indicator/view_numbers/NutriYouthFruitVeg.Cnty.html)
Aspirational Objective 1.1b: Increase by 5 percentage points the percent of youth consuming 5 or more serving of fruits and vegetables per day in each Paso del Norte region county.

Measurement: Track population-wide changes using the BRFSS. We note the BRFSS is less valid and less reliable than biomarkers, but it is one of the few tools that provide a community estimate. If other community-wide markers become available, those will be investigated.

Objective 1.2: By December 2019, increase the prevalence of people within the Paso del Norte region who consume an appropriate caloric level to support a healthy weight.

Baseline rates: None available. “Healthy daily caloric intake” is the number of calories required to maintain weight in individuals with a healthy BMI and lose weight in individuals working to achieve a healthy BMI.

Measurement: While obesity rates could be considered a proxy measure of healthy daily caloric intake, they are also influenced by a multitude of other factors and therefore will not be used as the primary indicator for this objective. There are currently no accurate measures of caloric intake at a population level, but this is the single most important dietary objective for weight control and associated morbidities. We will measure caloric intake at the program level using methods such as doubly labeled water and other outcomes related to specific strategies as appropriate. We will also use changes in body composition as a proxy for changes in caloric intake. However, this proxy will also be affected by changes in physical activity.

Objective 1.3: By December 2019, increase National School Lunch Program participation rates by 5 percentage points in schools in the Paso del Norte region.

Baseline rates: Current school participation rates (according to information provided by school nutrition program directors) in the region range from 68-90% for elementary school, 58-96% for middle school, and 41-84% for high school (reporting districts included EPISD, YISD, SISD, CISD, and SEISD).

Measurement: IHL will work with school nutrition program directors to track these data over time.

Objective 1.4: By December 2016, all PdNHF grantees running children’s programs will have a healthy snack program in place.

GOAL 2. Increase physical activity and decrease sedentary behavior

Objective 2.1a: By December 2019, increase FitnessGram scores in the Paso del Norte Region in at least half of HEAL-initiative programs for which increased physical activity is a primary outcome

Baseline rates: FitnessGram data from YISD for 2012-2013 (% of students who achieved the Healthy Fitness Zone) were: 59% for aerobic capacity, 73% for curl-up, 71% for push-up, 72% for trunk lift, 62% for sit & reach, and 62% for shoulder stretch.

Measurement: FitnessGram data will be used to track progress in Texas school districts. Efforts are underway to work with all regional Texas county schools to establish ongoing acquisition of FitnessGram data by the PdNIHL. New Mexico does not require schools to use FitnessGram, so assessment will have to be completed on a program-by-program basis. The PdNIHL will establish a system to collect baseline and ongoing fitness data in schools in New Mexico and Juárez, most likely at the program level.

Aspirational Objective 2.1a: Increase FitnessGram scores by 5 percentage points in each category of the FitnessGram assessment for children in the Paso del Norte region.
Measurement: While the PdNHF or IHL will not collect FitnessGram data at all schools, it is sometimes possible to obtain FitnessGram data collected by schools. When possible, these secondary data will be collected and monitored.

Objective 2.1b: By December 2019, increase lean body mass in children in at least half of the HEAL-initiative programs for which increased physical activity is a primary outcome.
Measurement: Increases in lean body mass can be expected from sufficient increased physical activity. The amount of increase will depend on several factors including age, type and intensity of physical activity, and baseline fitness level. The amount of lean body mass is a relevant outcome of interest because increased lean body mass (regardless of body fat) is associated with decreased risk for diabetes and other positive health outcomes. Lean body mass will be measured by body composition analysis using bioelectrical impedance.

Aspirational Objective 2.1b.asp: Increase by 5 percentage points the number of children in each Paso del Norte region county who indicate they were physically active at least 60 minutes most days during the 7 days before the survey.
Measurement: Using the less valid and reliable BRFSS and New Mexico YRS, relevant data will be tracked.

Objective 2.1c: By December 2019, increase adult fitness scores in the Paso del Norte Region in at least half of programs for which increased physical activity is a primary outcome.
Baseline rates: Adults reporting no leisure time physical activity in the past month in 2010: El Paso county 28.7%, Doña Ana County 26.5%, Luna County 20%, Otero County 23.6%.(www.dshs.state.tx.us/chs/brfss/query/brfss_form.shtm and ibis.health.state.nm.us/home/ContentUsage.html). Rather than rely on self-reported levels of physical activity which are known to be highly inaccurate, we will collect objective adult fitness scores. No baseline data are available at this time.
Measurement: The IHL has developed an adult fitness testing protocol (similar to FitnessGram used in children) using guidelines by the American College of Sports Medicine. This testing protocol will be used to assess impact of all programs for which adult physical activity is a primary outcome.

Aspirational Objective 2.1c.asp: Decrease by 5 percentage points the number of adults in the Paso del Norte region reporting no leisure time physical activity in the past month.
Measurement: BRFSS data will be tracked and, when available, other indicators will be included.

Objective 2.2: By December 2019, decrease by 5 percentage points the percent of youth in each Paso del Norte region county who report watching TV for 3 or more hours per day on an average school day.
Baseline rates: Rates for 2011, by county, are available for New Mexico: 32.0% for Otero County, 31.1% for Doña Ana County, and 34.2% for Luna County (ibis.health.state.nm.us/indicator/view_numbers/PhysicalActYouthTV.Cnty.html). Data for youth are not available by county for Texas. Rather than rely on self-reported levels of sedentary behavior, which are known to be highly inaccurate, the IHL will collect objective data using activity monitors such as accelerometers or pedometers as appropriate. No baseline data are available at this time. Data will be collected at the programmatic level. The IHL will monitor secondary data sources, such as BRFSS.
Measurement: Accelerometers are devices that can assess changes in physical activity and sedentary behavior. They are more sophisticated than pedometers, which simply measure the number of steps from an up-down motion (2 axes). Accelerometers can measure force on 3 axes so they are better at assessing changes in intensity of the physical activity as well as total physical activity and sedentary time. The IHL will assess changes in physical activity and sedentary behavior using pedometers or accelerometers as appropriate depending on factors such as sample size and time period of interest. GOAL 3. Create an environment that promotes healthy eating and active living without bias against obesity

Objective 3.1: Recognize leaders annually who have significantly contributed to HEAL in the Paso del Norte region.
Potential strategies:

- Hold an annual HEAL week that includes recognition dinner
- Use social media and press releases to recognize leaders

Objective 3.2: Hold at least 1 workshop, summit, or conference aimed at building partner capacity for program delivery, program evaluation, advocacy, etc.

Objective 3.3: By December 2015, an evaluation of the impact of the El Paso obesity resolution will be completed. [Objective completed]

Objective 3.4: By December 2019, at least 3 health impact assessments that emphasize HEAL will be completed.

Objective 3.5: During 2015-2019, at least 1 policy brief on HEAL will be written per year.

Objective 3.6: All HEAL grantees will be trained annually in techniques for advancing and evaluating HEAL policies.

Objective 3.7: By December 2019, increase the number of Obesity Medicine certified physicians in the Paso del Norte region to 5.
Baseline: There is currently one Obesity Medicine certified physician in the Paso del Norte region.
Measurement: The number of physicians with Obesity Medicine certification will be tracked using the American Board of Obesity Medicine Diplomat Directory (abom.org/certification-verification/)

Objective 3.8: During 2015-2019, hold at least one regional offering for continuing professional education for health and medical professionals.

Objective 3.9: By December 2018, deploy validated methods to measure weight bias in health/medical sector and determine regional baseline levels.
Healthy Eating Active Living (HEAL) Strategic Plan

Objective 3.10: By December 2016, develop a system to measure the amount of weight bias in regional media.
  
  Subobjective 3.10a: Decrease weight bias in regional media by December 2019 (target will be set based on baseline levels assessed).

Objective 3.11: By December 2017, a feasibility study will be submitted on how to improve training of students so they are better equipped to serve stakeholders (e.g. clients, patients, students, etc.) in HEAL-related areas.

Objective 3.12: By December 2017, identify the needs regarding hunger, food access, and food availability across the region so that strategies can be developed and deployed for improvement.

Objective 3.13: By December 2019, the Paso del Norte region will have at least 3 new affordable community HEAL resources to which providers can refer patients.

Objective 3.14: By December of 2017, El Paso will have a master bike-walk trail plan incorporating the Playa Drain.

Objective 3.15: By December 2019, Las Cruces, Deming, Alamogordo, and Juárez will have master walk-bike trail plans.

GOAL 4. Achieve long term sustainability of the PdNIHL & the HEAL initiative

Objective 4.1: By December 2018, a system to track HEAL behaviors long-term in the Paso del Norte region will be pilot tested.

Objective 4.2: By December 2017, PdNIHL will submit at least 4 proposals for leveraged funding.

Objective 4.3: By December 2019, at least 25% of the Executive Director’s or other PdNIHL staff salaries will be covered by external funding.

Objective 4.4: From 2015-2019, PdNIHL will be recognized as a national leader in HEAL by being accepted or invited to present at least one national conference per year.

Objective 4.5: From 2015-2019, PdNIHL will be recognized as a regional leader in HEAL by:
  
  • increased website visits of 10% per year
  • PdNIHL staff/partners speaking at City Council or other relevant policy-making body meetings on average once per year
  • PdNIHL staff/partners serving on at least 1 committee or board per county

Objective 4.6: By December 2019, each HEAL funded program through the PdNHF will have an evaluation to document progress and for quality improvement.
SUMMARY
In summary, the HEAL strategic plan has been developed through a careful process of assessing current data and needs, obtaining input from community members, discussion and planning with partners, and consideration of the best available scientific evidence. This plan uses a multi-sector, multi-level approach to address the needs of the Paso del Norte region with regards to healthy eating and active living.
Healthy Eating Active Living (HEAL) Strategic Plan

References


Healthy Eating Active Living (HEAL) Strategic Plan


Office of the Surgeon General (US); Office of Disease Prevention and Health Promotion (US); Centers for Disease Control and Prevention (US); National Institutes of Health (US). The Surgeon General's Call To Action To Prevent and Decrease Overweight and Obesity. Rockville (MD): Office of the Surgeon General (US); 2001.


Appendix A: Paso del Norte Regional Strategic Health Framework Report from 2012 Priority Area 1

**Priority Area 1: Obesity/Diabetes/Fitness/Nutrition**

Goal 1: Create communities that promote a life-long commitment to healthy eating and active living

**Objective 1.1:** To increase healthy eating among adults in the Paso del Norte Region

**Evidence-based or Evidence-informed Strategies:**

1.1.1: Increase availability of lower cost healthier food and beverage choices in various venues (community recreational facilities, city and county buildings, hospital cafeterias, worksite cafeterias, vending machines)

1.1.2: Lower prices for healthier foods and beverages and provide discount coupons, vouchers redeemable for healthier foods, and bonuses tied to the purchase of healthier foods and work with local grocery stores, restaurants, vending machine operators and concession stand operators

1.1.3: Improve availability of mechanisms for purchasing foods from farms (farmers’ markets, farm stands, community supported agriculture, “pick your own,” and farm to work initiatives)

1.1.4: Work with schools and local city and county partners to implement joint use agreements that allow the use of athletic facilities and outdoor recreational facilities by the public on a regular basis (school gyms, parks and green space, outdoor sports fields and facilities, walking and biking trails, public pools, and community playgrounds)

**Key Sector Engagement:** city/county government, recreational facilities, hospitals, universities, employers, restaurants, grocery stores, farmers markets, agriculture, foundations, mass media, community-based organizations, housing, parks, schools
### Priority Area 1: Obesity/Diabetes/Fitness/Nutrition

**Goal 1:** Create communities that promote a life-long commitment to healthy eating and active living

**Objective 1.2:** To increase healthy eating among children and young people in the Paso del Norte Region

<table>
<thead>
<tr>
<th>Evidence-based or Evidence-informed Strategies:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2.1: Assess the school districts’ health policies and programs and develop a plan for improvement</td>
</tr>
<tr>
<td>1.2.2: Address physical activity and nutrition through a coordinated school health program (CSHP) that includes health education, physical education, health services, nutrition services, counseling and psychological services, healthy school environment, health promotion for staff and parent involvement</td>
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<tr>
<td>1.2.3: Strengthen the schools’ nutrition policies</td>
</tr>
<tr>
<td>1.2.4: Implement a quality school meals program</td>
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<tr>
<td>1.2.5: Implement a policy that requires all school districts to serve at least one serving of fresh fruits and vegetables at every meal served in the school cafeteria</td>
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<td>1.2.6: Implement a policy that requires all school districts to only serve low fat or fat free milk and no sugar sweetened beverages in the school cafeteria/on school grounds</td>
</tr>
<tr>
<td>1.2.7: Implement a policy that requires “recess before lunch” in elementary schools</td>
</tr>
<tr>
<td>1.2.8: Implement a high quality health promotion program for school staff that focuses on nutrition and weight management worksite initiative</td>
</tr>
<tr>
<td>1.2.9: Implement a high quality course of study in health education that includes nutrition education and the impact of overweight and obesity on health throughout the life span</td>
</tr>
</tbody>
</table>

**Key Sector Engagement:** local school districts, USDA, community-based organizations, local school boards, community leaders, foundations
Objective 1.3: To create a physical environment that supports physical activity participation for residents in the region

Evidence-based or Evidence-informed Strategies:

1.3.1: Enhance infrastructure supporting bicycling by creating bike lanes, shared-use paths, and routes on existing new roads; providing bike racks in vicinity of commercial and other public spaces

1.3.2: Enhance infrastructure that supports walking that includes, but is not limited to sidewalks, footpaths, walking trails, and pedestrian crossings

1.3.3: Support locating schools within easy walking distance of residential areas

1.3.4: Develop and implement Active Living Master Plan

1.3.5: Implement policy changes including Safe Passage Policy for cyclists and a Complete Streets policy to be implemented by municipalities

Key Sector Engagement: city/county government (planning, public works, parks and recreation), housing authority, department of transportation, private business, philanthropic organizations, public-private partnerships, transportation, land use, community design, local bike stores, YMCA and others
Evidence-based or Evidence-informed Strategies:

1.4.1: Assess school-based physical activity policies and programs and develop a plan for improvement

1.4.2: Strengthen physical activity policies and implement policies that require school districts to require a minimum of 150 minutes per week of PE in public elementary schools and a minimum of 225 minutes per week of PE in public middle schools and high schools throughout the school year.

1.4.3: Address physical activity and nutrition through a Coordinated School Health Program (CSHP) that includes health education, physical education, health services, nutrition services, counseling and psychological services, healthy school environment, health promotion for staff and parent involvement

1.4.4: Implement high quality evidence-based physical activity programs that assist students in achieving the national standards for K-12 physical education

1.4.5: Implement Safe Routes to Schools

1.4.6: Implement a high quality health promotion program for school staff that focuses on physical activity and weight management

1.4.7: Implement a high quality course of study in health education

1.4.8: Expand One Step at a Time program for overweight people to entire Paso del Norte Region

1.4.9: Replicate Walk El Paso Walk and Walk Doña Ana Walk programs in Hudspeth, Otero, Luna Counties

1.4.10: Implement physical activity programs through municipal and county government that include walking challenges, free or reduced gym memberships, financial incentives for completing a Health Risk Assessment and for maintaining good health or improving health (cholesterol, blood pressure, BMI, blood glucose)

1.4.11: Implement a safety education program for cyclists that promotes the usage of helmets, cycling safety rules of the roadway, and sharing walking paths with pedestrians (i.e., “Hard Hats for Little Heads”)

1.4.12: Implement an education program for motorists that include rules related to sharing the road with cyclists and informing motorists about the rights of cyclists.

1.4.13: Implement a swimming program for young people through local YM/YWCA and/or parks and recreation program that teaches swimming lessons and swimming as exercise/aerobic resistance

Key Sector Engagement: schools, Department of Transportation (Safe Routes to Schools), YMCA, community-based organizations
**PRIORITIZE AREA 1: OBESITY/DIABETES/FITNESS/NUTRITION**

**Goal 1:** Create communities that promote a life-long commitment to healthy eating and active living

**Objective 1.5:** To implement a multi-media campaign that will increase understanding regarding the importance of healthy eating and active living in addressing overweight and obesity in the Paso del Norte Region

**Evidence-based or Evidence-informed Strategies:**
1.5.1: Clearly define the problem of overweight and obesity within the population and present it to media and key stakeholders
1.5.2: Develop the components of a mass media campaign that include paid advertising (TV, radio, billboards, bus ads, print media, websites), social networking (Facebook, YouTube, Twitter, blogs, broadcast texting, LinkedIn, Facebook, Twitter) and community sectors, schools, worksites, community organizations and sports teams.
1.5.3: Develop and distribute educational materials designed to educate and engage stakeholders and community members around solutions for overweight and obesity

**Key Sector Engagement:** local TV, radio, newspapers, websites, county/city government, hospitals, universities, employers, schools, public, private and voluntary organizations, business, civic groups, community-based organizations, community health centers, health care providers, health plans, housing, parks
### Appendix B: Definitions for high risk from FitnessGram

**Figure 10: Body Mass Index Standards for Boys (left) and Girls (right), Version 10.x**

<table>
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<tr>
<th>Very Lean</th>
<th>HFZ</th>
<th>NI</th>
<th>NI-Health Risk</th>
<th>Very Lean</th>
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