



# Diabetes Assessment in the County of El Paso, Texas <u>Qualitative Report</u>

Presented to the

Paso del Norte Health Foundation

Ву

Dr. Jeannie B. Concha
Dr. Maria Duarte-Gardea
Dr. Eva M. Moya
Denise Portillo
Dr. Sudip Bajpeyi

The University of Texas at El Paso

College of Health Sciences

April 30<sup>th</sup>, 2020

## **TABLE OF CONTENTS**

EXECUTIVE SUMMARY2
Chronic Care Model
UTEP RESEARCH TEAM RECOMMENDATIONS
Limitations4
Interview Summaries on Resources to Meet American Diabetes Association Standards of Medical Care5
Standard 1: Improving care and promoting health in populations5
Standard 2: Diabetes diagnosis (risks, tools, algorithms) lifestyle management via Diabetes Selfmanagement Education and Support (DSMES)
Standard 3: Diabetes Prevention and Delay9
Standard 4: Comprehensive Medical Evaluations and Assessment of Comorbidities10
Standard 5: Diabetes lifestyle management via Diabetes Self-management Education and Support (DSMES)
Standard 6: Obesity Management14
Standard 7: Diabetes in Older Adults15
Standard 8: Diabetes in Children/Adolescents
Health System and Community sector Suggested Recommendations to meet Standards18
References
APPENDIX A. Original Proposal
APPENDIX B. Selected ADA Standards of Medical Care to Inform Interviews
APPENDIX C. Status of Project Deliverables
APPENDIX D. Qualitative Brief Bulled Summary and Qualitative and Quantitative Data by Collaborative Care Model Sectors

#### **EXECUTIVE SUMMARY**

In Fall 2019, The University of Texas at El Paso (UTEP), College of Health Sciences team initiated a qualitative community diabetes assessment via 16 key informant interviews with health care and community diabetes stakeholders to:

- a) Determine whether appropriate resources exist to meet the American Diabetes Association (ADA) 2019 recommended A grade and B grade standards of medical care<sup>1</sup>, and
- b) Identify community/culture-centered strategies for the County of El Paso to best reach the recommended standards of care.

The team used the American Diabetes Association (ADA) Standards of Medical Care in Diabetes - 2019 report to inform the creation of six interview guides for the Chronic Care Model (CCM) health system and community sectors (i.e., health delivery system, diabetes management support channels, treatment decision cycle, clinical information systems, diabetes community resources and policy advocates). The ADA recommends the CCM as an evidence based (i.e., A grade) model for system level improvements and the optimization of care for people with diabetes. In 2019, the UTEP team, consisting of behavioral health, social science, and diabetes researchers, proposed to interview representatives of primary care and internal medicine, diabetes quality improvement health systems, diabetes resource organizations, health insurance providers, worksites, and school district leadership. The interview questions were derived from eight overarching ADA recommendations and their specific A grade and B grade standards of care recommendations. See Appendix A and B for the original proposal, detailed methodology, and the specific A grade and B grade standards.

A total of 16 interviews have been completed with representatives from each sector of the Chronic Care Model. See Appendix C for a detailed account of the number of individuals invited, number of declines, and the number of non-responses. From the Health System sector, three medical clinicians, two representatives from quality improvement health systems, and two health insurance representatives were interviewed. Representatives of medical clinicians included one internal medicine doctor, one endocrinologist, and one pediatrician. From the Community level sector, two diabetes organization representatives, two health insurance representatives, three large worksite representatives, and four school district representatives were interviewed. The duration for each interview was an estimated hour. All the interviews were primarily conducted in English and transcribed in English by an independent party.

#### **FINDINGS**

Based on the overarching eight ADA Standards of Medical Care -2019 recommendations and the specific A and B grade standards that were prioritized by the team (see Appendix B), the interviews reveal that there are disconnects between the Chronic Care Model (CCM) Health System and Community sectors. These disconnects contribute to the standards of care not being fully met for the residents of El Paso County. This in turn, creates challenges for the optimization of existing diabetes resources to improve diabetes care coordination. The interviews also reveal opportunities to bridge the disconnect between Health System and Community sectors by improving collaborations to improve diabetes education among patients, their families, the community, and health care clinicians. There was consensus across all interviews that diabetes education and more collaboration is needed in El Paso County to meet the needs of people with diabetes, which suggests that Health System and Community sector representatives are in a readiness for action stage.

The CCM (figure 1), illustrates that collaborations and partnerships between the Health System and Community sectors can facilitate patient engagement (i.e. activation), via education, and diabetes care coordination for patients. Figure 2 a/b, however, illustrates our findings and demonstrates our interpretation of the disconnect between Health System and Community sectors. Our qualitative assessment found that the core elements of the CCM do exist in El Paso County and can be maximized by bridging the Health System and Community sectors. This bridge can be accomplished through improving communication and collaboration between the health delivery system, diabetes management support channels, treatment decision cycle, clinical information systems, diabetes community resources and policy advocates.

Figure 1. Chronic Care Model CCM (Peek et al. 2014)

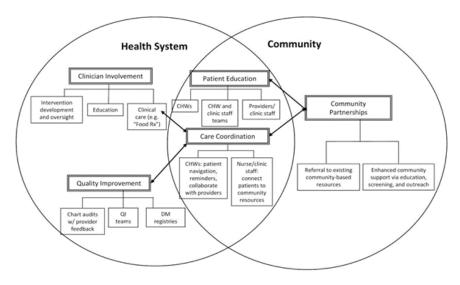
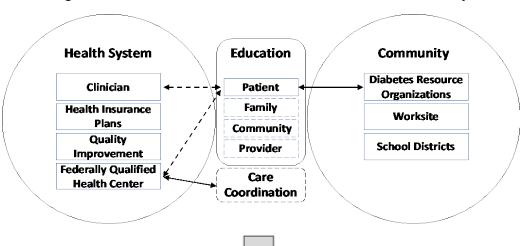


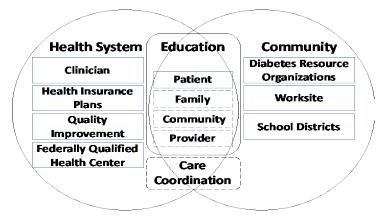
Figure 2a. Assessment of Present state of CCM in El Paso County



Recommendation: Initiation and Establishment of a Diabetes Coalition to Bridge Sectors



Figure 2b. Expansion to include Education across Patient, Family, Community, and Health Provider



We further identified discussions with Health System and Community sector representatives exemplifying where and how some of these disconnections occur. Discussion themes found throughout the interviews indicated that agencies/organizations that are federally funded are most likely to offer comprehensive services that are aligned with many of the ADA Standards of Diabetes Medical Care compared to non-federally funded and privately funded agencies/organizations. Across all interviews, there was agreement that linking people with diabetes to community resources, like social services, can help improve the current work and efforts of each sector within the CCM. Many sectors, however, were unaware of existing community prevention and management community resources.

One population that was identified as needing more attention, both from the Health System and Community level sectors, is children with diabetes, particularly children/adolescents and families living in low income social contexts. The low levels of health literacy and education among individuals with diabetes was identified as one of the main barriers to the prevention and successful management of diabetes. Living in low income, limited infrastructure neighborhoods and food desert communities were additionally identified as barriers and challenges for people living with diabetes. Lastly, communication between health care medical providers, health insurers, people with diabetes, community resources, and school districts were highlighted as a challenge and an opportunity for improving diabetes prevention and management. Interview summaries specific to each ADA Standard of Diabetes Medical care are provided in the subsequent pages following this executive summary.

Recommendations from the representatives interviewed included more and improved coordination, communication, and collaboration between community level resources and the health care system. This includes communication, collaboration and coordination between school systems and medical providers, health care systems and community resources, and coordinated systems between medical providers and health insurers.

#### **UTEP RESEARCH TEAM RECOMMENDATIONS**

El Paso TX County is in an opportune situation to bridge Health System and Community sector resources. Based on our findings, there is consensus for a need to improve the current system of diabetes prevention and care in El Paso County.

To bridge Chronic Care Model (CCM) sectors, we recommend the initiation and establishment of a diabetes coalition with representatives from each CCM sector (federally funded, non-federally privately funded, community partners) with a primary goal of systematically cataloging and strategically promoting diabetes education for people with diabetes (children, adolescents, pregnant women and women of childbearing age, adults, and elderly). Based on comments made from Health System and Community representatives, we further recommend an expansion of the CCM by including evidence-based or standardized diabetes education (e.g., DSMES) not only at the patient level but also at the family, community, and health care profession levels. Given that education (formal and diabetes) was highlighted as one of the most central components for improving diabetes care and health outcomes, both in our assessment and the CCM, we recommend that the first step and goal of the diabetes coalition is to create a virtual space to catalog/centralize all local diabetes education resources and their intended target groups and literacy levels. This first step will: a) identify programs to make Health System and Community sectors aware of such resources, b) identify gaps in diabetes education, c) identify opportunities for meeting the needs of children, adolescents, and their families, c) identify opportunities for meeting the needs of underserved, under/uninsured, hidden, and vulnerable populations, and c) initiate a concerted plan to address these gaps.

The establishment of a diabetes coalition can further lead to an improvement in coordinated care across the CCM sectors and across federally funded and non-federally/privately funded organizations. Moreover, a diabetes coalition can provide a space for clinicians and their staff, quality improvement teams, diabetes educators, community health workers, diabetes resource organizations, worksites, school districts, and community organizations to have conversations leading to unified actions aimed at diabetes prevention, optimal management, and coordinated care, quality medical care. We also recommend a coalition so that partners can dialogue and share their best-practice strategies to meet the ADA standards of diabetes care.

#### **LIMITATIONS**

The interviews represent a select group of individuals who agreed to participate in the diabetes assessment interviews. The findings of this report are not generalizable to the larger El Paso County Health System and Community sectors.

# <u>Interview Summaries on Resources to Meet American Diabetes Association Standards of Medical</u> Care

**Standard 1: Improving care and promoting health in populations (**See Appendix B: A grade 1.3, 1.5, 1.7, B grade: 1.1, 1.2, 1.6)

Theme 1: Contrast between federally funded and non-federally funded private organizations

Theme 2: Awareness of community resources is needed

Theme 3: Consensus collaboration is needed

Theme 4: Diabetes Education is needed

Within the CCM Health System sector, clinician, quality improvement, diabetes resource organization, and health insurance organization representatives indicated the utilization of a diabetes care team approach with varying levels. Across all representatives in the Health System sector the main theme was related to difference in federally funded organizations and non-federally funded organizations. Organizations/agencies that are primarily funded via the federal government indicated a more comprehensive, collaborative, and proactive approach to meeting the needs of all populations including underserviced and vulnerable populations.

Federally funded organizations indicated a larger diabetes care team network, while private and non-federally funded organizations rely mainly on in-house diabetes intervention/treatment approaches to primarily meet the needs of their patient population. While federally funded organizations indicated systematically assessing the social context (i.e., food insecurity, housing stability, financial barriers) of people with diabetes and referring to social services at a broader scale, non-federally and privately funded organizations indicated that the patients' social context was taken into consideration mainly when patients expressed their social context as a health care challenge. Moreover, non-federally funded and privately funded organizations were less likely to utilize community resources or technology to assist patients with their self-management. Clinicians, specifically, were very direct about not having awareness about many community resources to refer their patients. While all organization representatives stated that diabetes education is essential for patients, clinicians identified that a nutritionist can/should be the main source of information for patients. Federally funded organizations were more likely to identify lay health coaches or navigators and community health workers as an important resource for diabetes education and to connect to healthcare and social services.

The following selected quotes exemplify the themes identified for Standard of Care 1:

Federally funded org 1: Our center is a,...federal qualified health center. And for that we have integrated services. Under the integrated services, obviously we provide diabetes care, and we have two ways to do it. We do - the diabetes care through our medical providers and is under intervention. ... and also we provide behavioral health services in our health center and we provide behavioral health services to our diabetes clients or the diabetes patients. And as well dental services...... contracts are for to refer clients, especially for a specialist,.... And we do outreach in different ways. We do outreach through presentations. We do outreach to health fairs, events and community events. .... And our main goal is to access community to the services. How we do that? In the internal navigation, we were - we have three, four navigators here in our building that in these building in which they work with partners, external partners...... We are in 13 schools in [omitted school district] and we have our navigators there in which we - these navigators, the main piece that they do is access clients. They access students to behavioral health services that we provide through LPCs inside of the schools...... external partners that we, for example [omitted treatment place] or with the court - in the court and also in the consulate. We have different partners in which one time a week, one day a week, we go with them and we do a - we act as - we raise our clients, their clients to our services. This is the external - external navigation.

Federally funded org 2: ....."so we have a lot of responsibility with our community. ... we reach out to members based on doctors' referrals, depending on the medical condition. We do have community referrals - if they came across any member that is struggling with diabetes, for instance. We have a collaboration with the school nurses that we can also get those referrals so we can help, and claims data..... We do a lot of service coordination, I think is our priority......We do have a social needs assessment within the appointment, and as you talk to these parents, and you build up

rapport, these parents start disclosing to you more and more and more, and that's when you have to be very selective on how to help. I have an own thing that I say - you have to teach how to get the fish, not give them the fish all the time, you know? "

Non-federally funded org 1: "Pretty much the plan is me. ....And I think it's very important that here in [omitted city] there's not that many physicians per patients. So, most practices have a lot of patients and it's really hard to take care of all of those patients by one sole provider, which we hire mid-levels and things like that. So as a community, I think it's the whole group of us that take care of these patients, but there's not that many specialists as well - especially endocrinologists. So, I usually take care. Primary care doctors are the ones that have to be dealing with these patients and taking care of these patients and avoiding other comorbidities or complications from this disease." "So pretty much, I mean that's - usually it's me. My office is - I have an MA and also we - and I also have a dietician in my office, which helps me manage these patients."

The primary difference between federally funded organizations and non-federally funded and privately funded organizations is the reporting structure. The federal government requires its contractors and grantees to follow certain guidelines of assessment and systematic reporting. This includes a more systematic and comprehensive assessment of patient's social context and impact on underserved and vulnerable populations. Unique to most federal funded organizations is the low-income populations served, thus, the need to utilize and refer to these populations to additional community resources to meet their needs. Non-federally funded and privately funded organizations are less likely to service low income and uninsured populations who may have more personal resources to meet their needs.

**Federally funded Interview 101:** "But all these things that you mentioned, you know, is part of the social services, is part of the social determinants of health, is part of the social environment of the client. And we do that when they are in the care coordination. When they start doing these interventions with their assessment, the big assessment that we have, and we start asking questions and see, we noticed that maybe the client are having issues with food... And we do that in the care coordinators, the promotoras - they know all these resources and we will bring the clients to the resources.

**Privately funded Interview 112:** "Well, most of my patients are economically, socially doing well and they have the means to eat appropriately. I mean they - like I said, most of them have - the Type 1s have insulin pumps, which out in the community sometimes we don't see that. Okay. And that's - most all of them are insured. Okay. And I think my patient population is very different from the patient population that we see out in the community."

The main challenges and barriers identified for meeting the needs of all populations including underserviced and vulnerable also differed across federally funded and non-federally funded organizations. Federally funded organizations indicated that there are not enough resources or manpower to address the large number of people living with diabetes, including diabetes education and health care. The primary challenge for non-federally funded organizations included the limitation that health insurance organization place on treatment for patients with diabetes. Clinicians indicated that the quality of treatment they can provide to patients is influenced by what the insurance companies will cover for the patient. There was thematic consensus across federally funded and non-federally funded organization that the lack of education (formal for low income populations and diabetes specific) and patient engagement about diabetes was also a major barrier for improvement in diabetes self-management outcomes.

**Federally funded Interview 108** "We should have – we need enough – we need educators and diabetes care specialists in all of these areas, and because we don't have enough of you know, those experts, some of these segments of population are being you know, going unnoticed and ignored."

**Federally funded Interview 102**: "What [omitted federally funded org] needs to do is reach out to our population with diabetes type 2, type 1 – more staff.......Two people cannot make a lot of difference. I'm very passionate of what I do, O love what I do. I think it's just me, but I wish [omitted federally funded org] could have a department that could have many guys, we could fix [sic diabetes issue]."

Privately funded Interview 112: "Okay. And that's where it needs to be fixed. There's not enough resources for these patients that cannot afford it. There's insurance companies are also a big problem. And I can tell you that as physicians we get rated, regarding how well you have your patient's control. So have a major insurance company, they'll say, well this doctor's having his patients very well controlled. So good star for him and everything. But sometimes the insurance will say you don't have your patient very well controlled. And my problem that I have, and I have had these discussions with insurance, is that, well I asked you if I want to prescribe this medication for my patient and you don't cover it. So how do you expect me to control your patient when you're only authorizing Metformin?"

**Privately funded interview 112:** "Making them aware of their resources because, I mean, nobody has come to my office and telling me we have these resources for your patients. And even some other patients from the hospital, they tell me, well, I mean there's no resources. All classes are booked. We don't have that many classes. So I mean, it's a big problem. Like, which is why you guys are doing this."

Standard 2: Diabetes diagnosis (risks, tools, algorithms) lifestyle management via Diabetes Selfmanagement Education and Support (DSMES) (See Appendix B: A grade: 2.15, 2.18, B grade: 2.1, 2.7, 2.14)

Theme 1: A1c used for diagnosis

Theme 2: Informal assessments of prediabetes or risk factors for diabetes

Within the CCM Health System sectors, representatives of clinician and quality improvement organizations indicated the use of glycosylated hemoglobin A1c (HbA1c) to diagnose diabetes. Informal screening for prediabetes and type 2 diabetes among asymptomatic adults was reported to occur with subjective informal indicators of diabetes risk, primarily obese weight status. Based on respondents' discussion, women with a history of gestational diabetes are less likely to be screened for prediabetes or diabetes. It is believed this should occur with a woman's obstetrics/gynecology (OB/GYN) physician. In relation to the standard of assessing for family history of type 2 diabetes and race/ethnicity, representatives indicated these factors are documented at clinical intake but not necessarily used in the algorithm for screening and diagnosing diabetes. Representatives from quality improvement sectors indicated that they followed the ADA Standards of Medical Care algorithms for diabetes diagnosis. The following quotes exemplify representatives' strategies for diabetes diagnosis and screening.

Clinician 111: "So nowadays, A1C is a very good tool because it is pretty much well-standardized, the A1C value in order to make a diagnosis. The numbers are very clear. Any number that is above 6.5 A1C, it is consistent with a diagnosis of diabetes. Any number that is in between 5.7 and 6.4, consistent with prediabetes." ...... "So if there is a strong family history, that will be another issue that will tell us that we need to screen at a younger age."

**Clinician 104**: it's part of the demographic is that we collect all that information. We collect all the family history, social history, natal history, into the first basically when we have a new patient.

Clinician 112: "For pre-diabetes? It's pretty much the same. I mean, if I see that they're getting to those numbers, I don't wait until they get there. I put them on and I tell them well I do give him a chance because I just tell them, well you're getting pre-diabetes. We can do this."

**Quality improvement 107**: ""Right now we're using the A1c and then every patient that comes in with our [inaudible] plan has to have an A1c."

It is important to note that the clinician comments represent their respective fields (internal medicine, endocrinology, and pediatrics) and are not representative of other clinicians and practitioners in El Paso TX. Quality improvement representatives come from hospital systems in El Paso, TX, and do not represent all hospital systems in El Paso.

#### Standard 3: Diabetes Prevention and Delay (See Appendix B: A grade: 3.2, B grade: 3.3, 3.8)

Theme 1: Contrast between federally funded and non-federally funded private organizations

Theme 2: Patient and provider education is key

Theme 3: Diabetes education resources and cross sector collaboration is needed

Among the clinician, diabetes resource organization, worksite and school district representatives interviewed, there was a distinct contrast among the federally funded and non-federally funded organizations' awareness of the Diabetes Prevention Program (DPP). Federally funded organizations were aware and referred to the DPP, while those in non-federally funded and privately funded (not sure if you want to keep this consistent with the wording from previous mention of these groups) organizations were not aware of DPP. Federally funded organizations indicated that they encouraged their clients to use phone apps to monitor their eating and physical activity habits. Technology assisted diabetes prevention interventions were less likely to be considered as a tool for preventing diabetes. Worksites, however, reported using incentive programs via the website portal to promote employee wellbeing. Incentive programs for preventing diabetes included, health challenges, points for health behaviors, exercise and gym use incentives and worksite health screening health fairs and education programs. Although worksites provided such opportunities, they identified employee participation among those at more risk as the main challenge.

Clinician 104: "Interviewer: Are you aware of the diabetes prevention program in the

community? Respondent: No"

Clinician 111: "I'm not aware of the programs here for diabetes prevention in [omitted city]."

Clinician 112: "Interviewer: Okay. And do you refer them out to - are you aware of the diabetes

prevention program? Respondent: No."

**Worksite Interview 115:** "So, we've incentivized the wellness program. In addition to that, employees if they join challenges - we do walking challenges, we do walking, getting your steps in type of challenges, or we've even done like lower your sugar intake. Because we know that sugar is the poison that leads to diabetes. So, we've done challenges where a full month you have no sugar, also incentivized. So, those are points based, not necessarily funding. But they are points based and at the end of the year they do end up with a points-based system. So, let's say I have a thousand points. I can use that towards merchandise that we offer."

Across all sectors, patient education (both formal and diabetes specific education) and provider education were identified as necessary for the prevention and delay of diabetes across the life span, however, two clinicians and worksite organizations did not identify Diabetes Self-management Education and Support (DSMES) programs as a resource for receiving such education. All sectors expressed that more community resources, communication, cooperation and cross sector collaborations were necessary to improve education to prevent and delay diabetes.

**Resource organization 108:** "A lot of times, what we try to do is really educate the physicians. Also on that, is letting them know that if they have any patients with pre-diabetes to send them our way because we really put them through the same classes as someone who has diabetes because we think it's they – education is the key in that in prevention"

## Standard 4: Comprehensive Medical Evaluations and Assessment of Comorbidities

(See Appendix B: A grade 4.22, B grade: 4.1, 4.3, 4.20)

Theme 1: Contrast between federally funded and non-federally funded private organizations

Theme 2: Knowledge vs. Application

Theme 3: Time Challenges for Comprehensive Evaluations

Them3 4: Limited specialty care for comprehensive evaluations and referrals

According to the ADA a comprehensive medical evaluation should include assessments of biopsychosocial factors related to the progression of diabetes outcomes. Across both the Health System (i.e., clinician, health insurance organization) and Community sectors (i.e., diabetes resource organization, worksites, school districts), organizational representatives recognized the importance of comprehensive evaluations. A continued theme found was a difference in how federally funded vs. non-federally funded organizations approached comorbidity assessments. Federally funded organizations followed more standardized evaluation and assessment approaches, while, non-federally funded organizations relied on more subjective or base on need assessments (e.g. red flag indicators) of comorbid conditions, particularly related to mental health, medical evaluations or social/financial barriers.

Federally funded organization on mental health: ""Yes, again, because we are FQHC federal qualified health center and we have integrated services. And talking about integrated services is that all that are clients have received every single time that they come to go see their doctor they received this PHQ9? I don't remember the name of the tests that they received for depression or anxiety. PHQ9, I believe. But we had a couple of these specific tool that every single client, even though they come to wherever a thing. Maybe they come to see their doctor including maybe to come to family planning, they received this tool. And they answer this tool and always the provider have access to that and in order to integrate behavioral health to their services....if the doctors see that client needs behavioral health, he called the care manager and the care manager comes and start doing the treatment as well. But also if the client have diabetes, for example, they referred to the care coordination, we work holistically and we work in very, very close with the whole wellbeing of the person

Non-federally funded on referral on mental health: "I mean, if you want a psychiatrist, good luck. I mean, honestly, some of them are - don't take insurance. Most of them are only cash pay. So that's a big one. We don't have psychiatrists. Psychologists also they cannot prescribe here in the state of Texas. Clinical psychologists. Okay. That's a big one. I sometimes refer my patients. I like psychologists better than a psychiatrist because they work on both ends. Not only prescribing a medication, but -- ..... Yeah. So I usually prescribe them, and I have to send them to [omitted city] because the ones here do not - cannot prescribe."

**Private funded organization on mental health:** "Well, it's questioning to the patient. And sometimes it's as easy as entering the room and seeing how they do behave, just to know that they're very anxious. Or how they interact with you. They're normally the ones that will forward that information to you that they're very anxious. And then we provide treatment or we refer to someone to do that."

**Private funded organization on mental health:** "Respondent: Anxiety is pretty much just patients will tell you the diagnosis itself. I mean, I can't go out from my house. I feel like I'm going to - something's bad going to happen. I have heart palpitations. I went to the ER the other day because I was having chest pain and they're like young or something and they're no -

Interviewer: So you're picking up on the symptoms.

Respondent: All red flags."

Clinicians in the private sector specifically expressed the challenge of assessing for mental health problems when there is limited specialist available for referral or limited health insurance coverage for these conditions. Federally funded organizations indicated that they were more likely to refer out to social services case managers and social workers community resources to address mental health or social and financial problems. It was more

evident that federally funded organizations have a larger referral network for psychosocial issues than non-federally funded organizations, which at times appeared to create a more collaborative care team approach.

Health insurance organization representatives indicate that coverage for diabetes related screenings, diabetes related comorbid conditions, and mental health coverage are available for adults with diabetes. Clinicians, however, indicated that there is limited coverage on treatments that do not allow for comprehensive collaborative care.

One of the challenges mentioned for conducting a comprehensive evaluation is time constraints for extensive assessments. The conditions to be less likely to be systematically assessed are, tuberculosis, and cognitive dementia. While all sectors acknowledge a patient-centered approach is necessary, language used in the interviews indicate less of a strength-based communication approach.

**Private funding organization:** "We do not usually screen. Like you mean screening for tuberculosis? I don't hardly because then, I mean, we see it a lot here in [omitted city] because we're close to Mexico. But I mean, unless they have symptoms and that's when I would screen for tuberculosis. And most of the times, most patients are sometimes exposed already. They're either had the vaccine in Mexico, so it's just about symptoms pretty much. They're coughing blood, weight loss, night sweats, and oh my God stay away - out the door."

Both the Health Systems and Community sector representatives recognize the importance of comprehensive medical evaluations and comorbidity assessments for mental health, chronic conditions, tuberculosis, addictions and cognitive functioning, however express a system that does not facilitate the application of these evaluations and assessments in their organizations. Discussions with representatives revealed a "make due" approach for meeting this standard.

Standard 5: Diabetes lifestyle management via Diabetes Self-management Education and Support (DSMES) (See Appendix B: A grade: 5.4, B grade: 5.1)

Theme 1: Patient and provider education is key

Theme 2: Contrast between federally funded and non-federally funded private organizations

Theme 3: DSME not utilized to full potential

Health System and Community sectors, clinician and large worksite organization (including school districts) representatives mainly indicated not utilizing local diabetes self-management education and support programs or other standardized diabetes self-management programs. One clinician indicated referring to Diabetes Self-Management and Education Support (DSMES) programs but also indicated this resource was not utilized to its full potential or used at a full scale. Clinicians primarily indicated that they conduct in house one-to-one education with patients and not family members while resource organizations indicate they provide both diabetes education in groups or one-to-one settings. Federally funded organizations were found to refer individuals to more educational community resources compared to non-federally funded organizations.

**Private funded org**: Interviewer. "So, do you use any self-management education program? Respondent: Not really. I mean we have printed data that we provide to the patient here in the office. And from certain companies they do provide also their other tools for the patient. Let's say if I prescribe a certain medication from a certain pharmaceutical company. They have some programs for teaching to the patient on how to use that insulin, for example. And in addition, do have the program of that only focuses on the insulin, but also on dietary training as well."

**Private funded org:** "I don't know how much that everyone knows there is a certification that a provider can get that makes you a certified diabetic educator in some form. So I don't think that there is a big connection with it unfortunately.... I really don't think so. I could be wrong but when I talk to the providers whether it's a nurse practitioner, an MD or PA, they will say 'oh yeah my diabetic patient this this and that' but I don't know if they know how much of a specialty you can be just from treating diabetes. So I think that is still sorely needed as well too. "

Regarding the use of technology for diabetes lifestyle management, one diabetes resource organization indicated that they utilize a phone app to support their clients' diabetes management. One clinician indicated that the use of Continuing Glucose Monitoring technology devices are useful for his patients in better managing their diabetes.

**Federally funded org:** "Apps that they ca, especially with their eating. We have one for diabetes type 1 that they help the parents count the arbs – that it's super unique, and the one I learned in a seminar that we went [omitted college], and it was awesome, because they can count the carbs. And you know what? We try to educate as much as we can whenever they presented any conference around the area. I have only [omitted organization], they're the ones that put together one [omitted program], and I like that one. This year was very unique because the person did a lot of technology for these members. So whenever it comes to nutrition, I think I have like three, go to look in the App Store."

**Private funded org:** "Well, the technology that became available are the CGMS data. And it is helpful because patients are able to scan the data from the sensor into their phones. And that information can be shared among a lot of other people. Especially on the younger population, and this is a very useful tool so the parents and the providers are able to follow what happened with these blood sugars at a distance"

Based on the interviews, representatives reveal efforts and/or the importance to referring people with diabetes to lifestyle programs but lack of coordination across sectors to address the substantial number of people in El Paso with diabetes can be a challenge. Across all sectors, education was identified as an essential component of diabetes lifestyle management. Identified challenges and barriers to people with diabetes engaging in lifestyle modification programs/behaviors include; poverty, lack of formal education, food deserts, physical environments that do not support health behaviors. It was also identified that children and families of

children with diabetes are more likely not to have diabetes educational and management resources. Health System and Community sector representatives have also indicated cases where children and their families have experienced interactions with medical clinicians that are not patient-centered.

Federally funded org commenting On Private funded org: "he was going to fire them from the practice. And I'm like wow – but that' an easy way to go. Well, the father came in and screamed to me, and tell me this, and tell me that - okay. So, how do you think the father feels having three children with diabetes type I? You tell me. And he was very upset at me asking him that - how dare you ask me that. How dare you want to fire those kids from your practice without referring to another endocrinologist? So I met with the parents, and I met with the kids, and I explained to them, because CPS was involved - CPS called me, the lady, and she's like, I couldn't find anything. These kids are well, they're taken care of very well - I don't get it."

Standard 6: Obesity Management (See Appendix B: A grade: 8.2, B grade: 8.1)

Theme 1: BMI is assessed at intake

Theme 2: Subjective assessment of BMI used to inform care

Theme 3: Physical activity important for weight loss

Theme 4: Lack of structured programs for people with diabetes

Clinician and quality improvement representatives recognized obesity as a risk factor for diabetes; however, there was no indication that recommended or prescribed therapies are designed to maintain more than a 5% weight loss (Grade A). Both sectors identified that dietary and nutrition education are important for people with diabetes and that this should come from a nutritionist or registered dietician. Although, physical activity was also identified as important therapy or approach for weight loss, representatives indicated more structured physical activity programs were needed in El Paso TX. Much of the education on physical activity was shown to occur between clinicians and patients.

Clinician 3: "So I always encourage all my patients to walk at least 25 minutes a day, a brisk walk. And I tell them, I mean, it's not going to take much of your time. It will relax you. You'll enjoy it, you'll thank me later. So I always encourage that. Diet obviously is the other one and some of them I do encourage to join the gym"

Quality Improvement 2: "I've still seen that a lot of providers are still putting the morbid obesity, and they're not looking at the specific BMIs and classifying the subtypes, unfortunately. And at least for me, I feel it's a very old term, morbid obesity. And that it's actually obesity Class 1, depending on the BMI. And unfortunately, I don't see a lot of that being documented that way... So, actually they're looking at our BMI, because we do do that. But they just see a BMI that's going to be in the obesity range and they say it's morbid obesity encompassing...... And I don't agree with that. And so, when I see that, the first thing is I look at their BMI and then I look back and I change the diagnosis to exactly where they are in the BMI range and what class. Because that's where we're at now. .....I've actually seen that diagnosis and when I go in to see the patient, I look at the patient and I'm thinking I don't ... from my eye I'm thinking, no, that's not obesity. And then I look at their BMI and it doesn't reflect that either. So, unfortunately, it's very subjective."

Both clinician and quality improvement representative reported documenting patient Body Mass Index (BMI) at each patient encounter. Discussions regarding weight, however, revealed that subjective assessments of weight informed how clinicians' approached diabetes care and treatment. There was a consensus that addressing obesity is a challenging and difficulty topic to tackle both because of the stigma associated with the condition, physical disability, and because of the lack of physical activity resources designed for people with diabetes.

**Clinician:** Yes, the weight loss is introduced, since there is a stigma about the weight loss and the diet related to the weight loss, we introduce it as diet modification that will intervene in the diabetes, that will have a positive effect on their weight.

Clinician 3: "I don't know. I mean, I guess they're - some of them have tried in the past and they are not successful. So failure, I think it's probably the major one. But the other one is everything hurts. They're older. My knees, back. I cannot exercise because I have osteoarthritis. I have both knee replacement. My back has had five surgeries. I mean it's like - so I think in my case that's the one --....Physical disabilities, osteoarthritis. What to me it's self-explanatory. You can't move. Everything hurts. There's no way you're going to do exercise."

#### Standard 7: Diabetes in Older Adults (See Appendix B: B grade: 12.3)

Theme 1: Contrast between federally funded and non-federally fund

Theme 2: Intergenerational living as a challenge/barrier

Clinician, diabetes resource organization, and health insurance organization representatives indicate that systematic screening for early detection of mild cognitive impartment or dementia and depression among people with diabetes aged 65 and over is partially met. Federally funded organizations reported specific care coordination for older adults with diabetes. While health insurance representatives stated that coverage for health assessment for older adults is available, screening for conditions specific to older adults was not fully met.

**Federally funded org:** "Well, again is older adults we do the care coordination. We do obviously the primary care services with the doctors. The doctors do the - they have the intervention work with diabetes and they refer to the care coordinators and we work with them directly one-to-one."

**Clinician:** "If there is a thought about the possibility of dementia, yeah, there are some screening tests that can be done. I don't do it myself. I tend to refer to the specialist."

**Private Health Insurer:** "Interviewer: And what about cognitive evaluations for dementia for your older patients?

Respondent: Yes, we do. We're going to start - okay, remember that [omitted insurance], it's starting in January 2020 with the Medicare populations, okay? And that's one of the - any patient that is, I think, it's 80 - don't quote me on that, I think it's 80 and over, and have a diagnosis of diabetes, a diagnosis of dementia or Alzheimer's, or any other chronic conditions will qualify for a program. So this new Medicare population, we're going to focus a lot on behavioral and diabetes, which is awesome."

Representatives that work closely with the older population commented that the main challenge for working with this population are set behaviors, attitudes, cultural beliefs and practices about diabetes. Representatives discussed how it is more difficult to engage this population in behavior change. Although, more difficult, it was noted that behavior change is possible by using case managers, community health workers or family members to work closely with this population. Representatives also indicated that time and a patient-centered approach can engage this population in health behaviors. This was discussed as a hand holding approach with this population. It was also noted that one of the challenges working with this population is the intergenerational family relationships. Often times, older adults with diabetes are living with their children and grandchildren and rely on their children as navigators for their disease (e.g. drive them to doctor's appointments assist with translation). If the family is not fully available or supportive of their care, this can become a barrier for their medical care. In addition, the role of matriarchy and influence of ancestors in shaping culture and norms were highlighted.

**Federal funded org**: "There is a lot of matriarchy. A lot of, a lot of-more matriarchy than patriarchy, here in [omitted city] it's different - it's very interesting, I love this. I mean, I'm like, okay - so that's when I have to do like my phone calls, and I'm calling, "what happened ma'am why couldn't you go?" "Ay, it's because my mom..." "Let's see, what is happening with your mom, let's see, talk to me." Maybe she's not part of [omitted org] plan, but I do research, and I tell my co-workers, hey - research. If you're finding out that this lady is having issues taking, for instance, to the appointment because the grandma is sick, I mean, find out what's going on, and see what is available within the community so we can knock down that barrier."

"The older population is the type of population that I deal the most - I think that becomes, again, from our roots, from our family from our ancestors, okay, because they do not believe in medication because they do not believe in doctors. Kids, their kids, their next generation, think the same. They're learning from their parents. And because we are this borderland community, we still have those type of issues when you go to the houses, when you call them."

Standard 8: Diabetes in Children/Adolescents (See Appendix B: A grade: 13.5, B grade: 13.1, 13.12, 13.13, 13.16)

Theme 1: Support for children with diabetes is lacking

Theme 2: Better coordination/communication between schools and clinicians is needed

Across the clinician, diabetes resource organization, health insurance and school district representatives, the pediatrician, one health insurance plan, and school districts provided specific information regarding children with diabetes. Preconception counseling among girls of childbearing age (Grade A) with diabetes was not reported. Assessment of children's social adjustment and distress was not being assessed or reported. Likewise, the assessment of eating disorders was not reported. School representatives elaborated on how they conduct health screenings during registration to assess for risks and how they use the findings to engage parents in conversations.

We—at the beginning of the year—we do—when they do an online registration, they do a health questionnaire—the parents. The nurses review it, and then they find out who are students that are—that have diabetes, or any children—some of the parents will write when they are pre-diabetic. And then the nurse will call them, or bring them in physically, to find out, exactly. We get orders from them, and who are they seeing—so we follow-up to make sure that we know all the information on that particular student. When we do our screenings, we do—acanthosis screenings, and even though they are just mandated for first, third, fifth, seventh by the state, we do—if you see a student—all of our nurses—if we see a student that's, say, they're in for scoliosis-screening, or they're in for because they're sick with a cold—if we notice that they have the acanthosis on them, we'll go ahead and screen them, write them up, and send a referral home."

Clinician Interview 111: "Okay. That's usually referring to the younger patient. But again, we need their support. It's not up to the provider only to just to deal with the disease. We need the help of the team of educators and dietitians, certainly."

Another respondent described how the state legislative mandated program called the Texas Risk Assessment for Type 2 Diabetes. It is while the child is taking the vision/ hearing and scoliosis screening. Only 1<sup>st</sup>, 3<sup>rd</sup>, 5<sup>th</sup>, & 7<sup>th</sup> graders are mandated to be screened but is done in both public and private school. They are screening the kids for acanthosis nigricans.

**School District 109**: "You can look that up with the acanthosis. In the heart of the matter, we're screening the kids when we do our other mandatory screenings, hearing, and vision and really identifying those kiddos that we think have an issue. We're going to do a height and weight. We're going to do a BMI on them. We're actually doing twice; bring them back in and do it a couple weeks later. The referral goes out to the parents straight away, though. Saying, "We saw some markings. This is indicative of but not necessarily diabetes because it's hyperinsulinemia," so we let parents know. They get upset. You know what I mean? If we don't phrase that quite correctly. We are checking those indicators and we're normally noticing that those kids' BMIs are high. They already have some blood pressure issues. That kind of thing. So, it's a good opportunity for them to identify with the parents. We ask parents come in and talk to us. Start with their endocrinologist. Maybe working with our pediatrician what we can do help them."

Health insurance and school district representatives expressed the need for a better assessment of the number of children in El Paso with diabetes. They felt that this would help them target more resources to these families. While schools conduct screenings and referred children with risk indicators of diabetes, these were sometimes not followed up with a diagnosis from the provider. School district representatives mainly stated that better communication with doctors was important to properly serve children with diabetes. Health insurance and school district representatives were eager for community wide collaborations or the establishment of coalitions to address the substantive need in El Paso. Many of the schools are in low income

and food desert areas thus access to healthy foods continue to be a challenge. School representatives reiterated the importance of working with parents and caregivers to ensure that children living with diabetes receive the support services and medical care they need.

#### Quote:

The majority of time when the kids get diagnosed with diabetes type I, parents have the stigma that it is their fault, okay? So I have to go over a little bit more emotional and behavior modification, modifying their behavior, their thinking and say hey, it's not your fault. This is something that they're born with it, and it's not because you drink, you didn't drink, you eat, you didn't eat. I had a parent one time that told me, why did this happen to me, [omitted name]? We are vegetarian, and I am very consistent on the type of food intake my daughter has - she was four years old. I do not understand why she had diabetes type I. So she started crying, you know, and it's very, very sad, and I have to go tweak everything around and lower down my level and say hey - it's not your fault. So we do a lot of motivational interviewing with these parents, and a majority of the parents, I can tell you 95 percent of the interviews that I have done, that in the assessment you have to lower down yourself and be one-to-one - like I'm your friend, I am your neighbor that understands you, and this is what, you know, show them a lot of coping mechanisms, okay, and it's very tense. So this is how, with our intervention comes within the house within the home visit.

We do have a social needs assessment within the appointment, and as you talk to these parents, and you build up rapport, these parents start disclosing to you more and more and more, and that's when you have to be very selective on how to help. I have an own thing that I say - you have to teach how to get the fish, not give them the fish all the time, you know? Because in the type of community that we live, we tend to feel that oh, I need to have, I need to have. So I instruct this family, this is what you have to do, okay? Now your son is diagnosed with diabetes type I - what are the items that you need? What do you need? You need an insulin pump, you need to have a glucometer, in case his sugars go very low. You need to learn how to use a glucometer - you need to follow your doctor's instructions."

**School District Interview 109:** "We have some physicians we refer to. Unfortunately, they tell them, "Wash your neck," or — so all we can do is get the information out there and hope that our local pediatricians are also working with us on that. So, normally, we'll send the referral home. There is a section for the provider to fill out. Sometimes, they'll bring that back to us. Not always, but sometimes we'll say, "Okay. We're going to monitor BMI. Put student on calorie diet. Whatever information they might fill out at the bottom. Sometimes, they're telling them to inform the patient to wash neck. Some of that kind of situation."

**School District 109:** Respondent: Yes, yes. I think if we had some clinics or we had some mobile units, or we had – especially in our [omitted high school name] area; [omitted high school name] – I think it could make a bit impact.

00:35:51 I mean, we even toured one time the area and there's hardly any grocery stores down in [omitted area of city] like with fresh fruit, vegetable. So, I mean, I do think that's a whole paradigm shift but they're not going to buy it if it's not there or it's too expensive. It's cost prohibitive. So, I do think some of that has to start just grassroot efforts in those neighborhoods.

#### Health System and Community sector Suggested Recommendations to meet Standards

In addition to questions specific to the ADA standards of diabetes medical care, we asked Health System and Community Sector representatives to provide suggestions on how to improve diabetes care and outcomes in El Paso County. The following are suggestions provided by the sector representatives.

Objective 2: Identify community/culture-centered strategies for the County of El Paso to best reach the recommended standards of care. Suggestion and strategies on hypothetical if unlimited resources/Meeting standards of care/Additional suggestions

#### MEDICAL PROVIDERS (PRIMARY/INTERNAL MEDICINE)

- Increase specialty care, mental health providers, and dieticians
- Diabetes health care team are limited and there is lack of proper reimbursement
- Issue with insurance providers not allowing for more expensive drugs to be used for treatment.
   Medications like GLP-1s offer added benefits such as weight loss and decreased cardiovascular mortality, but insurance will not cover because of the cost
- Additional resources, possible gyms that focus on health care

#### **QUALITY IMPROVEMENT HEALTH SYSTEMS**

- Having a one stop shop, one location where each aspect of diabetes can be taken care of
- Rural areas around El Paso county need additional resources and they should come from organizations that provide on those services. The organizations should expand on the work that they already do
- Expansion of support groups
- Advocacy for people with diabetes needs to be done in order to get the funding that is here in El Paso
- Learning more about the El Paso community and tailor education specific to the individual with diabetes

#### DIABETES RESOURCE ORGANIZATION REPRESENTATIVE

- Additional access to different resources that are available
- A complete collaboration and holistic approach to addressing diabetes care
- Additional Diabetes Resource Organizations getting addition certifications
- There is a disconnect with all sectors dealing with the community and everyone is addressing diabetes care in a disconnected approach
- Expanding upon resources that already exist, such as cooking classes
- Incorporating more mental health support and expanding those services to young adults with type 1 diabetes

#### **HEALTH INSURANCE REPRESENTATIVE**

- More interaction with the community and find out what the need is
- Additional resources and staff are needed
- Building of a coalition that includes insurance providers, schools, and senior citizen centers
- Hold a conference so that children can learn to defend themselves when being bullied. Speakers could consist of Sheriff's department and stakeholders

#### **WORKSITES**

- Additional programs to assist people with diabetes
- Improve physical environment to support health for people with diabetes by adding more parks and walking paths
- Additional funding for FQHCs at the local level for them to expand services for low-income individuals
- Start a grassroots effort for nutrition education in schools
- Improve communications strategies to change the thinking of self-care as an individual act
- Improve better reporting of diabetes and include empirical data

#### **SCHOOL DISTRICTS**

- Increase community resources to also include increase number of physicians in the El Paso community
- Increase services to rural areas of the county
- Start a campaign to raise awareness of the prevalence of diabetes within the community
- Break stigma of going to the doctor

#### References

- 1. American Diabetes Association Standards of Medical Care in Diabetes 2019. Diabetes Care 2019, 42(S1).
- American Diabetes Association (2019). Improving care and promoting health in populations: Standards of Medical Care in Diabetes – 2019; 42(Supplement 1): S7-S12. <a href="https://doi.org/10.2337/dc18-S001">https://doi.org/10.2337/dc18-S001</a>
- 3. American Diabetes Association (2017). Promoting health and reducing disparities in population. *Diabetes Care*; 40(Supplement 1):S6-S10. https://doi.org/10.2337/dc17-S004
- Dutta MJ, Communicating about culture and health: theorizing culture-centered and cultural sensitivity approaches. Commun Theory 2006;17:304–28. doi:10.1111/j.1468-2885.2007.00297.x
- 5. Stellefson M., Dipnarine K., Stopka C. (2013). The Chronic Care Model and diabetes management in US primary care settings: A systematic review. Prev Chronic Dis; 10:120180 DOI:http://dx.doi.org/10.5888/pcd10.120180

#### **APPENDIX A**

# Diabetes Assessment in the County of El Paso, Texas

Presented to the

## **Paso del Norte Health Foundation**

Ву

Dr. Jeannie B. Concha Dr. Maria Duarte-Gardea Dr. Eva Moya Dr. Sudip Bajpeyi

## **College of Health Sciences**

April 29, 2019

#### **EXECUTIVE SUMMARY**

The University of Texas at El Paso (UTEP) College of Health Sciences proposes to conduct a community diabetes resource and engagement assessment in the County of El Paso, Texas. The purpose of the assessment is to identify strategies to improve diabetes care and community involvement along the continuum of diabetes prevention, screening, diagnosis and prognosis, management/treatment, and specialized medical care. An interdisciplinary team of allied health faculty and researchers will conduct the assessment using the American Diabetes Association (ADA) Standards of Medical Care 2019 and Chronic Care Model (CCM; i.e., core elements for an integrated health system and community) as a guide to determine whether:

- a) appropriate resources (i.e. CCM core elements) exist to meet the recommended standards of care.
- b) identify community/culture-centered strategies for the County of El Paso to best reach the recommended standards of care.<sup>1-5</sup>

APPROACH: The team proposes to conduct a mixed methods <u>community assessment</u>, where representatives of the recommended CCM core elements (*i.e.*, health delivery system, diabetes management support channels, treatment decision cycle, clinical information systems, people/families with diabetes (PWD), diabetes community resources and policy advocates) <sup>1,2</sup> will be interviewed individually or in a group setting. The team also proposes a multi-delivery community survey among El Paso County residents, including semi-rural areas of the County to assess community perceptions related to the CCM core elements and sociocultural factors related to community and patient engagement across the continuum of diabetes prevention and care (i.e., cultural beliefs, personal and community assets, barriers, diabetes care social messaging/framing). Integrated in our approach is the Social-ecological Model as a framework to assess resources and strategies across different community sectors (i.e., individual level, interpersonal level, medical providers, community, and public policy).<sup>6</sup> The team proposes to complete the community diabetes assessment within a 9 month time-frame, upon funding.

DISSEMINATION: The UTEP team will summarize the community diabetes assessment findings and provide recommendations to the El Paso Diabetes Leadership Council and the Paso del Norte Health Foundation (PdNHF) in both a brief report and a PowerPoint presentation. In collaboration with the Diabetes Leadership Council and the PdNHF, the UTEP team will develop a <u>dissemination plan</u> to communicate the findings to stakeholders from multiple sectors. This involves creating a dissemination planning matrix for public communication and outreach of the assessment findings. The planning matrix will include selected audiences, message to convey, impact sought, strategy/communication channels, timeline, and tracking/evaluation of dissemination impact. <sup>7</sup>

The UTEP team estimates a budget of \$153,748 to complete the proposed community diabetes assessment. The cost will cover faculty time, student assistantships, supplies, equipment, focus groups incentives, transcription, analysis, and travel time. The UTEP team will leverage its breadth of knowledge, experience, community engagement, networks, and resources to conduct the proposed assessment. Results of the assessment can also be used to inform subsequent programmatic activities and initiatives to strengthen local capacity and community involvement along the continuum of diabetes prevention and self/medical care.

#### INTRODUCTION

The prevalence of diabetes in the U.S. has tripled over the past twenty years and is projected to increase 50% in 2030.8 Similarly, the cost of diabetes is projected to increase 50% in 2030.8 Hispanics of Mexican background are particularly affected by this epidemic with an estimated prevalence ranging between 14% to 18% compared to 6% among non-Hispanic whites. The State of Texas reports that 16.5% of the El Paso population have diabetes and the Centers for Medicare and Medicaid Services report that 30% of their El Paso beneficiaries is diagnosed with diabetes. Moreover, the diabetes age-adjusted mortality rate among people with diabetes in El Paso County, ranges between 27% (females) and 39% (males). 11-13

In response to the Paso del Norte Health Foundation (PdNHF) and the El Paso Diabetes Advisory Council's diabetes priority initiative to address the diabetes epidemic, UTEP's College of Health Sciences (CHS) proposes to assess the state of diabetes across the continuum of diabetes prevention and self/medical care in the county of El Paso, Texas and identify strategies to: a) strengthen the capacity of existing diabetes resources and b) "plan for a comprehensive approach to build capacity to enhance patient diabetes education, and system-informatics improvements" <sup>14</sup>. UTEP's CHS faculty are uniquely positioned to utilize their collective expertise in the area of chronic diseases and community knowledge to conduct the proposed diabetes assessment.

#### **APPROACH**

The UTEP CHS team proposes a community diabetes assessment mixed-methods approach that is informed from evidence based research. Specifically, the ADA Standards of Medical Care in Diabetes -2019 will guide the direction of the assessment.<sup>1</sup> The ADA recommendations are selected via an expert consensus panel that reviews evidence based research on a grading system: A-indicating the highest level of evidence, B-indicating well supported evidence, C-indicating supportive evidence with some conflicting research, and E-indicting recommendations from expert consensus or clinical experience. The UTEP team will utilize A and B graded recommendations to determine whether:

- a) appropriate resources exist to meet the recommended standards of care, and
- b) identify community/culture-centered strategies for the County of El Paso to best reach the recommended standards of care.<sup>1-5</sup>

The ADA's recommendations for improving care and promoting health in populations involves a care delivery system that integrates community support. specifically identify the Chronic Care Model (A-grade) for system level improvements. The CCM consist of six core elements necessary to "optimize" care, among people with diabetes (PWD: i.e., health delivery system, diabetes management support channels, treatment decision cycle, clinical information systems, diabetes community resources and policy advocates).<sup>2</sup> The CCM is best depicted by the Peek et al., conceptual model (figure 1).<sup>15</sup>

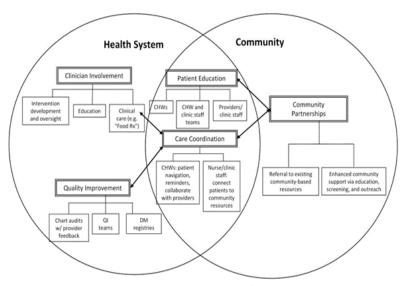


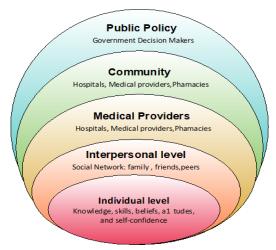
Figure 1. Peek et al., CCM health system/community linkages

#### **QUALITATIVE APPROACH**

The qualitative approach will include conducting key informant interviews (I) and focus groups (FG) to determine whether: a) appropriate resources (i.e. CCM core elements) exist to meet the recommended standards of care for an integrated health system with community resources, and b) to identify community/culture-centered strategies for the County of El Paso to best reach the recommended standards of care. The development of the interview guide questions and focus groups questions will be informed from

current scientific literature and gaps in the literature as related to the six core elements of CCM and Peek's et al., conceptual model.<sup>2,15</sup> In alignment with the CCM of integrated health systems and community linkages, the Social-ecological model (i.e., individual level, interpersonal level, medical providers, community, and public policy) will be an integrated approach to ensure that individuals from each of the model's levels are represented (see figure 2).

Interviews (I) and Focus Groups (FG) will be conducted with representatives from the following levels:



#### **Health Systems:**

- (I) Interviews with at least 2 primary care and internal medicine providers involved in intervention development and oversight, diabetes education and clinical care
- Figure 2. Social-Ecological Model
- (I) Interviews with at least 1 individual involved in diabetes related quality improvement processes.

#### **Patient Education:**

- (FG) 2 focus group with people living with diabetes (men, women, young adults)
- (FG) 2 focus groups with Community Health Workers who deliver diabetes education (8 to 10 individuals)
- (FG) 1 focus groups with active Certified Diabetes Educators (8-10)

#### **Community Linkages/Resources**

- (I) At least 2 interviews with community based diabetes resources organizations (social workers, case managers, El Paso Diabetes Association)
- (I) At least 2 interviews with local Health Insurance Providers
- (I) At least 3 interviews with the largest worksite employers in the County of El Paso Texas
- (I) At least 2 interviews with Faith Based Health Ministries
- (I) At least 4 interviews with school district leadership in the County of El Paso

Focus groups will include between 8 to 10 individuals. Questions for the interview guide will be informed from the ADA standards of care core elements and/or gaps in the literature. The qualitative interviews and focus groups will be audio recorded, transcribed, and analyzed using the Rigorous and Accelerated Data Reduction (RADaR) technique. A combined final report containing general findings and recommendations on strategies that could be taken by the PDNHF to deal with the burden of diabetes in the County of El Paso.

#### **QUANTITATIVE APPROACH**

A multi-delivery community survey will also be conducted to assess community perceptions related to the continuum of diabetes prevention and medical care. Included in this survey will be assessment questions on Social Determinants of Health in relation to diabetes. This includes asking questions about socio-environmental macro level determinants of health (e.g., food insecurity, cultural context, health literacy, economic development/stability). The survey will also include questions regarding community assets and barriers for engaging in diabetes prevention and management efforts (i.e., cultural beliefs, personal and community assets, barriers, diabetes care social messaging/framing). The survey will be delivered electronically via QuestionPro to large organizational/worksite venues and in person by CHWs. The UTEP team will use their network resources to identify different venues to deliver the survey. The team plans to engage large employers in the County of El Paso as a venue for the survey delivery. The team will also engage CHWs to complete the survey with community residents, especially in semi-rural areas. The survey will be available in English or Spanish. The goal is to have 200 individuals complete the survey within the 9-month timeframe. Descriptive and predictive statistics will be conducted to summarize the survey findings.

#### **DISSEMINATION APPROACH**

The qualitative interview and quantitative survey findings will be reported to the El Paso Diabetes Leadership Council and the PdNHF in both a brief report and a PowerPoint presentation. Status reports will be provided quarterly. In the process of conducting the community diabetes assessment, the UTEP team will consult with PdNHF and the Diabetes Leadership Council to determine the summary dissemination report. A planning matrix will be developed to include the components presented in table 1.

Table 1. Dissemination Planning Matrix								
Audience	Message	Impact Sought	Strategy	Channel	Timeline	Tracking Evaluation		

The team will also utilize video/photo technology to capture assessment activities. This approach can be useful to engage low literacy audiences in the dissemination process, dependent on the selected audiences. In addition to the dissemination process as informational, the plan is to also disseminate findings from the community diabetes assessment for instrumental purposes. That is, to enable "practical action" based on the findings. <sup>7</sup> Thus, the UTEP team will provide PdNHF with an evaluation plan for determining whether such actions have taken place as a result of the dissemination of findings.

#### References

- 1. American Diabetes Association Standards of Medical Care in Diabetes 2019. Diabetes Care 2019, 42(S1).
- American Diabetes Association (2019). Improving care and promoting health in populations: Standards of Medical Care in Diabetes – 2019; 42(Supplement 1): S7-S12. <a href="https://doi.org/10.2337/dc18-S001">https://doi.org/10.2337/dc18-S001</a>
- 3. American Diabetes Association (2017). Promoting health and reducing disparities in population. *Diabetes Care*; 40(Supplement 1):S6-S10. <a href="https://doi.org/10.2337/dc17-S004">https://doi.org/10.2337/dc17-S004</a>
- 4. Dutta MJ, Communicating about culture and health: theorizing culture-centered and cultural sensitivity approaches. Commun Theory 2006;17:304–28. doi:10.1111/j.1468-2885.2007.00297.x
- 5. Stellefson M., Dipnarine K., Stopka C. (2013). The Chronic Care Model and diabetes management in US primary care settings: A systematic review. Prev Chronic Dis; 10:120180 DOI:http://dx.doi.org/10.5888/pcd10.120180
- 6. Bronfenbrenner U (1977) Toward an experimental ecology of human development. *Am Psychol.* 32:513–531 doi:10.1037/0003-066X.32.7.5131
- 7. Viswanath, K (2006) Public Communications and Its Role in Reducing and Eliminating Health Disparities In. Examining the Health Disparities Research Plan of the National Institutes of Health: Unfinished Business. Eds. Thomson GE, Mitchell F, Williams M, Committee on the Review and Assessment of the NIH's Strategic Research Plan and Budget to Reduce and Ultimately Eliminate Health Disparities. National Academies Press.
- 8. Rowley WR, Bezold C, Arikan Y, Byrne R, Krohe S. Diabetes 2030: Insights from yesterday, today and future trends. 2017. Popul Health Manag 2017; 20(1):6-12. doi:10.1089/pop.2015.0181
- 9. Dominguez K, Penman-Aguilar A, Chang MH, Moonesinghe R, Castellanos T, Rodriguez-Lain A, Schieber, R. Vital signs: Leading causes of death, prevalence of diseases and risk factors, and use of health services among Hispanics in the United States, 2009–2013. *MMWR* 2015;64:1-10.
- 10. Schniederman N, Llabre M, Cowie CC, Barnhart J, Carnethon M, Gallo LC, et.al., Prevalence of diabetes among Hispanics/Latinos from diverse backgrounds: the Hispanic Community Health Study/Study of Latinos (HCHS/SOL). Diabetes Care. 2014 Aug;37(8):2233-9. doi: 10.2337/dc13-2939.
- 11. Texas Health Care Information Collection. The burden of diabetes in Texas. Department of State and Health Services. 2013.
- 12. Coalition for a Healthy Paso del Norte. A Healthy Paso del Norte 2016 Report.

  <a href="http://www.healthypasodelnorte.org/content/sites/pasodelnorte/2016">http://www.healthypasodelnorte.org/content/sites/pasodelnorte/2016</a> Healthy Paso del Norte Report.pdf Accessed Jan 2018
- 13. Paso del Norte Health Foundation. Healthy Paso del Norte. <a href="http://www.healthypasodelnorte.org/">http://www.healthypasodelnorte.org/</a> Accessed Sept 2018.
- 14. Paso del Norte Health Foundation Diabetes Recommendations for adding diabetes work a the PdNHF. Source: Michael Kelley January 2019.
- 15. Peek ME, Ferguson M, Bergeron N, Maltby D, Chin MH. (2014). Integrated community-healthcare diabetes interventions to reduce disparities. Curr Diab Rep. 14(3):467-78.

#### **APPENDIX B**

#### Table 1: Selected ADA Standards of Medical Care to Inform Interviews

#### 1. Improving care and promoting health in populations

#### **A-grade Standards**

- 1.2 Align approaches to diabetes management with the Chronic Care Model, emphasizing productive interactions between a prepared proactive care team and an informed activated patient.
- 1.5 Providers should assess social context, including potential food insecurity, housing stability, and financial barriers, and apply that information to treatment decisions.
- 1.7 Provide patients with self-management support from lay health coaches, navigators, or community health workers when available.

#### **B-grade Standards**

- 1.1 Ensure treatment decisions are timely, rely on evidence-based guidelines, and are made collaboratively with patients based on individual preferences, prognoses, and comorbidities.
- 1.2 Care systems should facilitate team-based care, patient registries, decision support tools, and community involvement to meet patient needs.
- 1.6 Refer patients to local community resources when available.

#### 2. Diabetes Diagnosis (risks, tools, algorithms)

#### **A-grade Standard**

Maternal history of diabetes or GDM during the child's gestation

Family history of type 2 diabetes in first- or second-degree relative

Race/ethnicity (Native American, African American, Latino, Asian American, Pacific Islander)

#### **B-grade Standards**

- 2.1 To avoid misdiagnosis or missed diagnosis, the A1C test should be performed using a method that is certified by the NGSP and standardized to the Diabetes Control and Complications Trial (DCCT) assay. B
- 2.7 Screening for prediabetes and type 2 diabetes with an informal assessment of risk factors or validated tools should be considered in asymptomatic adults. B
- 2.14 Test for undiagnosed diabetes at the first prenatal visit in those with risk factors using standard diagnostic criteria. B

#### 3. Diabetes Prevention and Delay

#### A-grade Standards

3.2 Refer patients with prediabetes to an intensive behavioral lifestyle intervention program modeled on the Diabetes Prevention Program (DPP) to achieve and maintain 7% loss of initial body weight and increase moderate-intensity physical activity (such as brisk walking) to at least 150 min/week.

#### **B-Grade Standards**

- 3.3 Based on patient preference, technology-assisted diabetes prevention interventions may be effective in preventing type 2 diabetes and should be considered.
- 3.8 Diabetes self-management education and support programs may be appropriate venues for people with prediabetes to receive education and support to develop and maintain behaviors that can prevent or delay the development of type 2 diabetes

#### 4. Comprehensive Medical Evaluations

#### A-grade Standards

4.22 Referrals for treatment of depression should be made to mental health providers with experience using cognitive behavioral therapy, interpersonal therapy, or other evidence based treatment approaches in conjunction with collaborative care with the patient's diabetes treatment team

#### B-grade Standards

- 4.1 A patient-centered communication style that uses person-centered and strength-based language and active listening, elicits patient preferences and beliefs, and assesses literacy, numeracy, and potential barriers to care should be used to optimize patient health outcomes and health-related quality of life
- 4.3 A complete medical evaluation should be performed at the initial visit to: Confirm the diagnosis and classify diabetes. Evaluate for diabetes complications and potential comorbid conditions. Review previous treatment and risk factor control in patients with established diabetes. Begin patient engagement in the formulation of a care management plan. Develop a plan for continuing care
- 4.20 Providers should consider annual screening of all patients with diabetes, especially those with a self-reported history of depression, for depressive symptoms with age-appropriate depression screening measures, recognizing that further evaluation will be necessary for individuals who have a positive screen

#### 5. Lifestyle Management

#### **A-grade Standards**

5.4 Diabetes self-management education and support should be patient centered, may be given in group or individual settings or using technology, and should be communicated with the entire diabetes care team.

#### **B-grade Standards**

5.1 In accordance with the national standards for diabetes self-management education and support, all people with diabetes should participate in diabetes self-management education to facilitate the knowledge, skills, and ability necessary for diabetes self-care. Diabetes self-management support is additionally recommended to assist with implementing and sustaining skills and behaviors needed for ongoing self-management.

#### 6. Obesity Management

#### **A-grade Standards**

8.2 Diet, physical activity, and behavioral therapy designed to achieve and maintain >5% weight loss should be prescribed for patients with type 2 diabetes who are overweight or obese and ready to achieve weight loss

#### **B-grade Standards**

8.1 At each patient encounter, BMI should be calculated and documented in the medical record

#### 7. Older Adults

#### **B-grade Standards**

12.3 Screening for early detection of mild cognitive impairment or dementia and depression is indicated for adults 65 years of age or older at the initial visit and annually as appropriate

#### 8. Children

#### **A-grade Standards**

13.15 Starting at puberty, preconception counseling should be incorporated into routine diabetes care for all girls of childbearing potential

#### **B-grade Standards**

13.1 Youth with type 1 diabetes and parents/caregivers (for patients aged ,18 years) should receive culturally sensitive and developmentally appropriate individualized diabetes self-management education and support according to national standards at diagnosis and routinely thereafter.

- 13.12 Providers should consider asking youth and their parents about social adjustment (peer relationships) and school performance to determine whether further intervention is needed.
- 13.13 Assess youth with diabetes for psychosocial and diabetes related distress, generally starting at 7–8 years of age
- 13.16 Begin screening youth with type 1 diabetes for eating disorders between 10 and 12 years of age. The Diabetes Eating Problems Survey- Revised (DEPS-R) is a reliable, valid, and brief screening tool for identifying disturbed eating behavior

## **APPENDIX C**

Table 2. Status of Project Deliverables							
Deliverables	Proposed due date	Completed	Status				
Formative Activities							
Six key informant interview guides and script created	Months 1-2	100%					
Interviews by sector			# Invited (I) # Accepted (A) #Declined/NoResponse(D/NR) #PendingSchedule (PS)				
3 - Medical providers (primary/internal medicine)	Months 3- 5	100%	# (I) = 8 # (A)=3 # (D/NR) = 5 # (PS) =0				
2 - Quality improvement health systems	Months 3- 5	100%	# (I) = 5 # (A)=2 # (D/NR) = 3 # (PS) =0				
2 - Diabetes resource organizations	Months 3-5	100%	# (I) = 4 # (A)=2 # (D/NR) = 2				
2 - Health insurance providers	Months 3-5	100%	# (I) = 5 # (A)=2 # (D/NR) = 3 # (PS) =1				
3 - Worksite employers	Months 3-5	100%	# (I) = 11 # (A)=3 # (D/NR) = 8 # (PS) =0				
4 - School district leaderships	Months 3-5	100%	# (I) = 12 # (A)=4 # (D/NR) = 8				
Total Completed = 16/16		100%	,				
Data Analysis: Transcription and coding							
Interviews transcribed	Months 3 - 5	100%					
Coding and analysis	Months 3 -5	Coding 16 interviews	In data reduction				
Preliminary Report	Month 6		1/15/2020-2/27/2020				

#### **APPENDIX D**

# Table 3. QUALITTIVE BRIEF BULLTED SUMMARY AND QUALITATIVE DATA BY COLLABORATIVE CARE MODEL SECTORS

Highlighted sections 1 - 8 cover the overarching standards of care. Within each are themes related to specific standards of care. The last section includes suggestions and recommendations to meet standards of care or improve diabetes in El Paso county.

- a) Appropriate resources exist to meet the recommended standards of care, and
- b) Identify community/culture-centered strategies for the County of El Paso to best reach the recommended standards of care.

#### Objective 1. Appropriate resources exist to meet the recommended standards of care

1 Population health meeting needs of all populations including underserviced and vulnerable

Interviews reveal that organizations that are use federal funds, who are federally funded, or organizations who serve clients with low income integrate more of a comprehensive approach, utilize community resources and partnerships to meet the needs of underserved and vulnerable populations more than private health care sectors or organizations that do not serve low income populations.

On themes: Partnerships, Connecting Sectors, Collaboration

- Consensus that this needs to occur
- Sense that federally funded agencies do well at addressing/aiming to address social context and Chronic Care Model
- Better process for data sharing
- Clinicians perceive insurance as a barrier for effective diabetes treatment/care
  - Lack of reimbursement for dietitians
  - Lack of flexibility in covering variety of prescription medications

#### **HEALTH SYSTEM**

Medical Clinicians

#### DIABETES CARE APPROACH

Clinician 1: "Respondent: Well, the approaches that we use for people that live with diabetes is through the eyes of a healthcare team. And it will involve the physician or the primary care. It will involve the specialist. It will involve the dietician. It will involve social worker or manage - case management. And we're all trying to convey the same message to the patient about the good glucose control. And by having good glucose control, it's going to be taking the measure in the blood every so often. Doing lifestyle changes, doing exercise, diet, getting those necessary supplies that they need, and ultimately preventing complications."

Well, definitely if we need to measure the hemoglobin A1c every three months, we need to get appointments every three months. We need to teach them how to count the carbohydrates, how they're measuring their glucose, of what time, what's better for them and incorporate it into their daily routines. So I found that it's more - we have a lot more success in getting compliance from the patients when we show the understanding of their habits, their culture and how they approach different problems."

#### PATIENT DECISION SUPPORT TOOLS

Clinician 1: Respondent: Well, first we need to establish a good clinician patient relationship where if we establish the understanding in the eyes of the patient that we have in regards to diabetes and how we can help them. And making the patient the center of the approach, which is the patient center approach, then we will start having a higher success rate with the control of the diabetes. Also we need to have a cultural competent care that is extremely important. Otherwise the patient will not trust what our recommendations are for them to follow and to achieve a better control.

#### **CULTURAL COMPETENCE**

Clinician 1: "Respondent: Well, cultural competence might look in the form of not dismissing all the traditional ways of controlling sugar - traditional ways of cooking. The way that we live in our day-to-day life and incorporate the medical evidence or evidence-based approaches into that day-to-day living of the patient."

#### **TIMELY TREATMENT**

#### Clinician 1: Respondent:

Clinician 1: Respondent: 'Well, we follow electronic health record with flags that will tell us when we're to do an intervention. We also established a report with the patient that we need to tell them a certain routine that every three months we need to see them. If they don't show up, we need to call them, which are the recall system and basically also involving other relatives because we Hispanics rely a lot on relative and it's a big family nucleus."

#### **BARRIER TO CARE**

Clinician 1: "Respondent: Well, I think one of the biggest barriers would be the financial burden that it is to primary care providers to absorb the cost of the other members of the healthcare team when those benefits are not covered with their insurance.

Interviewer: So it gets back to insurance coverage.

Respondent: And especially in the area that we live in, there's a high percentage of uninsured patients. If we increase the rate that we charge for the visits, then it's going to become prohibiting for the patients to come every three months. So everything is revolving about the financial situation."

#### **CLINICIAN 2**

#### **Diabetes Care Approach**

Respondent: "Yeah, I mean the direction with the patient is very individual. I mean we have very different types of patients with diabetes. We have not just one single patient with one disease. The disease behaves differently in different persons, according to the duration of the disease, if this is type 1 or type 2. Sometimes we have a combination of type 1 and type 2 together. So, the interaction with the patient is highly dependent on the type of patient that we do have........ If a patient comes with a slight elevation in blood sugars, versus a patient that has extremely high blood sugar. So, the interventions are much more urgent on those that do have really uncontrolled diabetes. So, if the patient has - like a patient that I had today - newly diagnosed type 1, which is not that common to find. But because the most common type is type 2. But I have a patient, 20-year-old, with newly diagnosed type 1. Very high blood sugars. Hemoglobin A1C of 13.9 with blood sugars numbers in the 300 to 400. Of course, that patients requires an aggressive intervention. So I requested evaluation by the diabetes educator to be done within the next few days."

Respondent: "Yeah, it is important for the patient to be proactive in the management of their disease. I mean some of them, they kind of come here with the idea that, well, I'm going to fix the problem for them. But yeah, part of the teaching to the patient is that they are in charge and they are responsible for what is going on. And we as providers, together with the team of diabetes educator that we work with, we are there to work with them. And to help control the disease. But it is their responsibility always."

#### Clinician 2, Multidisciplinary Team

Respondent: "Well, it is very important for us, providers, to have a team that will work with us. A dietitian is extremely important for the team, and a diabetes educator. And that's why I use the [omitted organization]. But not always they're able to see anyone. Especially depending on the insurance the patient does have. So, yeah, to help them if the insurance is a key. If they do pay for education, that is what we do need. And if they don't pay, patients will not be able most of the time to afford on their own that diabetes education."

#### Clinician 2, Social Context

Interviewer: So the next question, when preparing a diabetes treatment plan, how do you assess the patient's social context like food insecurity, housing stability, financial barriers, and how is this information applied to treatment decisions

Respondent: "Okay. There are a lot of different medications for diabetes. Lots of them. Some of them much better than others. And we always try here in the office, we always try to pick the medication that will be the best for the patient. But, unfortunately, not always that will translate into a patient being able to get those medications because of different aspects. Coverage of the medication is the main one. Sometimes I mean patients may be very scared of the potential side effects of the medication. The social status of the patient, it is highly dependent on how much they will be able to follow the recommendations. And also the level of trust that they do have with us is important for them to do whatever they're supposed to do. I mean we have a broad range of different types of patients. Like a patient today, again, I mean I had a patient that I know for a long, long time. And I've been prescribing different medication. She came back today saying, no, two months ago she heard on the TV that the medication may cause some side effects and she decided to stop her own. Even though I have a very good rapport with the patient, they do those types of things. But again, those type of behaviors that they do have are highly dependent on the social status and education status that they do have. So, yes, the best patients in general, one tends to think are the more educated ones. Not always. Sometimes the ones that they have a good level of trust are sometimes better patients. So, again, those are barriers that you face while you are treating your patients. Yeah, it is all a matter of education and the level of trust they do have with their providers.

Respondent: "It would be ideal to have a social worker for each one of these patients. Unfortunately, that is not feasible nowadays. But yeah, we have that for patients very frequently. I mean those that it is extremely difficult for us to treat them because they do not have the means. So, frequently we end up saying, okay, that we have no knowledge on how much medication they're using, frequently insulin. If they're using. If they really do check blood sugars or not. If they do their diet. I mean they do not have the support. And having a social worker would be ideal. But that's not available."

#### Clinician 2, Referral to community resources

Interviewer: [omitted name] mentioned that he's referring patients to[omitted organization] for diabetes education.

Interviewer: What barriers do you believe keep your diabetes care team from utilizing community resources?

Respondent: "I guess lack of knowledge. I mean if we don't know all the resources, we will not use them. So, personally I wonder if there is any resources that I can use that I'm not using. It's lack of knowledge."

#### Clinician 2, Technology

Respondent: Well, the technology that became available are the CGMS data. And it is helpful because patients are able to scan the data from the sensor into their phones. And that information can be shared among a lot of other people. Especially on the younger population, this is a very useful tool so the parents and the providers are able to follow what happened with these blood sugars at a distance.

#### **CLINICIAN 3**

#### Clinician 3 Diabetes Care Approach

Respondent: "Pretty much the plan is me. Okay? And I think it's very important that here in [omitted city] there's not that many physicians per patients. So most practices have a lot of patients and it's really hard to take care of all of those patients by one sole

provider, which we hire mid levels and things like that. So as a community, I think it's the whole group of us that take care of these patients, but there's not that many specialists as well - especially endocrinologists. So I usually take care. Primary care doctors are the ones that have to be dealing with these patients and taking care of these patients and avoiding other comorbidities or complications from this disease."

"So pretty much, I mean that's - usually it's me. My office is - I have an MA and also we - and I also have a dietician in my office, which helps me manage these patients."

Respondent: "Nutrition. We provide them with information regarding the diabetes, and we give them information as far as now with social media and all these technology, there's a lot of apps where patients can do carb counting and to measure the calories, what they're going to ingest. So there's a lot more tools that we have available nowadays than we had prior."

#### **Clinician 3 Decision Support Tools**

Respondent: "I usually do it based on my patient's diabetes and how well controlled they are.

Respondent: The good ones, I mean, I just let them on cruise control and they're actually being monitored every four months or every six months. As you know, I mean, we focus a lot on our hemoglobin A1c, patients that are controlled. I mean, usually, sometimes I do it twice a year. I do an annual exam on all my patients and everybody gets an A1c. Patients that are not controlled every three months we do A1c's. Based on that, I decide to send them to the dietician if they're not controlled. And she helps me with all the education as far as the diet, carb counting."

#### **Clinician 3 Evidence Based Guidelines**

Respondent: "I do the diabetic association and I'm also - articles. Up To Date is a big one that I use most of the time - Up To Date. I don't know if you've heard about it, but -- Interviewer: No. What is that?

Respondent: Up To Date is kind of like the source for all physicians to - for any disease. And it's a fee that we pay for it. Every physician usually has it on their phone and it gives you all the evidence-based articles as well. And then it just summarizes everything and tells you these are the most important. These research showed better outcomes."

#### Clinician 3 Multidisciplinary Team

Respondent: "I think the dietician is a key component for any physician that is treating diabetic patients. Because, as you know, I mean diabetes is focused more on compliance and diet, exercise, lifestyle changes. So I think spending also a good amount of time with the patient and providing that education is the key for success. And my type of practice, ......So I honestly do not have - very few uncontrolled diabetic patients because --And I think the success, to answer your question, is the time and education to the patient and being able to have my dietician go through and reinforce everything that I've told them more in detail."

#### **Clinician 3 Community Resource Referral**

Respondent: "I do. The one I use is at the [omitted, hospital name]. That's the one I usually do, but I hardly - I mean I have like one or two patients that are really like clueless and - but most of them, I do it in my office."

Respondent: "Making them aware of their resources because, I mean, nobody has come to my office and telling me we have these resources for your patients. And even some other patients from the hospital, they tell me, well, I mean there's no resources. All classes are booked. We don't have that many classes. So I mean, it's a big problem. Like, which is why you guys are doing this."

#### **Clinician 3 Patient Preference**

Respondent: I think, I mean, the whole healthcare system is broken. Okay? And that's where it needs to be fixed. There's not enough resources for these patients that cannot afford it. There's insurance companies are also a big problem. And I can tell you that as physicians we get rated, regarding how well you have your patient's control. So have a major insurance company, they'll say, well this doctor's having his patients very well controlled. So good star for him and everything. But sometimes the insurance will say you don't have your patient very well controlled. And my problem that I have, and I have had these discussions with insurance, is that, well I asked you if I want to prescribe this medication for my patient and you don't cover it. So how do you expect me to control your patient when you're only authorizing Metformin? And [00:15:02 unintelligible] which are old school medications? There - I honestly think there should not be an uncontrolled diabetic, because there's a lot of new medications. We have GLP-1s as well as GLP-2s, DPP-4s. We have insulins, long acting insulins, but they are very expensive. So when I want to prescribe it to my patients, even with the ones that have insurance, they say no. And I'm like, so I have to - they tell me this is what my insurance covers. And I'm like, well, I mean we already have you on those. You need another one.....

Respondent: So then I have to go to plain old insulin and I mean --Insulin causes weight gain and it's just the vicious cycle from there. And as you know, there's a lot of new medications out there that help decrease mortality and those patients that cannot afford them, they can't get them.

#### Clinician 3 Referral

Interviewer: Is it difficult, or do you find it fairly easily to refer out?

Respondent: "Very difficult because we don't have any. Like, I mean, if you want a psychiatrist, good luck. I mean, honestly, some of them are - don't take insurance. Most of them are only cash pay. So that's a big one. We don't have psychiatrists. Psychologists also they cannot prescribe here in the state of Texas. Clinical psychologists. Okay. That's a big one. I sometimes refer my patients. I like psychologists better than a psychiatrist because they work on both ends. Not only prescribing a medication, but --....Yeah. So I usually prescribe them, and I have to send them to [omitted city] because the ones here do not - cannot prescribe.

Respondent: And endocrinologist, there's like just five? And they're close to retiring, some of them. So I think that's going to be a big problem. So this issue is actually, we have as primary care doctors, have to treat. And we have to do all this on our own. Some patients, I have one that she's a Type 1 uncontrolled before I even started this practice. She has been uncontrolled for five years from now and I've worked with her a lot and everything. The dietician - we couldn't get through. So I just referred her to an endocrinologist and I have to send her to [omitted city].

Respondent: "I use a lot of home health agencies. They have a social worker.

They're helpful, but I mean some of them can be better.

Interviewer: In what way?

Respondent: I mean, more - the problem with healthcare is that it's like a factual volume-based and the more they see, because the reimbursements for health care have come down. So in order to make up for that, they see twice the amount of people. So what I mean, I can tell you for sure when you go to the doctor's just you're in there and legal you need refills and that's it. Okay. Everything's fine. And they walk out the door like in ten minutes. So you're - I mean, and that's the way it is everywhere."

#### REFERRAL

QI 1: Respondent: One of the things that we do, when a patient doesn't have funding, you know, and they're in the hospital and they have these needs. We have a program that allows home health to go without any price. And so the home health nurse will go in and will also look at the label reading, look at their cabinets and see what kind of foods they're doing and things like that. So they also give them a scale. They give them a meter and a blood pressure cuff. I couldn't say it...

#### **REFERRAL**

QI 2: [we refer home health services, physical activity-weight loss]

Quality Improvement

#### DATA REGISTRIES

QI 1: We have several of them actually. We have a thing, one called tele-tracking and it tells me which diabetics are here in the hospital. We also utilize [omitted system name] and we give them all the - they get a lot of data from our computer and then they let me know which are the critical ones, which ones were preventable, what we can do with. And so we have those two systems right now.

#### **DATA REGISTRIES**

QI2: Respondent: "So, we use [omitted database software], their EMR. And that's implemented throughout the entire hospital system that we're at. From there, I actually have met with their IT specialist. And so, she's actually shown me how they're able to pull pretty much anything you want to look up. We can look up via based on hemoglobin A1Cs. We can look up just how many patients that we have, just from the diagnosis when they've come in as well too. Right when they first hit the hospital as well. So, it really seems to be focused on using the EMR. And that's something throughout ER, throughout all floors as well too. So, that would be the main thing that I've seen. That's how they actually pull any information that we really need. It can be through ever since the hospital opened. It can be from - you can pretty much tailor it to any specific quantitative data that you needed, for the most part."

"So, the good thing is, that I've seen with the entire hospital system that we have here, at least that I know of, all of the [omitted, hospital name] all use [omitted database software]. So, I know that they're all linked. And they give physicians the ability when they get credentialed to actually sign up for a portal. So, they can literally access that if they even have like their phone. I can even log in if I wanted to right now and I could have access to [omitted database software] right now to be able to have that information.

....And then the good thing that I believe is going to be implemented within the next few months, if it already hasn't, is that we're finally linking with outside individual organizations that also run [omitted database software]. So, we'll be able to share information with them as well too, if we have a mutual patient as well too. Which is sorely needed kind of across the entire country as well too, but at least they're doing that with [omitted database software] now."

#### **QI2 Decision support tools**

Respondent 1: "And sometimes the system will automatically give us that alert which will pop up and say, hey, you probably need to check their glucose, things like that. If they actually end up having the diagnosis of diabetes that we as the providers put in, then it will automatically prompt like a diabetes education as well too."

[on quality department], "but I don't know the specifics on diabetes. ......So, to be honest, I don't know how much the focus is on that as well. So, if there is no focus it definitely would probably be worthwhile to add that in there. Because we have sepsis protocols, all these other ones that Quality looks at, but I haven't had one specifically for diabetes that I've seen."

# QI2 Evidence based guidelines

Respondent: "I know there are definitely a lot of different ones, but the ones that I know we use are going to be the American Diabetes Association Guidelines, for sure."

# **Patient Preferences:**

QI 1: Respondent: "It's all has to do with ADA, American Diabetes Association. Interviewer: So it's more of compliant with ADA recommended treatment care plans and - okay. So in this process as you were doing this, how do you integrate patients individual preferences for the type of care that they receive? Do you consider their preferences? definitely, definitely. We have an - we have an accredited outpatient diabetes program. And the first thing that we do is that we make an assessment. We meet with them before they come to class or even before they go to medical nutrition therapy, we do an assessment on them. And so we bring them in. We want to know what their goals are. We want to know what medications they're using. We want to know, you know, where they want to go and what their learning needs are. And so we do a complete assessment and then we go - we do a diagnosis. We do a care plan and then we go from there. And that patient is always involved, or family members if they come."

# **COMMUNITY RESOURCES:**

"Well, we're lucky because we're a county hospital, so we have a lot of - how do you call it? Help. Discount. And we have a lot of, you know, resources. So even if somebody is not able to come to the hospital or to our program, we have transportation that is provided for them. So we have a lot of discount programs that we could utilize within our system to be able to help them meet their, you know - their goals and their needs.

Interviewer: Okay. So you feel that the community sources are adequate in terms of fulfilling -

Respondent: For our organization. Maybe not for the other organizations. They don't have what we have. But since we are a [omitted type of hospital], it gives us that flexibility."

# COMMUNITY LINKAGES/RESOURCES

Diabetes Resource Organizations

SOCAL CONTEXT-LINKAGES-LAY HEALTH-TEAM BASED-COMMUNITY RESOURCES-TECHNOLOGY-PATIENT PREFERENCES-REFERRALS- DATA REGISTRIES

# LINKAGES/REFERRALS

Resource Org 1:

"Our center is a,...federal qualified health center. And for that we have integrated services. Under the integrated services, obviously we provide diabetes care, and we have two ways to do it. We do - the diabetes care through our medical providers and is under intervention. ... and also we provide behavioral health services in our health center and we provide behavioral health services to our diabetes clients or the diabetes patients. And as well dental services...... contracts are for to refer clients, especially for a specialist,.... And we do outreach in different ways. We do outreach through presentations. We do outreach to health fairs, events and community events. .... And our main goal is to access community to the services. How we do that? In the internal navigation, we were - we have three, four navigators here in our building that in these building in which they work with partners, external partners....... We are in 13 schools in [omitted school district] and we have our navigators there in which we - these navigators, the main piece that they do is access clients. They access students to behavioral health services that we provide through LPCs inside of the schools...... external partners

that we, for example [omitted treatment place] or with the court - in the court and also in the consulate. We have different partners in which one time a week, one day a week, we go with them and we do a - we act as - we raise our clients, their clients to our services. This is the external - external navigation.

......But at the same time the navigators access their students' families and their students' community to any kind of services that they need, including diabetes services, primary care services, behavioral health, dental, whatever, is another piece." "And the main goal for the navigation piece is that it avoids any barriers that the clients have in order to access the services."

# **REFERRALS**

Resource Org 1:

"Our clinic [omitted company name] we have accredited diabetes programs, accredited self-management diabetes program. This accreditation is under American Association of Diabetes Educators..... And we would like to - we have a couple collaboration with some doctors in the community, external doctors in the community. I have two. I believe we have two informal collaborations. We don't have MOU's or nothing in place with them. Only informal collaborations that they send us their clients for the education because they don't have that piece. But for us will be very beneficial if we can have more really formal collaboration with other providers, private providers in the community who doesn't have these piece, but they still have clients with diabetes that they can send it to us for the education, will be something very helpful and sustainable, something that can sustain us, our strategic - help us to sustain the other strategies in order to serve the community that doesn't have insurance. But in order to do that, we have been trying out different strategies to do it, to start going to see certain doctors, knock on the doors, but it's challenging. Doctors outside are so busy, they don't have time to listen. And then and also sometimes, you know - I don't know. Maybe we don't have the time as well to invest in going do these connections and this - really these connections to do this. But in terms of how can be better or more strong piece, this piece will be very, very helpful. If we can develop as a community, something that private providers can associate with us to send clients for the education."

# **REFERRALS**

Resource Org 2:

"So, we have relationships with primary care physicians, endocrinologists in town where we work as a team because it's not just about people coming in and learning about diabetes and the changes that they can make. We have easy access to physicians, so we - and the physician see us as part of a team."

"one of the things that we do is we, you know, go and visit and a lot of physicians in town to talk to them about our program. And we haven't done that just because we are not able to keep up with the referrals."

### **BARRIERS/CHALLENGS**

Resource Org 2: "We should have – we need enough – we need educators and diabetes care specialists in all of these areas, and because we don't have enough of you know, those experts, some of these segments [poor, marginalized] of population are being you know, going unnoticed and ignored."

### **ON TECHNOLOGY USE:**

Resource Org 1: "We don't use a lot of technology to be honest with you. We are in the process, to be honest with you, we are in the process. We're having discussions to try to explore the possibility to include technology, especially for the diabetes prevention program for the DPP. But we are in that process in that to exploration. But right now technology? Really no. Really the work that we do is one to one and it's mostly person to person."

Resource Org 2: "So, the technology wise, what we have found is very few patients that have come through our program are really savvy in technology, and some of them just only use – they may have a smartphone, but they really just use it for making calls and not necessarily –

they may not even have like a search engine. I mean like a Google to be able to search because when we do a lot of times nutrition or we have a lot of apps for being able to track their blood sugars, and a lot of patients are not, and it's kind of intimidating for them to use the technology. So, we don't." "it's also a matter of, you know, having the resources and the manpower to be able to really train people and teach people how to do all of those things, and we are not."

# LAY HEATLH

Resource Org 2:

"Interviewer: What about community health workers? Respondent: So, again, right now, we're not. We don't.

# Health Insurance Providers

### **REFERRALS**

•

Health Insurance 1: "We are a local health plan here.....so the mission of [omitted insurance] is to provide quality care within the community itself...... that has the majority of the population, so we have a lot of responsibility with our community.

... we reach out to members based on doctors' referrals, depending on the medical condition. We do have community referrals - if they came across any member that is struggling with diabetes, for instance. We have a collaboration with the school nurses that we can also get those referrals so we can help, and claims data..... We do a lot of service coordination, I think is our priority......We do have a social needs assessment within the appointment, and as you talk to these parents, and you build up rapport, these parents start disclosing to you more and more and more, and that's when you have to be very selective on how to help. I have an own thing that I say - you have to teach how to get the fish, not give them the fish all the time, you know? "

"But the way that we receive referrals from the hospital is by our utilization review team, who are the nurses that review admissions from the hospitals, okay?"

"I have a very good relationship with [omitted name], so I'm able to even call his cellphone number, and this is what's going on, [omitted name] - can you please help our member? And always very willing to help. [omitted college] is very more, they're more difficult to navigate just because they receive so many phone calls, they receive so many requests that they have a 24-hour window to call you back. But also with the medical assistants, I have a good relationship, so I email and, you know, I don't mind knick-knacks here and there, so I can help."

# **DATA REGISTRIES**

Health Insurance 1: "We utilize claim data on certain diagnoses that identify patients, for instance, with new onset diabetes type II, and that's how we reach out to them."

Health Insurance 1: "Okay - Emergency rooms is a huge issue. Not because of [omitted insurance name] or any - I don't know about other health plans. But one of the things that we are currently in, our QI department is working to get real data, okay?..... There is a way to get real data, but the hospitals sometimes, they don't do it. We just have, I think, two to three hospitals that provide us with daily data, and as soon as they hit QI, I think they have to disseminate the diagnosis and send it to our supervisor. But the way that we

receive referrals from the hospital is by our utilization review team, who are the nurses that review admissions from the hospitals, okay?.....

Because them they do have access to admissions, okay? Not to emergency room - emergency room, it's kind of -.......And emergency room, we receive a report on a monthly basis for multiple admissions.

Those are also under Disease Management, and yes, we receive a lot of diabetes type 2....

Interviewer: So it's not until you get the multiple visits that you follow up?

Respondent: Real data from the hospitals, they're working - right now we have a focus group that is working on how to make it happen, because it's hard. And I think that, because it's one of the busiest places in the hospital.

...... I think they do - it's just a matter of, if they wanted to commit to send out those lists. It isn't about the hospitals - I mean, as soon as we receive anything, like for instance, for me I receive a referral from these people to get admitted to a hospital, I go to the hospitals, okay, and I just go in, present myself and let them know the benefits that they have as they receive the new diagnosis, diabetes type I, diabetes type II. I can tell you that 80 percent of the members, they call me back, or I call them back to schedule a home visit so I can start facilitating if they need a glucose monitor, or if they need test strips, what type of medication - we have access to our pharmacy provider, which is [omitted pharmacy provider name], and this provider gives us a database, real time database with the information of each member's medications.

Interviewer: Okay. So you have real time data from the pharmacy?

Respondent: Yes.

Interviewer: You have real time data from admissions?

Respondent: Yes.

Interviewer: But the ER is the thing that is not -

Respondent: That's not very -

Interviewer: - consistent?

Respondent: there you go, consistent.

Interviewer: You feel that they just need to have a better -

Respondent: A better process.

Interviewer: A better process within the hospital, okay. And then, the information that you get from the patient, you do provide that back to the providers, their doctors?

Respondent: Yes, um-hmm - we do that service collaboration with the doctors."

#### **TECHNOLOGY**

Health Insurance 1:

"Interviewer: Do you use any technology-assisted diabetes prevention programs for your clients? You said that they have Internet on their phone.

Respondent: Yes. There are some gadgets like - I don't recall the name, but I think I had educated them on a couple of gadgets that there are.

Interviewer: Like apps?

Respondent: Apps that they can, especially with their eating. We have one for diabetes type I that they help the parents count the carbs - that is super unique, and that one I

learned in a seminar that we went to [omitted college], and it was awesome, because they can count the carbs.

And you know what? We try to educate as much as we can whenever they presented any conference around the area. I have only [omitted organization], they're the ones that put

conference around the area. I have only [omitted organization], they're the ones that put together one [omitted program], and I like that one. This year was very unique because the person did a lot of technology for these members. So whenever it comes to nutrition, I think I have like three, got to look in the App Store."

### PATIENT PREFERENCE-SATISFACTION

Health Insurance 1:

"I want to say that we have to be more understanding of their condition. Don't be so - be more understanding, be more kind to them, and you know, don't instruct them only under the medical side. See the different aspects of their lives - be observative. I'm not talking about the surroundings of the house, or the way that they talk about the food, the way they talk about how they feel emotionally. I think that in order for you to change someone's life, you need to be humble. You need to be understanding, and motivate them. I think motivation is important - behavior modification it's a key element on this population"......." Yes, making them feel good, and making them understand that there is help, that they're not alone, that - you know, some patients take education in a different way, okay? And you have to be, when you talk to them, you have to pay attention on how their emotions are reflected."

School Districts

# REFERRAL STUDENT

School District 1: "...on our referrals we do a minimum of three. One has to be a phone call, and two letters to the parent, to make sure that we get some sort of response."

# 2 Diabetes Diagnosis (risks, tools, algorithms)

The use of proper tools are being used for the diagnosis of diabetes, with women who have a history of gestational diabetes being screened less. Basic intake of risk is being conducted. Better alignment/communication between different medical provided may be needed as it relates to history of gestational diabetes or screening and diagnosing children ((i.e. Primary Care/OBGYN/Pediatricians/Specialist)

Basic assessments done,	Better alignment/com	munication between	different medical	providers

HEALTH SYST	EM
•	Health Care Providers
	HOSPITAL
•	Quality Improvement
	HOSPITAL INDATIENT/DISCHARGE

"We do it pretty well. If a patient comes in and has - and is QI1: Respondent: identified with - that has diabetes, the power plan, the physician power plan is initiated. When that is initiated, we go in and we teach them, you know, like survival skills.

You have educators that will go to the patient's room and we give them survival skills to be able to manage when they come back out. They also have a consult for an inpatient dietitian to go visit them also. So they go and see them as well. Before they get discharged, we also - they're transferring from pill to insulin. They also start teaching them on the bedside nurse to be able to manage their insulin. So by the time they come out, they already know how to do that. So we - and we give them supplies. We give them supplies of 30 days plus one. That way they're able to go see their primary care doctor within that period of time and not have to come back to the hospital. We get them a prime - if they don't have a primary care doctor, we get them an appointment with one of our clinics within seven days to go see a primary care doctor, and then they can start managing their patient - the patient itself. If they don't have funding, right, we some - we give them home health as well. So we're very aggressive in our diabetes treatment in our hospital."

# COMMUNITY LINKAGES/RESOURCES

Diabetes Resource Organizations

Resource Org 1: "Yes, we have as well under my direction - we have a big program as well that call diabetes prevention. We are actually - we are a part of their diabetes prevention program, national diabetes prevention and strategic. And actually yesterday one of - last week we received the notification under the CDC that we get the full accreditation. We are the first center in [omitted city name] that we are accredited with the - under the CDC for under the diabetes prevention program to with a full accreditation." "Right now we are doing this piece through lifestyle coaches. And one of those, we have three lifestyle coaches that we do that to implement the curriculum. We have been focused the curriculum with employees."

### BARRIERS/CHALLENGES

Resource Org 1: "And to be honest with you has been very challenging because it's a very comprehensive program, is one year program, and it's very extensive. Is very good program. But for our community, it's a lot. There is - we are competing with a lot of priorities that they have. And one of the biggest challenge with this programs is that really you need to have accomplished two goals. And one of the goals is to reduce, weight loss and increase the physical activity. And you need to prove that in order to do - achieve your goals. And it's challenging for the community. This is why we move that the direction to implement this program more with employees, with people, with audience that are - audience that have more readiness. And also audience that are - that scout the audience in a certain place. We are providing, for example, in [omitted company name] we are providing these classes during the lunchtime and here in [omitted company name] the organization is giving half an hour for the work and employees put another half an hour in the last of the day. And you know, these doing, these certain adjustments, we see that this program works better and is very good program for employees, not for the community at this point. But again, this new fiscal year we are going to start interviewing again, trying with another group of people in the community and we'll see how fully we can have a success in that. This is one piece. Another piece that we do with preventing diabetes is we have a - we have been building our capacity, or people to develop a new program that we call care coordination."

Resource Org 2: "A lot of times, what we try to do is really educate the physicians. Also on that is letting them know that if they have any patients with pre-diabetes to send them our way because we really put them through the same classes as someone who has diabetes because we think it's they – education is the key in that in prevention."

# School Districts

# **EMPLOYEE DIABETES DIAGNOSIS**

School District 1: "At the beginning of the year, each school nurse—and we do have a school nurse for each campus—they will usually present at the beginning of the year, and they go over diabetes and things like that, as well as, like, asthma and all of that.

Then they will—it's only voluntary because some people do not want to know—do not want other people to know their diagnoses. But, for those people that are willing, the nurse gets their emergency information, and they let them know what medication they're on, and get a list of their medication. And then that way they can kind of keep tabs on that—on that individual, to see if they're going okay with their diabetes and they periodically check on them.

So, it's only voluntary—not all of our staff participates, because some staff feel that it's an invasion of their privacy. But, our nurses do that at the beginning of the year to find out from the staff who is diabetic. I mean, they always find out with the children, but staff—any staff that has health issues, or has diabetes issues, or anything like that."

### STUDENT DIABETES DIAGNOSIS

School District 1: "We—at the beginning of the year—we do—when they do an online registration, they do a health questionnaire—the parents.

The nurses review it, and then they find out who are students that are—that have diabetes, or any children—some of the parents will write when they are prediabetic. And then the nurse will call them, or bring them in physically, to find out, exactly. We get orders from them, and who are they seeing—so we follow-up to make sure that we know all the information on that particular student.

When we do our screenings, we do—acanthosis screenings, and even though they are just mandated for first, third, fifth, seventh by the state, we do—if you see a student—all of our nurses—if we see a student that's, say, they're in for scoliosis-screening, or they're in for because they're sick with a cold—if we notice that they have the acanthosis on them, we'll go ahead and screen them, write them up, and send a referral home."

# 3. Diabetes Prevention and Delay

- 1. Federally funded organizations address and aim to address prevention & delay
- 2. Private health care sector less aware of prevention programs or specialty diabetes educators
- 3. Partnerships across sectors needed to reach recommendation
- 4. Not as much use of technology for prevention or delay

# **HEALTH SYSTEM**

Health Care Providers

### Clinician 2

Interviewer: Now that you mentioned that diabetes prevention program, did you refer patients to those programs here in [omitted city]?

Respondent: "I'm not aware of the programs here for diabetes prevention in [omitted city]."

### Clinician 3:

Interviewer: Are you familiar with the Diabetes Prevention Program?

- "Hmm no."
- On referring prediabetes to in-house dietician "refer the ones that are really, really overweight and they have other risk factors they have uncontrolled hyperlipidemia so that way we can work on both things. And diet is a major major component. So those are the ones that usually get referred"

# Quality Improvement

QI 2: Interviewer: Are you familiar with the Diabetes Prevention Program?

"I don't believe so"

"On knowing who does diabetes education/care: "I think we know of the endocrinologist here. But I don't think that diabetes necessarily has to go that far. I think it can be done by primary care and I don't know how much that everyone knows there is a certification that a provider can get that makes you a certified diabetic educator in some form. So I don't think that there is a big connection with it unfortunately.... I really don't think so. I could be wrong but when I talk to the providers whether it's a nurse practitioner, an MD or PA, they will say 'oh yeah my diabetic patient this this and that' but I don't know if they know how much of a specialty you can be just from treating diabetes. So I think that is still sorely needed as well too. "

# COMMUNITY LINKAGES/RESOURCES

Worksites/Employers

# Worksite 2:

Respondent: "So, we do offer a wellness program. There are definitely several incentives for employees to participate. On an annual basis we do know your numbers type of campaign. Which includes the entire basis of the biometrics, right? So, glucose, definitely. Cholesterol is another one. Size or circumference. All of those things. Because we know that [intangible] is leading to a lot of metabolic issues. So, we do that once a year. In order for employees to participate - they do get compensated, it's 100 percent free to them - but if they cost any of those biometrics it's \$20 per biometric that they cost. And that's on a monthly basis. So, we've incentivized the wellness program. In addition to that, employees if they join challenges - we do walking challenges, we do walking, getting your steps in type of challenges, or we've even done like lower your sugar intake. Because we know that sugar is the poison that leads to diabetes. So, we've done challenges

where a full month you have no sugar, also incentivized. So, those are points based, not necessarily funding. But they are points based and at the end of the year they do end up with a points-based system. So, let's say I have a thousand points. I can use that towards merchandise that we offer.

# Worksite 2 Challenge:

Interviewer.....How receptive have your employees been with this? Respondent: "Everywhere I've gone, part of the wellness program you almost always get that high percentage that is either very interested or not interested at all. And one of the things that I think as an organization we've ... not just as an organization, anywhere I've gone, it's really with communication. How do we become more effective and more engaging in communication, right? Because we can put out these studies and numbers and stats and it does not really carry a full impact.

I think part of the issue is that we've become a society that is so entrenched in, you know, Facebook, and going through it, and quick information that we really have to kind of figure out how do we engage in that sort of sense. Participation can be high, but we know that usually it's the same people that are engaged and participating and it's sometimes very difficult to reach some of the other individuals. They're so entrenched in habits.

Respondent: I truly feel that it's communication. Education. Not communication, education. I think a lot of it has to do with the exposure. So, let me just be very transparent. ......[omitted locations] Where we look at the demographics for those two locations we find that usually it's low education, low wages. And so what does that tell us? That tells us that we're not being effective in getting the communication to those two demographics, right? Low education and low income."

# School Districts

# PREVENTION EMPLOYEES/STAFF

School District 1: "We do have on each of our campuses we do have Wellness Coordinators. Let me see how many we have? We have two coordinators per campus. And they are independent of each other, but they set up little projects for each campus on Wednesdays—or Wellness Days—and you wear your Wellness t-shirt just to kind of remind everybody your focus on Wellness.

But they also set up—they may have a class or a campaign that they set up, individually, on their campus. It doesn't just target diabetes, there's other things like weight-reduction. Which, indirectly, targets diabetes. But they will do things like that, and diet......In the past, I know they've had some weight challenges to see if they could do more exercise. One was drinking more water, instead of drinking, like, sugary drinks. Another one was making sure that you walked. So they do things like that on their individual campus. As far as informing our staff about diabetes, we do have at the beginning of the year the staff has access to a program that we call Safe Schools.......And they do like bullying and mandatory training. But there is also training on diabetes, and diabetes-awareness, that they have access to. Our staff that are trained as unlicensed diabetes care assistance, it's mandatory that they review that training. But it's open to all of our staff, if they want to look at those trainings, as well.

Interviewer: And that happens once a year?

Respondent 1: Once a year. But they do have continued access throughout the year to that training, if they're interested to do that."

### INCENTIVES FOR PREVENTION

School District 1: "One of them, it's as simple as Jean Day, right?

Respondent 1: Yes.

Respondent 2: On Wednesday, when you're—

Respondent 1: You can wear your jeans with your t-shirt.

Respondent 2: You're part of the Wellness program. And it sounds so minimal, but I think our employees really enjoy when they can have a relaxed day of dress."

### REFERRAL TO COMMUNITY RESOURCES

School District 1: "I do know we have—I believe with two local gyms. They're not all local. Two gyms in [omitted city] where we do direct—and I do believe they get—

Respondent 1: They get a discount.

Respondent 2: Yeah, they do get a discount for joining."

### School District 1:

"we also opened a health clinic here in the district. And our staff and community members get priority. So it was important to [omitted name] to have something accessible. Something nearby. You know, you need to go to the doctor, or just a wellness check—it's less time off from work, because it's in our backyard. Like I said, our staff at community get priority. It's open to everyone, but they get priority on visits, and our students are also—and they also. We also now have a counselor as part of this health clinic. And it's on a sliding scale, so they accept everyone and they work with you depending on your income. So, to [omitted name], health is a huge—it's very, very important to him. He knows that his employees are healthy they'll perform better on the job, and they will take less time off. And then they do—there they do specifically do checks, like if you're concerned that you might be diabetic—they will do a check on you and do a physical for you. Employees as well as students, or even people out in the community of [omitted community name].

School District 1: "And we do have, also—I don't know the days that the ladies, come—but there is community where they can come and exercise. And that's in our building—the Student Support Services Building. They just sign-up and anybody in the community—it's usually mostly taken advantage of by, you know, the moms that are stay-at-home moms, and they will come and have their exercise days."

# **PREVENTION STUDENTS**

**School District 1:** our elementary PE and health teachers use a program called CATCH that teaches students about diabetes.

# **TECHNOLOGY**

School District 1: "does your organization implement technology, online wellness, or diabetes prevention programs?

Respondent 2: Not really. Respondent 1: Currently—

Respondent 2: Not right now. Not online."

# 4. Comprehensive Medical Evaluations

- Acknowledgement of importance
- Busy providers, lack of specialist, make it difficult
- Clinicians complete mental health assessments mostly subjectively
- Clinicians recognize lack of specialized care as a problem for comprehensive assessments
- Sense federally qualified health clinics/agencies follow a more comprehensive medical evaluation via federally approved tools, partnerships/contracts

# **HEALTH SYSTEM**

Health Care Providers

# Clinician 2, Tuberculosis

Interviewer: Do you also assess the patient for tuberculosis since there is evidence to show that tuberculosis is a risk factor for diabetes? And TB [00:34:12 relapse] if they have diabetes?

Respondent: "Not really."

# Clinician 2, Mental Health

Interviewer: So, do you or your team also assess the patient's emotional and behavioral well-being and apply this information into treatment decisions?

Respondent: "Sometimes. Not always. There is a clear association between depression and diabetes. There's no question about it. And the emotional status of the patient plays a big role in how good they are, in terms of following instructions.

Interviewer: Okay. And so, for example, for children, youth, adults, and older adults, is the emotional status assessed?

Respondent: Well, yeah, in a way, yes. We ask about depression frequently. But again, it's very individual. I mean, but yes, we address the emotional status whenever we can."

Interviewer: Okay. Just a few more questions. Have you ever had patients with diabetes that have a history of [00:35:37 committed interment] or dementia?

Respondent: Oh, yeah. Sure, we do, all the time.

Interviewer: And is there a process for screening those patients?

Respondent: If there is a thought about the possibility of dementia, yeah, there are some screening tests that can be done. I don't do it myself. I tend to refer to the specialist. Normally the neurologist to do that assessment for dementia.

Interviewer: Okay. And also, how do you screen for anxiety?

Respondent: Well, it's questioning to the patient. And sometimes it's as easy as entering the room and seeing how they do behave, just to know that they're very anxious. Or how they interact with you. They're normally the ones that will forward that information to you that they're very anxious. And then we provide treatment or we refer to someone to do that. I'm an endocrinologist. Not always I do deal with a known endocrine problem, and frequently I end up referring to the primary care doctor or a psychiatrist, whoever is taking care of that issue.

# Clinician 3: Tuberculosis Mental Health

Respondent: "I do not usually screen. Like you mean screening for tuberculosis? I don't hardly because then, I mean, we see it a lot here in [omitted]

city] because we're close to Mexico. But I mean, unless they have symptoms and that's when I would screen for tuberculosis. And most of the times, most patients are sometimes exposed already. They're either had the vaccine in Mexico, so it's just about symptoms pretty much. They're coughing blood, weight loss, night sweats, and oh my God stay away - out the door."

#### Clinician 3: Mental Health

Interviewer: How does your team assess emotional and behavioral wellbeing? Respondent: "Well, I mean, I usually do that and as I see my patients, something that I see a lot is patients that have depression tend to be uncompliant or tend to be in denial. Okay? And even in the hospital I see patients that have depression and they're just not compliant with their treatment. And it's a big issue because we have to obviously start treatment for depression and we're now treating other - another disease to help us treat this other disease. So, I mean that's - and I usually I'm the one that sees that. And while I'm talking to the patients and they might have already the diagnosis of depression, or I can see that they're having some symptoms of depression and then we can - I ask them all the questions about depression. If they do test positive, then I do start them on treatment to see a bit and it'll give me some assistance as far as being more compliant, even with medication, exercise, weight loss. I mean, if they're depressed, they don't want to do anything. So it's - that's where I see the major problem, to answer your question."

Interviewer: Yeah, what type of questions do you ask to determine? Respondent: Well, I mean, there are certain questions, like, first of all, I ask them straightforward, do you have to depression? Do you feel depressed? And some say yes, some say no. And if they say no, I usually ask them how is your sleep. Are you sleeping okay? Is there a decrease in appetite or even an increase in their appetite? The other question would be is do you have the energy to do the things that you once enjoyed in life? Like if you liked to go bowling and now you're not interested in bowling, or you don't want to be going out with your friends and you once enjoyed that. I mean, that's one of the major ones that I get a feeling they're depressed. Sleep, appetite, decreased concentration. I mean there's several questions for screening for depression.

Interviewer: Okay. Do you use a certain tool for that?

Respondent: No, but I mean those, that's -- The standard questions.

Interviewer: So what about anxiety?

Respondent: That's usually goes hand-in-hand with depression.

Interviewer: Are there specific questions for that one that you focus on, or you

use the same questions?

Respondent: Anxiety is pretty much just patients will tell you the diagnosis itself. I mean, I can't go out from my house. I feel like I'm going to - something's bad going to happen. I have heart palpitations. I went to the ER the other day because I was having chest pain and they're like young or something and they're no -

Interviewer: So you're picking up on the symptoms.

Respondent: All red flags."

# **Clinician 3 Cognitive Decline**

Interviewer: Okay. What about cognitive impairment? So you mentioned you have an older population and how do you assess that?...

Respondent: Well, I do screening tests for that. I do dementia screening and we ask several questions, certain to assess cognition, and that's another issue that might lead us to noncompliance. They either don't - they forget to take their medications. They can make their own judgment at some point and we have to rely on family support.

Quality Improvement

# **COMMUNITY LINKAGES/RESOURCES**

# Diabetes Resource Organizations

ASSESS-LANGUAGE-EDUC/LITERACY-ECON/BARRIERS-SOC/SERVICES-COMORBIDITIES-BARRIERS

#### **ASSESSMENTS**

Resource Org 1: "And we work - they work as a part of the workflow of the clinic and for giving to you an example, we have criteria for four comorbidities. One of these comorbidities obviously is diabetes. Another is hypertension and another is cholesterol and obesity. All of the people who come to the clinic with their medical providers and they see that they get - they have these criteria. They refer directly hand to hand to the care coordination. And through that the care coordination is start doing intervention with people who have diabetes already - intervention or prevention with people who have cholesterol or people who have obesity. And they do one to one and they - they work with them.

And they guide them in with the short-term goals, long-term goals, and the whole - a lot of steps in order that help them to achieve the goals and also to connect them to social services as well if they need it. And yes, this is more or less a piece that we have."

### **ASSESSMENTS**

Resource Org 1: "Yes, again, because we are FQHC federal qualified health center and we have integrated services. And talking about integrated services is that all that are clients have received every single time that they come to go see their doctor they received this PHQ9? I don't remember the name of the tests that they received for **depression or insanity**. PHQ9, I believe."

"But we had a couple of these specific tool that every single client, even though they come to wherever a thing. Maybe they come to see their doctor including maybe to come to **family planning**, they received this tool. And they answer this tool and always the provider have access to that and in order to **integrate behavioral health to their services**."

"if the doctors see that client needs behavioral health, he called the care manager and the care manager comes and start doing the treatment as well. But also if the client have diabetes, for example, they referred to the care coordination, we work holistically and we work in very, very close with the whole wellbeing of the person."

### **ECON ASSESS/BARRIERS**

Resource Org 1: "Actually right now, I don't know if it's relevant to this, but maybe it's a good point to bring is that we are in the moment because we received a grant to integrate financial wellness in our strategic, especially in clinical care. Here's our main funder is pushing the health center as well to collect information about social determinants of health. And with all the clients and you know that economical, financial, determent of health is big piece." .... And now we are in the point actually that we are going to start implementing that. Starting in January 2020, we going to start implementing financial wellness in this, and for example in the assessment that our care coordination have, we are going to start adding some questions to that. And if we see that the clients need help in that or a support, we going to do a certain level of education and then we going to be the accessibility to refer them to our health coaches."

### **SOCI SERV**

Resource Org 1: "How do you accommodate for people with special needs? For example, sign language.

Respondent: We have a contract. We have translators, how you say? A person who translates. Yes we have a contract, and if we have - we see that we need that, we bring the person and we do that. Yes.

Interviewer: Thank you. How did you accommodate your client's needs when they faced challenges in managing diabetes, for example, food insecurity, house instability. You mentioned financial.

Respondent: Really, care coordination is a big piece because again the care coordinator, the medical, they do the clinical intervention."

# ASSESS (HOMELESS, SEASONAL FARMERS, INCARERATED, REGUGEES)

Resource Org1: And can you describe the types of services you offer for homeless with diabetes?

Respondent: The same. The same thing. We have a very big - actually we have funding for - special funding for to addressing homeless population. We have a mobile unit that is in different place only for that - for homeless population and is working with different partners outside in the community – [omitted company name], [omitted company name]. Different partners in the community in which this mobile unit goes every week to that places and address a homeless population - not only in diabetes, with everything, substance use, mental health, everything that is related to them - to their health. And is part of something that we do as a clinic."

# Resource Org 1:

Interviewer: Can do describe the types of services you offer for seasonal farm workers with diabetes?

Respondent: Well, we don't have any program called in that way, the seasonal workers or especially targeting that population. No, we don't have nothing target especially that. But obviously we know that through our clinics we see these kinds of clients, especially in the clinics that we have in the colonias. Because remember we have a lot of clinics. We have a clinic in [omitted town name].

We have a clinic in [omitted town name], and we have a clinic with another partners inside of the partners, for example, in [omitted program name], we have a clinic there. And with that and through that partners in [omitted company name], we know that we see these kinds of population. And now we are in the moment to have another mobile unit, a big mobile unit.

# Resource Org 1:

Interviewer: Can you describe the types of services you offer for people that have recently left incarceration with diabetes?

Respondent: The same. We - remember as FQHC, we receive everybody and we don't neglect or we don't, we don't deny service to anyone.

# Resource Org 1:

Interviewer: And so in the last question is basically the same. It's about the set of services you offer for refugees with diabetes.

Respondent: Actually we, in talking about that, we do a very intentional work through our mobile units. We do a very intentional work with our - we, I don't have that in my mind already with the organization that we work already, but when, especially when we have all of these big issue here in [omitted city] with a lot of refugees and all these things, we work with a special organization. I don't remember the name of the organization to be honest with you, but we work with them, and we give - we bring the unit, the mobile unit for a long time, months to them every once or twice a week to really access that specific population. And we do that."

# Resource Org 2:

"Their whole medical history they [physician] send it to us, and once we have that and we get them scheduled, they meet either with the nurse or the dietician one-on-one where we collect medical information, their quality of life, you know. We have quality of life assessment, emotional assessment." .... "We do food history".... "we want to know if they have been to the hospital in the last six months or a year, how often, you know or when was their last eye exam done, or when have they seen a podiatrist? So, we really kind of get a baseline information ....."

Interviewer: Like food insecurity or malnourishment, housing instability or homelessness, financial barriers and poverty.

Respondent: And it's something that maybe, you know, we should be asking, but we don't. The other with poverty and financial barriers - .....Yeah, so we again, no, we – that's not something that we really ask."

### **COMORDIITIES:**

Resource Org 2: Interviewer: Are there other health conditions that your organization addresses, particularly those that, as I say, love the company of diabetes? And I'll just give you some, cancer.

Respondent: No. .... I mean we get referrals for a lot of other health conditions, you know, for weight loss or that's the most common one, but if they have any other – and we do a lot if somebody who is on dialysis or has kidney problems. So, we you know. We really work with them also.

#### LANGUAGE

Resource Org 1: "Spanish. Yes. The majority of our providers there are bilingual."

Resource Org 2: "Spanish and English.

Interviewer: And what about any other language that may -

Respondent: No.

# **BARRIERS/CHALLENGES**

Resource Org 1: "Lack of education. Lack of education is something that we see a lot that people, you know, is cultural, you know, the how the majority of our clients are Mexican. And it's still we see a lot of stigma around medical care. No talk about Mental health. And about diabetes, you know, in our Mexican culture we hear a lot this, well I'm suppose to die of something - all these cultural issues."

Worksites/Employers

Health Insurance Providers

### **ASSESS**

Health Insurance 1: "We have case managers that are related to medical conditions, we have behavioral health case managers, and disease management, which I am part of it - I'm a Disease Manager Program Specialist, so I deal with individuals with conditions such as diabetes, asthma, hypertension and others that identify within the community"

"September 2020, we'll become with the [00:03:58 unintelligible] individual, which is all those 18 and older that have a medical condition with a disability. So our Disease Management program absolutely will grow."

### **ASSESS**

Health Insurance 1:

Interviewer: Great - so ...covered the oral glucose tests, cholesterol,

triglycerides -

Respondent: Yes.

Interviewer: Weight circumference, metabolic syndrome indicators?

Respondent: Yes.

Interviewer: And how frequent?

Respondent: On the metabolic syndrome, I think it's depending on the doctors

and the provider.

Interviewer: But you'll cover it? Respondent: Oh yes. Yes, we do.

Interviewer: What about behavioral health screening?

Respondent: Yes, we do - we do also.

# DIABETES/EDUCATION COVERAGE

Health Insurance 1: "It's for those, they cover the medication for the [omitted health service name], they cover the diabetes medication, the test strips, the lab sticks, the glucometer - and they can also be case managers if it's needed.

Interviewer: And what about education?......

Respondent: Yeah - and those are covered through the [omitted hospital] - they have a diabetes management program too.

Interviewer: Okay. So when you send folks to [omitted organization], you cover

that?

Respondent: Only [omitted organization] for children - for children, it's a covered

benefit.

For adult population, we have a budget under Disease Management Health Services that we pay - they submit a claim, and that's how we pay."

# **PREGNANCY COVERAGE:**

Health Insurance 1: "Then [omitted insurance] also has the pregnant women, which is the [omitted health service name], and those are only for pregnant individuals, pregnant mommies - yeah, we cover also, I think, 100 percent."

#### LANGUAGE:

Health Insurance 1: "Okay, so as I do that, that's when I came across what are the, some of the parents, language is a barrier. They don't know how to communicate with these DME companies, specifically because they're out of town. So because of my experience, I have a good relationship with these DME companies, and I know where to go, okay? so I know where to call and when to call, and how assertive I can be when I call." "So that eased the process for them to get the pump, and I'm able to educate them on the different, for instance, resources available for diabetes, plus the [local resource]- how they can help, and how they can get educated"

# **ECONOMICS /BARRIERS**

Health Insurance 1: "Going back to the home visit, sometimes if I'm [00:08:49 unintelligible] members, they're living in poverty, so I have to evaluate whatever are the needs within the socioeconomic level, and then educating about diabetes type I, I offer a very - it's in an hour and a half interview, so I don't have enough time to go over many things that I would like to, but I go about nutrition, about eating habits, about changing certain mental ideas that the parents have."

# 5. Lifestyle Management (referral/use):

Interviews reveal that organizations that are use federal funds, who are federally funded, or organizations who serve clients with low income are more likely to refer to diabetes lifestyle prevention or management programs compared to providers or organizations that are not federally funded or service low income populations. Health care providers/systems are more likely to refer to in-house nutrition education than community resources as they are less aware of community resources.

- Efforts in place to address and aim to address referring people with diabetes to lifestyle programs
- Poverty, lack of education, social context are barriers for all populations to receive lifestyle management
  - Consensus more community resources and collaborations needed to address vast rural and city need

# **HEALTH SYSTEM**

Health Care Providers

### Clinician 2

Interviewer: So, do you use any self-management education and support program?

Respondent: "Not really. I mean we have printed data that we provide to the patient here in the office. And from certain companies they do provide also their other tools for the patient. Let's say if I prescribe a certain medication from a certain pharmaceutical company. They have some programs for teaching to the patient on how to use that insulin, for example. And in addition, they do have the program of that only focuses on the insulin, but also on dietary training as well.

Interviewer: Okay, perfect. So, besides that, do you use or recommend any type of physical activity or nutrition programs for diabetes prevention? Respondent: "Yes, definitely. I mean the exercise program that we normally recommend is aerobic exercise. Thirty minutes daily, at least five times out of the week. That comes from the ADA guidelines. Yes, ideally, we should put emphasis on the prediabetic person before becoming a diabetic in time. So, if we can get insurances just to pay for teaching to the prediabetic would be wonderful, although that is not the case."

# DIABETES LIFESTYLE MANAGMENT

QI 1: "Female Voice: It's a little bit more about portion control than anything. Portion control, exercise. We recommend that they do like 60 minutes of exercise five times a week. And we provide handouts from the nutrition care manual that will lead to weight - to lose weight. Some tips how to lose weight, like eat three meals a day. Don't skip a meal.

Like if you need a snack, eat healthy snacks. So we give them like advices of instead of like eating a donut, try to do like an apple or try to do - so in the one-to-one it's a little bit more - you'll find out what the patient needs. Like if the patient is drinking a lot of soda, then you can say, you know what, let's try to do this. Let's try to decrease the soda intake. Or you find out when you do the assessment what the problem is. And then once you know the problem of that patient, then you address it. Trying to give them tips, healthier tips for him to, or her to, lose weight.

Interviewer: So what I'm hearing is that it's very patient tailored depending on what you're hearing. But in terms of the goal for you when you provide that, what is the ultimate goal? Is it something that's coming from any particular other recommendations that you are really achieving a goal aiming for? Or is it - what's the dietitian's goal? Is it weight loss? Or is it - what are we looking for when you

give the nutrition advice? Or is it decreasing their A1c level, or what is the goal for the overweight/obese people? Female Voice: It's going to be based on the patient. Very, very specific for the patient, because some patients can have their A1c at seven and they're overweight. So of course you're going to focus on the overweight, not the A1c. So it's very specific for the patient. Interviewer: Okay. Female Voice: So when you get the patient is going to be -....Where the patient Respondent: I guess what you can put down is that when we do these things. it's on a one-to-one and it's - we do individualized meal planning for that individual. So when they come in [omitted name], you know, does an individual meal plan for that person. Because as you know with diabetes, you know it affects different - you know, somebody can eat watermelon and their blood sugar shoot up. Other people can just not - can eat it and doesn't have that big of an effect. So what she does is individualized meal planning for the individual. So the patient plays a major role of where she goes and what she does and what their treatment plan is. Patient centered, patient centered. Interviewer: Patient centered. Okay. I wrote it down. You mentioned a little bit of physical activity in the previous - answering previous question. Can you talk a little bit about that? What type of physical activity advice do you provide patients? Female Voice: So that's what is recommended by - you're going to find out the patient's - let's say they're in a wheelchair. Like you're not going to recommend a patient to walk 60 minutes, so you're going to have to find - like I also have handouts for sitting down exercises. So as long as they're moving more, so it's going to also be based on the patient. Female Voice: But you recommend - I recommend more if the patient that say they don't have - they're not in a wheelchair. They're able to walk. I recommend that they do 60 minutes of cardio more than weightlifting, because if they want to lose the weight, you don't want to give them weightlifting if they're already overweight. So I recommend more of the cardio first and then after they lose the weight, then we can go into the weights." **Quality Improvement** On knowing who does diabetes education/care: "I know we have the endocrinologist here. But I don't think that diabetes has to go that far. I think it can be done by primary care and I don't know don't know how much that everyone knows there is a certification that a provider can get that makes you a certified diabetic educator in some form. So I don't think that there is a big connection unfortunately. I really don't think so. COMMUNITY LINKAGES/RESOURCES **Diabetes Resource Organizations** • RESOURCES Resource Org 2:" ...we do support groups" **BARRIERS** Resource Org 2: "....I think the biggest challenge that I see and that we're trying to change is for people to not see their diabetes outside of them and that is all that it -

who they are...... going back to that previous question of the challenges and that

is something that has come up quite a bit in our support groups, right, this one. It's the struggles of living with diabetes, and it's the emotional struggle, and the stigma, and the shame, and the self-blame, all of that that comes with having diabetes."

### BARRIERS/CHALLEGES

Resource Org 1: I just I see that it's a lack of education on part of both the patients and the medical community. And you know, the medical community, the primary care physicians they are so overwhelmed with the number of patients that they have that diabetes is just one other disease that they have, that they treat. So, they, while they can maybe you know, treat patients with diabetes, but as the disease advances, they don't have those resources or capabilities. And so, a lot of patients don't get treated as aggressively as they should early on. Okay and a lot of times when those physicians or those patients have progressed in their disease to a point where the primary care physician can't do anymore and then they refer them out to an endocrinologist. 00:45:03 Sometimes, it's too late, okay and I just -I feel that yeah, and one of our biggest challenges that blood sugars would be very high, and they may be only on one medication where they should be already on insulin, and they're not, and the physicians. Some of the primary care physicians or nurse practitioners because they don't have that experience, they're reluctant to start, you know? So, it's such a disservice to our population, and there are only like three or four endocrinologists in this town.

Interviewer: Yes, yeah, for a community of 600 -

#### **GESTATIONAL DIABETES**

Resource Org 1: "Yes, pregnant women. Well we in terms of primary care, obviously we have the partnership with - I don't remember, with [omitted college name]? No, with [omitted hospital name] to have, we have midwives. How do you say? Well we have midwives a collaboration with [omitted hospital name]. I believe it is with [omitted hospital name] and them and to have midwives here. I believe one time a week, once a week. And they are in charge to see pregnant women and if they are - have diabetes - obviously I believe they refer to - they do a certain refer sys- they have a certain refer system to medical doctors. But also in terms of education, to be honest with you, is one of the thing that we lack. We don't have education for our diabetes self-management program is not doing almost anything in pregnant woman. We don't have that services, but we refer them."

Resource Org 2: Interviewer: What about pregnant women?

Respondent: So, I know our organization used to work, you know, do education for pregnant women, but we now, you know. Again, it's not having the visibility among the physicians that we offer that, and it's just — we also have our barriers in

among the physicians that we offer that, and it's just – we also have our barriers in some ways, that as much as we would like to help everyone, we just can't. And for us, when it comes to pregnant women is the insurance. [omit insurance] we not part of [omit insurance] reimbursement, and for some reason, we are not able to get on there. So, we cannot.

# Health Insurance Providers

# **NUTRITION THERAPY REFERRAL, BARRIER/CHALLENGE**

Health Insurance 1: "So that's within the insurance. With the providers, and if I came across any member like, for instance, for diabetes - one of my main things is for them to get them a nutritionist. It's very hard for them to believe that other people is going to tell you what to eat, but it's still, I call them and I say hey, [omitted name], I spoke with certain and certain lady, the issue is the eating habits. Have you provided those services? You know what? I sent her to here - I don't know if she went.

Okay, can you please produce another referral for such and such nutritionist, so I can help them get in the - I can facilitate the appointment? And he's - right away. It's sent your way, [omitted name]. So I receive it fast, and I will pick up the phone, get the mommy on the telephone, because sometimes providers don't like for you to do the intervention, so I like to do a lot of conference calls. And that's how I make those things happen. Then I let the mommy hang up the phone, and then I talk to the M.A. or whoever it is arranging the appointment, and I inform them, I'm going to be calling you back after the appointment.

So you don't have to disclose it, you need to just let me know if they went, or they did not went.

Interviewer: Do you feel that you are more likely than the provider to follow up

on referrals?

Respondent: Yes.

Interviewer: So you just mentioned that you had asked the doctor if she went

to the nutrition therapy, and they said they didn't know.

Respondent: They usually, because they have a lot of cases -

Interviewer: Okay, say they don't feel it's their role -

Respondent: Yeah. So what I do, I follow up."

# 6. Obesity Management

There is consensus that this is a challenging and difficult topic to address both because of a stigma perspective and lack of structured programs/treatment approaches.

- Viewed as dietary nutrition education and management need
- Physical activity programs needed
- Stigma associated with disease

# **HEALTH SYSTEM**

### Health Care Providers

### Clinician 3

Respondent: "So I always encourage all my patients to walk at least 25 minutes a day, a brisk walk. And I tell them, I mean, it's not going to take much of your time. It will relax you. You'll enjoy it, you'll thank me later. So I always encourage that. Diet obviously is the other one and some of them I do encourage to join the gym. Okay. So they can do weights as well as long as well as cardiovascular. I encourage them a lot to get a smartwatch or a Fitbit. And like I said, we do apps. There's a lot of apps out there now that can help with that. So when they are - they didn't know about these. I mean sometimes they're like, really? I didn't know that. And then they start getting kind of like engaged and they now this is cool and now I can see how many calories I'm going to eat."

### Clinician 3 Challenges

Respondent: "Pretty much, I mean just incompliance, so they just --

Interviewer: And why do you think that is?

Respondent: I don't know. I mean, I guess they're - some of them have tried in the past and they are not successful. So failure, I think it's probably the major one. But the other one is everything hurts. They're older. My knees, back. I cannot exercise because I have osteoarthritis. I have both knee replacement. My back has had five surgeries. I mean it's like - so I think in my case that's the one --....Physical disabilities, osteoarthritis. What to me it's self-explanatory. You can't move. Everything hurts. There's no way you're going to do exercise.

Interviewer: So what suggestions would you give other providers to ensure that those who are classified as overweight or obese receive a weight loss and maintenance treatment program?

Respondent: Then like I said, education. Educating the patients, spending the time. More time. I think that's a major one.

# Quality Improvement

#### OBESITY DIAGNOSIS

QI 1: "Yes. In the assessment we put the history of the patient medical history. And we put if they have like obesity or high cholesterol, we put them in the note of that assessment.

Interviewer: And so when you say that that's basically based on their BMI, body weight? Their BMI.

Female Voice: BMI, because we take - when we do the assessment, we do weight, height and then we calculate the BMI."

# **OBESITY DIAGNOSIS**

### WEIGHT LOSS MANAGEMENT

QI 1: Interviewer: Is there a process for providing weight loss or maintenance plan during -

"Female Voice: So that's going to be a medical nutrition therapy. So they're going to come with me with a dietitian to have - if they're wanting to lose weight, like after they completed the classes or before, we can schedule a separate

appointment with them. And that's going to be medical nutrition therapy. So that's totally a different -

Interviewer: So I'm just trying to understand the process. So let's say a patient's come and with the chart that you see that they are actually overweight or obese.

So in order for them to have that weight loss or maintenance plan, are they the one making the decisions? Or it's automatically given to them that, you know, you can go through this having a plan? How does that work - process work? Female Voice: So on the referral it has to say medical nutrition therapy because some of the referrals only say like diabetes education.....So it has to say medical nutrition therapy. If they have the option, we can let them know. ....The patient is the one that decides if he wants to come to the medical nutrition therapy. We let them know, you know what? In your referral you can

Female Voice: Do you want to do that? Can we make an appointment? If they say yes, so we can - if they're still interested in the referral it says for the diabetes education, they can ask their doctor and they can get a referral and they can come in a one to one with me.

Respondent: And so for them to come to our program or to see the medical the dietitian, or even to come into our program, they need to have a doctor's referral to our program."

### QI 2:

also see the dietitian.

Respondent: "I've still seen that a lot of providers are still putting the morbid obesity, and they're not looking at the specific BMIs and classifying the subtypes, unfortunately. And at least for me, I feel it's a very old term, morbid obesity. And that it's actually obesity Class 1, depending on the BMI. And unfortunately, I don't see a lot of that being documented that way.

Interviewer: How do they determine morbid obesity? Because they're not doing BMI?

Respondent: Exactly. So, actually they're looking at our BMI, because we do do that. But they just see a BMI that's going to be in the obesity range and they say it's morbid obesity encompassing...... And I don't agree with that. And so, when I see that, the first thing is I look at their BMI and then I look back and I change the diagnosis to exactly where they are in the BMI range and what class. Because that's where we're at now.

Respondent: ......I've actually seen that diagnosis and when I go in to see the patient, I look at the patient and I'm thinking I don't ... from my eye I'm thinking, no, that's not obesity. And then I look at their BMI and it doesn't reflect that either. So, unfortunately, it's very subjective.

Interviewer: Let's see. [extended pause] So, is there a process for providing weight loss or maintenance plans with your patients?

Respondent: I would probably say that we are lacking. I have not seen anything specific within the hospital setting for that. I mean, I know that we still initiate like a dietary consult. But for the most part, I'm going to be completely honest, it's pretty much almost like [00:23:15 overlooked] is the diagnosis that we have. But I have not seen anything specific to address it besides beyond just a nutritional diet - like an RD or registered dietician. But that's about it.

Interviewer: So, what do you think are some challenges or barriers to keep from doing the weight loss maintenance plan?

Respondent: I honestly think - and again I could be completely off - but I think that it's the big stigma. And that's just from me hearing other providers that they

Interviewer: Okay. Thank you. So, when you do classify someone as obese or overweight, you said you have them work with a certain diet with an RD. How does that patient leave the hospital with that plan? How do you ensure some level of continuity as they leave?

Respondent: Normally what we try and do is we try and get them set up with home health that also is specific for a dietician as well too to continue. It could also be for medication management, you know, vital sign checks, anything that is kind of like the standard for home health. But at least for me I always include if it's going home with home health, I put in a comment also for a registered dietician, as well too."

# COMMUNITY LINKAGES/RESOURCES

Diabetes Resource Organizations

Resource Org 1: "Well, in weight loss, the thing - the only program really that we have is that is part of the care coordination piece. Because obesity is one of the criteria that we - is one of the four criteria that we have, we receive - clients with this criteria. And the work that we do is again, we coach them. We guide them too. They choose their goals, short and long. And we give certain tools, education and resources, including physical activity, because here in [omitted company name] we that we have a certain physical activity. I'm a yoga instructor. I have yoga classes in the afternoon here. We have Zumba classes. We have Taekwondo and we provide to the clients with certain tools inside of our organization and outside with other providers and with all their - in the community. And we give education and mostly we do coaching with them in order that they are the people who really wants to see what kind of goals they want to achieve and how to do it."

Resource Org 2: "that we offer specifically a weight-loss program as a way to prevent diabetes. No, we don't. We don't have that."

7. Older Adults				
Care needed is different, more difficult, achievable with use of case managers				
HEALTH SYSTEM				
•	Health Care Providers			
•	Quality Improvement			
COMMUNITY LINK	AGES/RESOURCES			
•	Diabetes Resource Organizations			
	Older Pop Resource Org 1: "Well, again is older adults we do the care coordination. We do obviously the primary care services with the doctors. The doctors do the - they have the intervention work with diabetes and they refer to the care coordinators and we work with them directly one-to-one."			
•	Health Insurance			
	DIMENTIA COVERAGE Health Insurance 1: "Interviewer: And what about cognitive evaluations for dementia for your own patients?			
	Respondent: Yes, we do. We're going to start - okay, remember that [omitted insurance], it's starting in January 2020 with the Medicare populations, okay? And that's one of the - any patient that is, I think, it's 80 - don't quote me on that, I think it's 80 and over, and have a diagnosis of diabetes, a diagnosis of dementia or Alzheimer's, or any other chronic conditions will qualify for a program.			
	So this new Medicare population, we're going to focus a lot on behavioral and diabetes, which is awesome.			
	Interviewer: So what are some differences in the coverages? Are there differences in the coverages that you do for children versus the elderly?			
	Respondent: Yes.			
	Interviewer: What are those differences?			
	Respondent: So [omitted insurance] has right now two lines of - well, have several, but we have several lines of health services, but one is the [omitted health service name] - those are from zero to 21, and those are the ones that don't pay - nothing, okay.			
	Then we have the CHIP members, and the CHIP members are the ones that are based on the income, parents' income. And those are covered from zero to 18. And those pay co-pays - not a lot better they do pay co-pays. They have some that they pay on a yearly basis, and then they have to pay co-pays, okay, for whatever - for certain items. I will not be able to tell you, only DMEs specifically.			
	What is specifically being not covered, but I think I've seen documents, and they're always covered by, they cover a lot of stuff. Interviewer: Okay. Respondent: Then [omitted insurance] also has the pregnant women, which is the [omitted health service name], and those are only for pregnant individuals, pregnant mommies - yeah, we cover also, I think, 100 percent."			

### INTERGENERATIONAL LIVING-BARRIER/CHALLENGE

Health Insurance 1:

"Interviewer: Shared through intergenerational living?

Respondent: Yes.

Interviewer: With grandparents and then the children in different - Respondent: A lot of matriarchy. A lot of, a lot of- more matriarchy than patriarchy, here in [omitted city]. Okay, it's this different - it's very interesting, I love this

I mean, I'm like, okay - so that's when I have to do like my phone calls, and I'm calling, "what happened ma'am why couldn't you go?" "Ay, it's because my mom..."

"Let's see, what is happening with your mom, let's see, talk to me." Maybe she's not part of our health plan, but I do research, and I tell my co-workers, hey research. If you're finding out that this lady is having issues taking, for instance, [omitted name] to the appointment because the grandma is sick, I mean, find out what's going on, and see what is available within the community so we can knock down that barrier."

# ATTITUDES/BELIEFS BARRIER/CHALLENGE

Health Insurance 1: "Because it's a type of population that I deal the most - I think that becomes, again, from our roots, from our family from our ancestors, okay, because they do not believe in medication because they do not believe in doctors. Kids, their kids, their next generation, think the same.

Interviewer: So they're learning from their parents?

Respondent: Yes. They're learning from their parents. And because we are this borderland community, we still have those type of issue when you go to the houses, when you call them.

Interviewer: Why do you think they don't believe in doctors?

Respondent: I want to say that because, prior to this era, I think that our ancestors, our grandparents used to eat more healthy than we do right now. And it is not chemistry - now we eat a lot of processed food, and they used to have their own vegetable garden outside the house, the onion, the tomato, the soups. You know, they killed the chicken, and, and I think it's like, this is one comment that I heard one time that I went and did a home visit in [omitted town name]."

# 8. Children

- Better collaboration/communication across medical providers needed
- Better collaboration/communication with medical providers and schools needed
- Families living in poverty need more support from providers and schools
- Better assessment of # of children with type 1 and type 2

# COMMUNITY LINKAGES/RESOURCES

Diabetes Resource Organizations

### **CHILDREN**

Resource Org 1: "Well, we have our pediatric services. We have a pediatric doctor here and obviously they can provide treatment, medical treatment, primary care treatment. To be honest with you, especially with diabetic child, I don't know exactly what can be the process or the treatment or the way that they manage that. I'm not totally sure if they, the pediatric, they are able to manage their condition or if they refer to a specialist. I don't have that information with me, but the only that I can tell you is that we have a pediatric doctor here."

"And if we see clients or kids that the pediatrics, the doctors see that they need intervention and education, they send it to us as well. And something that we do is we work with parents, even with them. With the kids, we are part of the intervention obviously, but our main effort as well is to concentrate in parents."

# Resource Org 1:

Interviewer: "Let me ask about the one more time about children or youth and how do your services offer for children. So let me ask you this way. You mentioned that the children are maybe addressed through education for parents. Are this, is this education culturally sensitive?

Respondent: Sure. All our wellness approach is to be very conscious about cultural. We - one of the biggest component of the training that we give to our employees including everybody in the clinic is LGBT inclusivity, cultural competence, motivational interviewing, trauma informed care."

Resource Org 2: we don't offer – well, I shouldn't say that because we do have camp for kids with type 1 or type 2. And we host, also have different events, special events that we do for kids with type 1, bringing people together.

School District 1: "Okay; what happens when the nurse finds out that there is a student that is diagnosed with diabetes. Usually it's at the beginning of the year, or any time when a student comes in—what they will do is they bring the parent in, they get consent to talk to the teachers. And then the teachers will—some of the nurses will, individually, take that student to each teacher, especially the small ones, so that the teacher recognizes that face with that student. They also provide them—they also talk with them about confidentiality. Respondent 1: But, they provide them a folder that talks about what their plan of care is. So that the teachers understand that these are the signs they'll exhibit if they are hypoglycemic, hyperglycemic—same as done with the cafeteria staff.

Interviewer: Okay.

Respondent 1: So that they recognize the students, as well.

Interviewer: So the plan of care is shown to the teachers and to the cafeteria staff? Respondent 1: Yes, so they have an idea of who this child is, what they're supposed to be eating, what are some of the signs and symptoms of the hypoglycemia. That way, for example, if we have a Type I diabetic student and they get their insulin, they know by looking at that student that student doesn't wait at the end of the line. They get to walk in first.

Interviewer: Yes.

Respondent 1: And so they know, and there's not an issue with a student waiting at the end of the line and becoming hypoglycemic because they had to wait beyond 15-20 minutes in the line to get their lunch.

Interviewer: Yes.

Respondent 1: So that's why it's done."

School District 1: "They also—any PE teachers, if there's any student that has contact with whatever teacher they have—they are told these are the students, and they show them the particular student.

And all of that we explain to the parents, so they understand there's going to be certain people that will know that your child is diabetic. We're not going to announce it to the world, but there's certain people that need to know."

School District 1: "Interviewer: Thank you. What kind of accommodations do you provide for students with diabetes?

Respondent 1: We try to keep them as normal as possible. But, we do meet. If we need to we'll put them in a 504 Plan. And then we will hold a 504 meeting with the parents, one of the administrators, a teacher, and the school nurse—and we will come up with a plan for the safety of the student. Like, not letting the student when they're not feeling well go to the bathroom alone, because they might be hypoglycemic.

Letting them eat—that's when we discuss that they eat in the classroom, they can have a snack, like, when they're doing testing—state testing. They're allowed to leave to have a snack. They're allowed to check their blood sugar while they're being tested. So we discuss all of that and do the modifications that need to be done for that student. Especially if they're like newly diagnosed and they're going to be going to the physician a lot for follow-up, we make sure that—

That's why we have the teacher there, that they're given, maybe, extra time to make up their work; that they're not penalized for being absent if they're going to the physician quite a lot. And so that's what we discuss during the 504."

# MD BARRIER CHALLENGE

School district 2: "Better coordination between doctors and school. One child was screened for acanthosis. Family took child to doctor and doctor told parent to just make sure to wash his neck"

# Food Insecurity BARRIER CHALLENGE:

School District 2: Many of our schools are in low income areas {omitted neighborhood] that have many food deserts so access to healthy foods is a challenge"

# **SCHOOL DISTRICT 2**

# ASSESSMENTS, REFERRAL, CHALLENGES

Interviewer: So, how does [omitted school district name] keep track of students who are diagnosed with either Type 2, Type 1, or even some indicators of pre-diabetes or at risk for diabetes?

Respondent: "So, at the very front level, I guess you would say we do the screenings in pre-K, K, first, third, fifth. You can look that up with the acanthosis. In the heard of the matter, we're screening the kids when we do our other mandatory screenings, hearing, and vision and really identifying those kiddos that we think have an issue. We're going to do a height and weight. We're going to do a BMI on them. We're actually doing twice; bring them back in and do it a couple weeks later. The referral goes out to the parents straight away, though.

Saying, "We saw some markings. This is indicative of but not necessarily diabetes because it's hyperinsulinemia," so we let parents know. They get upset. You know what I mean? If we don't phrase that quite correctly. We are checking those indicators and we're normally noticing that those kids' BMIs are high. They already have some blood pressure issues. That kind of thing. So, it's a good opportunity for them to identify with the parents. We ask

parents come in and talk to us. Start with their endocrinologist. Maybe working with our pediatrician what we can do help them."

Interviewer: Okay. How receptive are parents to your screening?

Respondent: I will be honest. It's difficult. Parents really do – they get internalize it and become offended, sometimes. We're trying to tell them, "Look. This is part of [omitted city] culture. We understand this. We're trying to work to change some of the eating habits. Some of the exercise." That's within the school district going out in the community.

So, there is some resistance, absolutely. Some of their parents or grandparents have diabetes and they may not understand the full implication for the student. So, that's a lifestyle, a paradigm shift. Just because I was born and raised in[omitted city], I can tell you that is a culture that it's hard to work on it, sometimes. So, little pieces of information and really working with the school nurses on those kiddos has really made a big impact. Then, understanding we can make small changes and make a big difference before they become diabetic."

Interviewer: So, would you say, then – and correct me if I'm misinterpreting what you just said – that some of the challenges on parents being receptive is this mindset that they come in with about the disease?

Respondent: "Absolutely. Taking care of adult diabetic and pediatric diabetics and I know it's such a hard disease to manage, sometimes. To not eat everything you want, and the kids have parties. It's hard to – you know, Halloween and you know what I mean? I do think that if we can start early, we may solve or help solve the adult situation just because we're giving them education early on to understand what's going on.

#### **REFERRAL**

We have some physicians we refer to. Unfortunately, they tell them, "Wash your neck," or – so all we can do is get the information out there and hope that our local pediatricians are also working with us on that."

Interviewer: How do you get that information about what providers are telling families?

Respondent: "So, normally, we'll send the referral home. There is a section for the provider to fill out. Sometimes, they'll bring that back to us. Not always, but sometimes we'll say, "Okay. We're going to monitor BMI. Put student on calorie diet. Whatever information they might fill out at the bottom. Sometimes, they're telling them to inform the patient to wash neck. Some of that kind of situation."

Interviewer: So, you see it through what you get back --

Respondent: Back from the provider. The parents will sometimes say, "Hey, we checked them. They say they're fine," or they say, "We're going to try a new diet. We're on nutritional monitoring," or sometimes we'll get that information back from them."

Interviewer: Do you ever reach out to providers?

Respondent: "Occasionally, but it's a tricky situation. Normally, we let the parents do that. They're pretty hesitant with HIPAA to relay something back to us. So, we might reach out but normally we're just – whatever they've written on that referral, we're taking."

Interviewer: So, when you say it's a tricky situation, you mean because of HIPAA or -? Respondent: "Because of HIPAA. If we call in – I mean, we can clarify an order but when a nurse asks, "Well, what was your diagnosis? What was the outcome? Did you -?" they're real hesitant. I understand that, totally. We don't always get that open communication back and forth from the provider. We really depend on the parent to be the liaison between us. Then, all that information for acanthosis gets reported back to the state through PANAM. Their website is holding all of that information that we collect. So, that's a – probably a good resource, too, for you to look at statewide what's happening with that."

Interviewer:	Sort of assessment within the schools? Actually, that's a really good idea.

#### Health Insurance

### **COVERAGE**

Health Insurance 1: "We do a lot of service coordination, I think is our priority. Often identification of a member, for instance, that has diabetes type I - we're going to start with the population.

Usually they're very young kids, and if we receive it - usually we receive it by claims data, or by - I forgot to mention that we also get it by prior authorization. Prior authorizations are documents or authorizations that are processed for any DME supplies like, for instance, the insulin pump, the continuous glucose monitor. So when our nurses from prior auth identify those members, they refer it to Disease Management, and I am one of the persons that receive those, so unless - let's say for instance, I have a two-year old member with a request of an insulin pump, so please reach out to educate.

So what I do with the education is, I am not the specialist with the insulin pump, but I am the specialist within the condition. So what I do is, I contact the parent, and I present myself and what we do at the organization level, and then I ask them to tell me a little bit of history about the condition. And usually with diabetes, one type of description that got diagnosed, 500, 600 sugar levels - so then I offer myself to do a home visit so I can do an entire social, inside the house, I mean -

Interviewer: An assessment?

Respondent: An assessment, yeah, for the condition and for the home dynamics."

### **COVERAGE**

Health Insurance 1: "For the continuous glucose monitor, this is a new device - well, it's not new, but Medicaid's in the process to approve it starting in 2020.

We don't know if it's going to be in February or March, but we're very excited for these kids – it's awesome, okay? We had some cases, like we had an 8 month-old diagnosed with diabetes type I - little baby. And our company subsidized the price. So we do a lot of things, oh yeah. We have a wonderful team - not because I work there, right? One day I will leave, but I can still tell you that our CEO, he's good."

Yes, uh-huh. So that continuous glucose monitor is going to be a big one, but we're looking forward and ready to approve it. The majority of the services, whoever is contracted with [omitted insurance], we have a lot of providers, a lot of specialties, a lot of hospitals that take [omitted insurance], because it's a Medicaid plan.....Actually, all the hospitals are covered - we're covered.

### AIC COVERAGE:

Health Insurance 1:

Interviewer: Do you cover HbA1C tests?......

Respondent: Oh yes, the A1C.

Interviewer: How frequent?

Respondent: Every time that they go with the doctor, and the doctor decided to send it to get tested. So it's actually every six months.

# BEHAVIORAL SCREENING/SOCIAL ADJUSTMENT COVERAGE

Health Insurance 1: Interviewer: What about behavioral screenings for children and social adjustment or school performance?

Respondent: We do. Yes, we do cover that. And I initiated last year a collaboration with the school nurses....... I started that. It's very difficult. It's very difficult in if that you have to bond with the nurse, with the head nurse. I have a very good rapport with a [omitted school district] nurse, and with the nurse from [omitted school district]."

#### CHILD ASSESS

Health Insurance 1: "The majority of time when the kids get diagnosed with diabetes type I, parents have the stigma that it is their fault, okay? So I have to go over a little bit more emotional and behavior modification, modifying their behavior, their thinking and say hey, it's not your fault. This is something that they're born with it, and it's not because you drink, you didn't drink, you eat, you didn't eat.

I had a parent one time that told me, why did this happen to me, [omitted name]? We are vegetarian, and I am very consistent on the type of food intake my daughter has - she was four years old. I do not understand why she had diabetes type I. So she started crying, you know, and it's very, very sad, and I have to go tweak everything around and lower down my level and say hey - it's not your fault.

So we do a lot of motivational interviewing with these parents, and a majority of the parents, I can tell you 95 percent of the interviews that I have done, that in the assessment you have to lower down yourself and be one-to-one - like I'm your friend, I am your neighbor that understands you, and this is what, you know, show them a lot of coping mechanisms, okay, and it's very tense. So this is how, with our intervention comes within the house within the home visit.

We do have a social needs assessment within the appointment, and as you talk to these parents, and you build up rapport, these parents start disclosing to you more and more and more, and that's when you have to be very selective on how to help. I have an own thing that I say - you have to teach how to get the fish, not give them the fish all the time, you know? Because in the type of community that we live, we tend to feel that oh, I need to have. I need to have.

So I instruct this family, this is what you have to do, okay? Now your son is diagnosed with diabetes type I - what are the items that you need? What do you need? You need an insulin pump, you need to have a glucometer, in case his sugars go very low. You need to learn how to use a glucometer - you need to follow your doctor's instructions."

# CHILD BARRIERS/CHALLENGES

# (CHALLENGE-PARENTAL EDUCATION LEVEL)

Health Insurance 1: "One of the biggest things that I came across is parents, as soon as they feel comfortable with a condition, they begin with a behavior that would be noncompliant.

And that's when I kick in again. And my personality, the way that I communicate with these parents, I'm very strong, and I go to the point - what did I tell you to do? Oh, I forgot. Okay, let's repeat it again - because humans, we learn by repetition, especially in our community. I don't want our community, and I don't notice this because I just only be in this community, but this community needs to repeat it again and again, over and over. But I love to do it because that's the way that I want to help, and I tell the parents, okay - if you're going to need your only [00:12:38 unintelligible], what do you have to do?"

...... So those pods, because of Medicaid guidelines, they are only provided them on a six-months period. They cannot give it to them for one year, and it's not any health plan - it's just the regulations from the state, okay, from Medicaid, from HHSC...... So in order for them to get them on time, they need to request to the doctor a month prior to the ending of the pods. So I teach them how to count -

Interviewer: The prescription?

Respondent: "Yes, ok, so you have 90 pods, so you use 15 per month. When you're down to 75, you need to go to the doctor. And you know, usually [omitted name] and [omitted name], they're pretty good to schedule that appointment. But parents like to procrastinate, and that's when they become noncompliant, because they forget." ......... So

here we go - they fall under the noncompliant. So that's a big issue, okay? But I re-educate again, and I repeat myself and repeat myself until finally, they get it."

"Look, let me educate her in how to use an agenda - this is going to help you eliminate problems when you re-order your materials. So that's how I do it - I do a lot of re-education. And I know that some people say, you spoil them too much. No, I do not spoil - I'm avoiding that children go to the hospital, that parents get too stressed because it is not only the child. I mean, it's the siblings, you know, the kids, the husband, they go into that circle of trauma."

# TRANSPORTATION BARRIER/CHALLENGE

Health Insurance 1: "Transportation is a big one. Interviewer: And how do you deal with that?

Respondent: Well, as soon as identified, by providing anything that is available. And thank goodness - our health plan, I know that I'm talking about all the benefits from the health plan, but do you know what? It wouldn't be because of them, you know? These people are very vision, they have a lot of vision within the transportation setting, and we have the type of transportation within the Medicaid program, the one that you can arrange through the state, which is Medicaid Transportation Services - MTP is what it's called. But with them, you have to arrange your appointments like three days prior to your appointment. Transportation is very limited to the parent, because he or she only can take the member. And how about if that mother has a three month-old baby? So you see, MTP does not allow -

Interviewer: So the mother can't take the baby?

Respondent: **No.** Interviewer: Oh no.

Respondent: Okay? So when that happens, parents don't take their kids to the appointment, okay? Sometimes - like right now, that with this communication that I have with the doctors - they call me. Hey, [omitted name] - this is what's going on. Can you help him? How [omitted insurance] helped him? Well, we have a contract with taxis - so I arrange all the taxi transportation. We both are member services, and I just ask the mom to take a car seat - for instance, if he's a toddler or something like that.

That's how we're knocking down that barrier."

### INTERGENERATIONAL LIVING-BARRIER/CHALLENGE

Health Insurance 1: "So, you know, we try to knock down as many barriers, and - for the most, it has worked. Again, parents - I don't know, I just don't want to say it's because of the education level, but sometimes it's cultural. I think it has to do because of the way of culture here in [omitted city].

Interviewer: And what do you mean by the culture?

Respondent: Oh well, it's that look- uhm, I have done two home visits and, you know, if this family lives with a grandma, with an grandma, and they live with the grandpa, and the grandpa gets sick, they don't go to the appointments because they need to take care of the elderly individuals at the house. So that's when I tell them, I say okay - so, that's when you do the entire home assessment, and you find out that there's an elderly individual, well, you start looking in the community, whatever is available to this individual - if they have provider assistance, or they have home health assistance, what do they have?"

# MEDICAL DOCTOR-SCHOOL DISTRICT BARRIER/CHALLENGE

Health Insurance 1: "I try very hard, with [omitted school district], and I've sent emails to the school nurse director, and emails and calls, and - nada. And I had started that because I had - I'm going to tell you a story about three kids from the same family that had diabetes type I. So, without mentioning the name of the doctor, I got a call one day from this individual that was very upset.

He was stating that they were lying to him, and he was going to fire them from the practice. And I'm like, wow - but that's an easy way to go. Tell me a little bit more. Well, the father came in and screamed to me, and tell me this, and tell me that - okay. So, how do you think the father feels having three children with diabetes type I? You tell me. And he was very upset at me asking him that - how dare you ask me that.

How dare you want to fire those kids from your practice without referring to another endocrinologist? So I met with the parents, and I met with the kids, and I explained to them, because CPS was involved - CPS called me, the lady, and she's like, I couldn't find anything. These kids are well, they're taken care of very well - I don't get it. Interviewer: Were they empowered parents?

Respondent: Yes. Well - so while talking to the parents, they showed me the log, they showed me everything.

They was fine - it was just a matter of, he was tired because they're young kids, they don't listen, they go to school, they eat whatever they want. The school was not aware about - I mean, they were aware about the condition, but they never collaborate with the school cafeteria team to put some snacks together. So I did that intervention - I went and I met with [omitted school] nurse, and I spoke to him, and said, okay - tell me, what did you do?

Explain to me what is the process for these kids, what did they do, how did they come - well, he explained to me everything. The only missing part at the school level was the snack time. By the time that they had lunch, and the time that they go home, their sugars went up. They were going up because there was no snack in between. So I collaborated with the school nurse cafeteria people, and I asked them, can you provide - of course, all this was with the parents' consent.

Can you provide a snack, you know, see if they can get a little, I don't know, something like a little apple, or like a little cracker or something that they can, you know, so that way they don't go with those ups, and they get their glucose down. So we worked on that, that issue was fixed, their sugars were starting to get a little bit better. Then I went to [omitted school], because I'm working with the other one, and we collaborated very nicely - but the doctor

still fired them from the practice because he didn't want to deal with them anymore."

# SCHOOL BARRIER/CHALLENGE

Health Insurance 1:" I mean, you're not going to change the schools to modify their dietary protocol, it's just going to be hard. But at least you can educate - I do apologize, I think it's ringing - but I think you have to, what's it called? You have to educate the parent that they need to modify whatever - maybe to modify at the house dieting.

# PARENT BARRIER/CHALLNGE

Health Insurance 1: And so I did a home visit for this parent, and - she said that she works, she does not have no time to make food, and they go to McDonald's. Five years like that, every day, they eat McDonald's. So that's what I come across - but the school is a very important component on these children.

# DATA NEED ASSESSMENT BARRIER/CHALLENGE

Health Insurance 1: "The only problem is that, there's so many schools here in [omitted city]. But we have our focused areas where they need more assistance. Right now, what I'm doing is I'm reaching out to my Quality Team to find out how many diabetes type I we have in the schools, certain schools. I like to map.

Interviewer: Would you be able to get that information?

Respondent: Yes.

Interviewer: Oh, okay - wow. That's important information.

Respondent: Yes - what I'm trying to do is map. Tell me how many with this ICD code you have in [omitted zip code]. How many you have in [omitted zip code]? How many you have in such, so that way I can map these kids.

Interviewer: And who are you getting this from?

Respondent: I'm getting it from my internal Quality Improvement team.

Interviewer: Ah, so within the -

Respondent: Yeah, it's internal, yes. Right now, I'm doing it for the flu - I'm focusing on

certain areas.

Interviewer: And you can get that from the schools, or just from your members?

Respondent: From my membership. Interviewer: Member database?

Respondent: Yeah - we have a lot. So, the schools is a very important element for these populations.....If you want to, I mean - another thing, is that I come across ninos, from 12 to 14 that already have diabetes type II, okay? The day that I saw the first one, I was like, oh my God. So I called the mom – ma'am, what's going on?

Interviewer: Diagnosed?

Respondent: Diagnosed with diabetes type II. So the expectations of life for that children are very minimal, okay? We're talking about hypertension, and this kid was already obese, so hypertension, obesity and - so we need to collaborate with the schools."

Objective 2: Identify community/culture-centered strategies for the County of El Paso to best reach the recommended standards of care.

Suggestion and strategies on hypothetical if unlimited resources/Meeting standards of care/Additional suggestions

# MEDICAL PROVIDERS (PRIMARY/INTERNAL MEDICINE)

# Clinician 1:

Respondent: "We are in dire need of a lot of specialty care, mental health providers, and dietitians. The whole diabetes healthcare team is very limited and the way that that team is reimbursed also is there's a lack of proper reimbursement for the services that they provide."

### Clinician 2:

"If you can provide me with services that [omitted city] can help my patients, I'll really appreciate it, yup."

### Clinician 3:

Respondent: "I mean the issue with the medications is a big one that I think you guys should keep that in mind. As far as the research that there's not - these insurance do not want to pay for - I mean you have to have a really good insurance in order to get those medications cleared......Because I mean, and they rate us, here you're doing a bad job or when you want to treat them only with Metformin. And sulfonylureas we hardly use anymore. I mean, yeah, we want to put them on once a week injectable, GLP-1s, which are really good and they help decrease weight, decrease cardiovascular mortality - great drugs. And I see the results with my patients, but when I want to put them it has to - it's a big circus to get them covered and some patients, well no, they didn't cover it.....Okay, well then let's do this other one. So right there, I mean, I'm cheating my patient and I'm not giving him the best medication because the insurance is the one that is dictating how well he's doing. And that's the problem with insurance. I mean, you're worth more dead than alive because I mean if something happens, they'll sue you for millions of dollars." "But when you're alive and you want to be on a certain medication, they don't want to cover it. Or do you want a surgery? They said no, I mean it's not medically necessary."

Interviewer: What do you think would move insurance companies to change that?

Respondent: I think because they are worried about the money, so the less they spend the better.

We see how bad the insurance are and they're just playing trying to save money. I mean, whatever, right? They think that we're not doing our job right. Because they say, well, I mean if I have a patient that I, like I said I mean, I want - or if I want to order an imaging study, they say no. Why don't you just do this and this and then so I have to do that in order for you to get that and at the end it so be more, so you either have to start patients on Metformin, which is guide - according to the guidelines, and then once they don't tolerate it, then you have to go up, up, up. And sometimes they - even with insulin. I mean, there's so many long-acting insulins out there that give you like a 36-hour coverage but they're expensive."

Interviewer: Is there anything else you want to add to our conversation [about recommendations]?

Respondent: "More resources. And making that available to all the patient population. Maybe, I mean, like I - we talked about an incentive like for gyms and things like that. I mean, I just thought about that when we were just talking. I mean, honestly. ......I think there would be more customers than the regular gym. I mean, if you do that, I mean, you can get a lot of customers like that."

# **Clinician 3 On Community Resource Suggestions**

Respondent: "Kind of like a personal coaches or something that will do some type of teaching as far as diet - dietician. And it also involves lifestyle changes like exercise, weight loss. I mean those are the key things that most diabetics suffer from. I mean, patients that are overweight usually are patients that we see most of the time with uncontrolled diabetes or newly diagnosed diabetics. So lifestyle modification is the key thing. Interviewer: Okay. So you wish there were more of those?

Respondent: "More of those. I mean, probably, I don't know. I mean like gyms or something that they can have like attract these type of patients. I mean we see all these gyms for - but they would focus more on like a health care gym where they would work with these type of patients. I mean, and honestly it would be a good business model even for them. Because we have some big diabetics here in [omitted city]. I mean, I don't know. Maybe we should do that and put a gym in and maybe we'll have more patients - that will have more customers than the regular gyms."

# **QUALITY IMPROVEMENT HEALTH SYSTEMS**

# **Quality Improvement 1:**

"Respondent: You know, one of my goals and it's always been my goals is to have a one-stop shop. You know, I would love to have in [omitted location] something like the Diabetes Institute in San Antonio where people can just come and the doctors are there, the education is there, you know - everything that they need to know of having diabetes, it's there. So I would like to have like the Diabetes Institute here in our [omitted location]." "Well, you know what? I think one of the things that we look at when we go to the community and when we look at diabetes itself. I think other entities in the city need to have a process in which they would identify that a patient has diabetes. And go through the protocol and say they need an eye exam, they need a foot exam, you know, they need the A1c, and already have it in a process. But if they're managing the person with diabetes and a person gets - starts feeling sick, instead of that person waiting until it blows up and ends up in the emergency room, they should be able and feel comfortable to go back to their primary care doctor on a walk-in basis and be accommodated..... And that doesn't happen right now. It doesn't happen in other organizations. And it affects us because a lot of patients that we see are not necessarily come to our clinics. They go to other places. And so we see that as a big deficit, that a patient, you know, they recognize early enough that they're having problems. And before it can go into like a diabetic ketoacidosis and come back here in the hospital, they should be able to go to their primary care. And as a walk-in or get an appointment that day, because they don't want an appointment in three months, which they already had decay right now. You know, they're already, you know, so they need to be able to do that. And I think that's what they need to - I mean, we have so much diabetes in [omitted city name]. There's no shortness of it. And so I think that people need to realize that, that we need to take care of them and that would help everybody. It'd help the cost. It'd help the hospital. It'd help the patient, you know, and prevent the long-term complications of diabetes. And we don't have that right now."

"We need that organization to be able to provide the services that don't exist. And I think outside of the city, there's a big need.

Respondent: We have also a big need for advocacy for patients with diabetes. We don't have that in [omitted city name], and [omitted city name] being so far from here, we get the short end of it. We're so far from, you know - Texas is so big that [omitted city name] doesn't really get recognized as it should.

And the funding is not - should be coming more to us and it doesn't. For some reason legislators think that [omitted city name] is a border city. They don't realize that we can go and spit across the border. I shouldn't say that, but we're so close to the border and [omitted city name] is not a border city, but because they're so close to [omitted city name] that they can do legislation and lobby and get the funding that they need."

So I wanted to ask you a question. Does anyone have like a support group after let's say they complete the program or whatever? Is there something that they can go in the community that they can do, like a support group? Like patients with diabetes that they can - if in case they have a question, they can go to that support group or anything like that.

Respondent 1: The [omitted association name] has support groups, and the [omitted hospital name] have it for Type 1 for kids. They do.

Respondent 2: Because I'm thinking of doing a project then introducing a support group here in our program. That's what I was asking. If there was - because that's my idea, that sometimes patients, we don't call them after six months that they complete the classes.....

Respondent 2: Yes. So I was wondering, that's my plan to do like introduce a support group here like once a month we're going to get together and have a support group that people can come if they have questions. We - it's not going to be like a PowerPoint or anything like that, but to have a provider that can answer those questions."

### **Quality Improvement 2:**

"Respondent: I really think that they need - I know that they have some organizations that throw maybe something annual, you know, for the city to come out with diabetes but I think it's just like anything else, there has to be something that is more frequent. And it really will still - kind of what I touched on before is it comes down to communication and first learning about the patients, as well too, because we don't learn about what they want or what they need or what they would like. As you have said, their preferences. I don't think we're going to enact any change. And we have to learn what they like to be able to convey them differently on what diabetes is to educate them. I mean, one person may use analogies of ... you can talk to them, you know, with medical language and they may get it depending on their education. And other ones you may have to, you know, use analogies that go to what [omitted name] has, like cars. You know, something like that. It has to be individualized.

And the only way to do that is to get feedback from the community by having more days to be able to find out what the city needs. And then from there I think once we have all that information, then we'll know how to move forward to be able to tailor it to [omitted city].

Interviewer: Okay. So, learning about what the patients like?

Respondent: Yeah. Learning about the community really. And everyone is going to say, oh, well, it's the Hispanic community. So, I mean we love our food. We love our tacos. Yes, but there is still more that we need to know. There has to be. There is more behind that. How we can have everyone still enjoy their food but not overdo it. And you know, I mean there is just so much dynamics that we can still learn about. For sure."

Respondent: "Just actually I'm very happy that they're undertaking this and that you guys are doing this and that I'm a part of it, just to at least give some information because it's the one thing that I see still and I personally feel just from looking at it I don't know if we're making a dent at all. And it feels like we're not. And we need to start making a dent in our community in this way." ........So, we really need just to do it. And I am fully on board if you guys need any help whatsoever to do this because whether or not - I didn't actually mention this but I knew in my first year of being a [omitted title] that I loved diabetes because I loved to educate on it. I loved to get to the patient because I want to keep them from getting to the hospital. So, it's an actual passion for me. So, any help at all I'm here for sure.

# DIABETES RESOURCE ORGANIZATION REPRESENTATIVE

# Diabetes Resource Org 1:

"Respondent: Obviously I believe one of the biggest, at least for me talking about prevention, physical activity can be more, can be something helpful. Obviously, I believe I can't talk under the medical providers point of view. I can't talk about it, but I assuming that more accessibility to heart education, heart treatment, heart conditions, cancer, other resources, especially resources that actually we don't have here."

"I believe more integration between the - I believe that something that you are trying to do in doing this assessment, I believe is very good. Because I - it's beginning to really see what is outside. Who is who? Who's doing what? How are they doing it? How can you connect the pieces and make them adequate? So everyone can win, the client wins, and in reality we can combat this condition from a more bigger, more holistic approach. I feel that at times we all do our own little thing. Us, our little thing [omitted company name], everyone their own little thing. The doctors

over there their own little thing. In reality we are not being apart of a major thing. Connect. For example when I mentioned about the private doctors, those two that we have are in love with us. When we return, we only see their patient for the education, nothing else. We don't steal them for the care or anything, nothing more than the education. We pass them the information; we give them everything. When they return and they see the benefits, how they have gotten better, they say wow and they keep sending them. This would be nice to be made bigger. It would also be nice for [omitted clinic name] for example, [omitted clinic name] could also certify themselves and have a certified diabetes program. And that they can be another source, I don't know. I think what you are trying to do, I think it's very important because I think, in my opinion, what we need to do in [omitted name] is connect. All, all the services for people with diabetes. And we know in those cases that people with a condition of diabetes has much more behind than just that. Much more behind and we also know that the family has much more behind or can have. I think we need to do something more intentional and bigger because if not, I think we are going to be combating it and it's going to feel like we aren't doing much. I don't know, it's my own particular opinion. "Diabetes Resource Org 2:

"One of the things that – I mean it's something that we do, too. It is also offer cooking classes, and that's what I would see if we had unlimited resources is right now, the cooking classes are for anyone......for people with you know, diabetes and learning more plant-based cooking. That would help with weight loss and controlling blood sugars or ......and of course, offering more of emotional support, yes, more emotional support to people than what we are already doing, and also bringing in young people and I'm talking about not type 2s. I'm talking about type 1 young adults because they seem to be forgotten."

# **HEALTH INSURANCE REPRESENTATIVE**

# **Health Insurance 1:**

"What [omitted insurance] needs to do is reach out to our population with diabetes type II, type I - more staff. Respondent: We are, I think, that we are just, we lost an individual on June. They put a new one. Two people cannot make a lot of difference. I'm very passionate of what I do - I love what I do. I think it's just me, but I wish [omitted insurance] could have a department that could have many guys, we could fix, right? And, you know, help this population. It's a lot of needing, diabetes. Diabetes is increasing tremendously, and I think diabetes, a key element for having the management for diabetes is education. So if you can imagine that [omitted insurance] has 80,000 members within the [omitted county] and [omitted county] area, I'm just, top of my head, I can just tell you that it's like 30 percent of that population probably has diabetes, and it's only two people. There's never enough - wow. There's never enough.

Interviewer: What do you think could be done from a county level to increase the number?

Respondent: Put together a coalition.......Where you include health plans, where you include the schools, where you include senior citizens places, like those that they go and have, and they go and eat, the senior citizens. What else -

Interviewer: So getting everybody together -

Respondent: Yes, and to start coming out with thinking, brainstorming - how can you change behaviors?

Interviewer: So do you think - what would get people to the table?

Respondent: Food......Oh, always. I think that motivating them to attend. Talking to them - hey, come on, let's go, let's go – what we can do. .....Be creative - let's do this for the well-being of the community, for changing, for modifying, for giving a new idea in how to help, and how to make this happen.

Interviewer: And how would the coalition help your organization, or bring more staff?

Respondent: To my organization?

Interviewer: Yes.

Respondent: No, that is upper management.

Respondent: Okay - I don't know what they're planning to do within all this new product line that they're getting. And I had asked, hey - are you going to notice this management program? One of the - are we getting more nurses? Are we getting more people that can help? The answer was, yes - in the future, okay?" Let's do this, let's do that. One of my concerns is, within the school settings is, a boy bully to children that have this condition, okay? I have talked to my associate medical director, and I have told him, hey - why don't we put a conference together? We can involve the Sheriff's Department, do some stakeholder invitations, and we can educate our children to defend themselves against bullies.

Because I have had several parents telling me about their kids being bullied at school because they're wearing devices. For instance, I have one, [omitted name], his family's name - he's very chunky, and he was diagnosed with diabetes type I. He's in the process of losing weight, and they call him [omitted derogatory name], because he has the thing, the pump, the insulin pump, and he's chunky.

So for me, it's like, no - we are not going to treat people like that. No, no, no, no, no - so I was talking to them to see if we could put something together. Again, he goes to the school base whenever they are in that age. And for the adults, I guess continue motivating them. Regarding the organization, because hopefully, we'll get something. And I think will be, yes -

Interviewer: Some more staff -

Respondent: Yes, just for help with disease management programs, because it's growing....... because they had families before in focus groups with the members....Okay, what are their concerns, what are their needs, and they had taken into consideration and they had - you know what? We have a great leader - our CEO is a man of vision. [omitted name] - he's a great leader. I think that he does things in a realistic perspective, and not more in idealism. He's more realistic, and he does put things on the work. And I think that sometimes I ask, and he's like, oh my God - here you come again. So yeah - it has to do with your leadership team. Not everybody's always in agreement with you, because they think that you are nuts. But when they see what you do, that's when they start – [omitted name] is like, give me facts. Show me. I'll show him - say, look - this is what we can do.

Interviewer: Okay. The facts being what?

Respondent: For instance, I can present it to him with a case. Look, I have this case –blah, blah, blah, blah. I'm going to do this - can you allow me? When we started with the school collaborate, he was very hesitant. [omitted name], that's a huge thing to do. It's okay - we can start from scratch. Not everything is built from the top to the bottom - we can do little baby steps.

So he agreed with that, and you know, it's been okay. It's that we're being collaborating with the schools little by little.

Interviewer: So giving him case scenarios and data?

Respondent: Yeah - he will go for it.......But that's what I'm telling you -

Respondent: You know what is the difference between - I don't know about the other CEOs that [omitted name] something like three, but the difference between him and other individuals, and hopefully, is that, he's from the community, and he understands the community needs. That's a big difference......And he's supportive.

Interviewer: Is there any other last thing you want to share about your organization, or what you think about diabetes in [omitted city], or what - any suggestions for us....

Respondent: One of the things is that coalition. I would like to see if in the future, they can put something together. I think that if we gather - we don't need to be gathering important individuals in the community.

We just need to be very objective of who are we going to select that is really willing to work, that continuation of the work, okay? Because it's very easy to start something and never see it to the end. And I think that will be something about my organization, well, [omitted insurance] has grown so much, and I think that without growing, the

compromise is very high, the expectations are very high, and we're trying our best. I'm very happy to work for them, and hopefully, they're very happy with me in that right...

### **WORKSITES**

# Worksite 1:

Respondent: I think - as a [omitted worksite institution] I think we're doing a good job in trying to target it. There is a big need here in [omitted city name] and I think it's also because of our big Hispanic concentration that we have here.....So I think that any programming that is available is welcome and I hope it keeps on - all of those resources keep on growing, at a [omitted school system name] level, at [omitted county name] level, with all the organizations here.

#### Worksite 2:

Respondent:....And I'd like to add to this just as a whole, as a community, [omitted city] - I'm going to focus on [omitted city] - we have a large percentile of Hispanics. I think we're at like 82, 85 percent Hispanics. And one of the things that I see as a community is we do not have enough parks. We do not have enough places where there are walking paths. ..... Or perfect example, you know, we have a rec center in the back on the other side. But if you look from any of the community sites - they're just building a new facility of low-income housing but there's no path that you have running through here. It's all freeway. Well, why not? We have low-income people, right?.....

And we're trying to impact our community. Why aren't there more walking paths to stores, to businesses? Bike routes that get people out there outside their home. And then we can have also that conversation of a healthy lifestyle and being out in the open and fresh air, vitamin D. But also getting our body moving. And that's something that [omitted city]does not do very well. I believe that our representatives need to do a better job at impacting our community in that sense."....

Respondent:..... "I think one of the biggest mistakes as a community we've made is I know that this last mayor got a lot of funding for our ...... what is the right term for our less fortunate programs? You know, so the programs that are focused on providing our low-income families. Places, and I'm going to say a name like [omitted clinic name], or you know, the [omitted clinic name] that, you know, had the Saturday and offered to non-insured diabetic patients."

"I think our city needs to support more of those programs. We have a large population that's not insured, or underinsured. Texas didn't do a very good job at closing the gap. We had, you know, the Affordable Care Act come through. But [omitted city] needs to be able to step up and say, hey, if we don't have that sort of care that's coming from our State legislature then let's figure out a way as a community to be able to provide some of the resources to those local organizations that are giving those type of services."

Respondent: [low-income] ....."They're not being supported enough. We have so many - like [omitted clinic name], [omitted clinic name] - those type of places that we see that this last mayor - or, you know, I don't know how long ago - but there were resources that were cut to these locations that are offering that type of service to low income families."

Respondent: "I have. I have thought long and hard about how do we capture the intention of individuals? My biggest thing is, you know, I look at my own background. My grandmother had diabetes. She died from complications of diabetes. My mother now is going through diabetes. And so, because I'm educated and because I've heard this message over and over, when I started going to my annual exam, and getting to know my numbers and understanding, and I started consistently seeing that glucose - it was, you know, almost prediabetic. I immediately took action. Like you know, let's start reducing sugar intake. Let's remove sodas. Let's remove all of these factors that I know are contributing to that number. When I look at my own family, I think of how could I possibly impact those type of individuals? Where it's almost entrenched in our culture, you know, the [00:06:34 unintelligible], the [00:06:36 unintelligible], the rice. All of these things. And when I look at our community, .....[omitted population and location], I'm looking at the same thing, right? What are their factors? So, I think it has to become almost a conversation that as soon as, you know, maybe their children start getting into school that we start doing some sort of grassroots efforts to educate that maybe [00:07:05 unintelligible] is not the best thing to eat on a daily basis. You know, that sort of cultural entrenching."

Interviewer: So, it seems like just having more conversations to start? Respondent: "Absolutely. I think education is the number one factor. .....

# Worksite 3:

Respondent: Yeah, I think diabetes self-care, when I hear that term, it suggests to me - it's not necessarily what's suggested in the literature, but it suggests to me that you are responsible. You are solely responsible, right? So self-care means it's all my job.

And when you told me it's all my job and I've gotten other jobs, then it's 1/11th of my time and attention. Right? Because it's - I've got these ten. I had to provide food for the day. I've got to go shop. I've got to pay my bills. I've got to do all the - I got to go to work. And so it just becomes another job. And that's that whole concept of connection. Right? And it's shared responsibility. Because my lot in life, how I deal with my own diabetes affects not just me. It affects all these other people.

Well that's not just what I do affects them, but what they do affects me. You know, its quid pro quo in a more favorable sentence. Right? And so the idea is that it's not just about self-care. And if I don't do things right and I don't own complete responsibility, it's going to affect these other people. But they have an obligation because they're part of my life too.

Right? I'm part of theirs, but they're part of mine too. And so the suggestion that self-care means I'm totally responsible for it. I think that sends a wrong signal to people and it can be pretty daunting and it can be pretty overwhelming. And what you don't want to do is make the idea of improving your health and reducing, you know, you're likely to developing these long-term consequences from diabetes or trying to prevent diabetes in the first place.

You don't want to suggest that that's so overwhelming that it's paralyzing. I know I can't do it, therefore I'm not going to start. Right? You know, you know, kind of self-fulfilling negative thoughts about whether I'm capable of doing that. But if you frame it on the other hand, as part of your greater, you know - you're part of a greater system and they're part of you, then there's a shared responsibility versus.....versus an individual responsibility. And so you - and then it gives you license to reach out to others for help. Right? And how hard is that for people? It's very hard for people and culturally here it's hard, especially for men, Hispanic men, to reach out and say, I can't do this without you. I need you because I am incapable of doing this without you.

Well that's reaching out for help. That's acknowledging that you can't do it all on your own. And so if we frame this more as a collective thing than in individual cells -

Interviewer: Collective care for the entire community in a way.

Respondent: - then it gives people, it tells them that it's okay to seek the help of others on their personal condition. It gives them license to do that. If you frame it that way.

Respondent: If you constantly frame it as self-care, then it's all on me. Right? It's all on me.

Interviewer: I agree. Yeah. So if I - just to make it clear, so rather than calling it the self-care, but in other words, if someone can care for the diabetes either as a collective way, so the strategies would be very similar that as you have mentioned going out for a walk or physical activity, taking a collective approach where everyone actually can ask for help for creating that conditions.

Those are the strategies, would you say, would be in a workplace then?

Respondent: Yes.

Interviewer: Okay.

Respondent: Creating those conditions that make it okay. Make it okay that you acknowledge your difficulty in being able to control that yourself and allow you to reach out - allows you to reach out to others. And making it okay for them to respond in kind, to say, I will help you. And you know, it's not just all on you. I understand that I'm part of your life and it's -

Interviewer: More of a kind environment I guess. Right? So these are the last -

Respondent: So we won't call it quid pro quo because that has a very negative connotation in today's parlance.

Respondent: Especially today. So we'll call it something else. Mutual benefit. Right?

Interviewer: Mutual benefit. That's right. So this is the last question I have for you that is there anything else that I didn't ask you or you would like to add regarding the diabetes care in [omitted county name]?

Respondent: I think the, you know, be helpful if we had a better empirical handle on the prevalence, right? Because it's a non-reportable condition, we don't collect that information. Patient goes in a pre-diabetic, patient goes in their diagnosis diabetic, we don't know either way as a [omitted department name] department.

We rely on self-reported information through behavioral risk factor surveillance surveys. But really there isn't any other vehicle, maybe hospital data on admissions, MGMA data on reasons for visiting a doctor's office. But when you think in terms of how fragmented that is, you know, to get a handle on the prevalence of an illness that we know intuitively and we know based on, you know, what we see going into any store.

You know, that we have all these people who are likely to face, if it's uncontrolled - likely to face dire physical, emotional, financial consequences. So it's a big deal. The point is, it's a really big deal, but if you ask me how big is it as a deal, I can say well, you know, I can extrapolate from based on ethnicity and so on. And other studies that had been done elsewhere with Hispanics that we have 60,000 or 80,000 Type 2 diabetics 20 and older. But if you were to say, well, where'd you find that? I couldn't say, well, I got all of those reports locally. Right? I have to extrapolate. And I think that's a flaw, that we need a better way to empirically measure the burden of diabetes in our community. And I don't mean just the number of people who have been diagnosed and the estimates on the number who are yet to be diagnosed who are diabetic.

But you know, what's the economic burden? What's the social burden? What's, you know - so that we can frame this in a way that we can defensively argue that this is a major problem for our community. I don't know if that makes any sense.

Interviewer: Definitely. So let me make sure that I am understanding. So the two important points I think that you have really made, the first one stuck in my mind of course, that when we talk about the prevalence of diabetes, you mentioned you just go there and then get it from the literature and this. But is that really the real? How confident are we in the city of [omitted city name] that as you said, we go to the grocery store and see that this burden is coming on them, but you don't always see that alignment in the number. So to me that resonates very well because in a way that when you do the count of diabetes and is it reflective of very regional perspective?

And the second thing that you said, correct me if I'm not summarizing it correctly, because I don't want to put my word in your mouth, is that the impact, social impact, economic impact, real impact, regardless of if it's a diagnosed diabetes case or just the obesity or prediabetes, what are really the bigger impact? Are we getting the real picture? Is that correct?

Respondent: Yeah. Because I mean, we think in terms of - I mean there's a reason a vision is called a vision. It's because it's a picture.

That's why they call it a vision. I mean, you can use words to describe a vision, but the words are word picture words. They're words to describe a picture. And so when we think in terms of the vision of improving health status in our community, let's say for diabetes, then part of the vision is - part of that picture is being able to illustrate how big of a deal it is for your community.

And characterize that in different ways. Now, you know, there'd be some people......not convinced that we need to do a lot of more empirical stuff, right? Because we know that there's a burden and we know that it's costing our community in a variety of ways.

And the purpose of knowing, kind of the empirical side of this is really to inform policy and programs. Right? It's not just to say woe is me, or hey, we're not as bad as I thought we were. I mean, it's not just for its own value. The numbers serve another purpose.

Interviewer: Correct.

Respondent: Okay? Or they're not worth gathering. You know, I mean, you know, why do it? So they're serving another purpose......we might need it for applying for some grants and you know, some better empirical evidence for that purpose. But to inform policy and programs in the community, maybe not. So I'm more interested in the numbers as they relate to the effect of diabetes on a community.

You know, what does that mean for, you know, as far as it's advancing age, does it - what does it mean for those families? What does it mean for their economic wherewithal? What does it mean for, if there are two income, two people working in family, which is very common here - very common in order to make a livable wage for the family. If one person is caught in this cycle of circulatory problems and so on, the other person has to quit their job to care for that person, then you have no wage earners in the family.

And so if we have a population of uninsured people that for adults, you know, under the age of 65, it's about 31 percent here. 31 percent. You know it states that expanded Medicaid, that number is now 8 percent, 6 percent, but we didn't expand Medicaid, you know, in [omitted city name] - or in Texas, we didn't expand Medicaid.

Respondent: And so you still have 30 percent or so of the adult population without insurance. So if you have 30 percent without insurance and they're as likely, if not disproportionately more likely, to develop diabetes, then what does that mean for their care and for the progression of their disease?

Interviewer: Right.

Respondent: So those are, you know, like valid reasons to do more analysis beyond just prevalence is what I'm

saying.

### SCHOOL DISTRICTS

# **School District 1:**

"Respondent 1: I think we're starting to get more healthcare providers on this side? But for the longest time, we didn't. I mean, we had, like [omitted name] and a few—I know the [omitted care center name].

...... Respondent 1: And then the [omitted clinic]. But that was about it, for a while......But now we're starting to—I know [omitted college] has their facility over here that's tied with [omitted hospital]. And they have come to our schools and shown interest in partnering with us, and teaching some of our staff and things like that. So we're getting more.

And [omitted organization] was really good, because now we have somebody that the kids—that the parents know that they're there, and they can go. It's encouraged that you have an appointment, but if they can fir you in, they'll fit you in. So, that's really good. And sometimes, you know, you can't get in with your other physician, so you get in over here.

Respondent 3: And [omitted hospital], since they've opened, has become a big partner in education with the district. ....They are—we have a [omitted program]. Which is—I'm not sure we're still the only one in the region that has that. They work with us in letting our students experience what it is to work in the medical field and exposing them. There's so many fields, you know—not in the medical field. So they work with us very closely."

### **School District 2:**

"Respondent: I feel like if we just could bump up our community resources a little bit, because I think on a ground level, we're really trying to give them tools and education they need, but to put it into play out in the community, we just could always use more providers."

"I do think the younger generation's where we have to start and then really providing the parents and grandparents with those community resources."

Interviewer: So, more community resources?

Respondent: Absolutely."

Respondent: "Really, even for our Medicaid population, even for – even food stamps, even – I think there's a lot of opportunities to reach out to people when you're talking about education and what foods to buy. What foods we can provide on that program and I think all of those are good outreach efforts through the SNAP program. They can really be beneficial at some point, and then we've got to encourage people really on those resources to go see their providers. Get blood pressure checks. That kind of thing. It's so hard, sometimes, but I think they're more apt, sometimes, to do that in their community schools. They feel just more of a kindship with their school that's in there."

"Then, the follow up is what we really need help with on those providers on the outside..... ..... think if we had some clinics or we had some mobile units, or we had – especially in our [high school name area; [high school name] – I think it could make a bit impact. I mean, we even toured one time the area and there's hardly any grocery stores down in [omitted neighborhood] like with fresh fruit, vegetable. So, I mean, I do think that's a whole paradigm shift but they're not going to buy it if it's not there or it's too expensive. It's cost prohibitive. So, I do think some of that has to start just grassroots efforts in those neighborhoods."

"I think that's been the best ever with UTEP. Paso del Norte. With Texas Tech. we're really trying to form this partnership with everyone to – mostly for our kiddos but absolutely for the adults to get the resources they need."

"There's a coalition that we participate in with [omitted name] and it's a symposium that we try to do maybe every year or every other year or so. We're completely open to whatever happens that helps that population out. Education. Whatever we can do."

### **School District 3:**

"So I think what I would want to say is, and obviously knowing that, you know, my mom, you know, had diabetes, there's a lot of complications that could happen, that do take place that impact the health. And I would like, because I am so far out here in [rural area], I would like organizations to pay attention to the health of kids out here too. Because they have parents who maybe are struggling financially, don't have all the means around them, but it doesn't cost us to educate parents. Because all we do is advertise it. We have parent liaisons who are willing to bring our parents in. And so in terms of diabetes, I mean that's - I think we need to start getting the statistics of people who - you know, you're out there. And you can get all the statistics of people who - I mean we see it on the freeway, how many people have died due to accidents or shootings or whatever Let's get some of those diabetes data out there. Let's get that information so that we begin to inform our communities. I think there needs to be like I think I mentioned a campaign to advertise some of those statistics, some of that information."

"And I think there's ways that can be done, especially in the school system. You know, they're - all the districts have a parent liaison, and it's what are we doing to inform them? And it could be like a just another - I guess another extension of what we do is we're really taking care of the whole child and their families. You know, because if we have healthy parents, they're going to be making better choices for themselves health-wise and they're going to help us help their children make better health choices as well."

### **School District 4:**

Respondent 2: "I'd like to share that I think that because of our, I don't know, population in [omitted city], even if the services are available in this area, we grow up thinking I don't want to go to the doctor because I don't want to find out. If they do go to the doctor, sometimes they go across the border, and then that information is not brought back, so the information is not always available to the employer or to the even family sometimes".......
Interviewer: That's cultural hurdles that kind of -

Respondent 2: "Yes. Yes. Absolutely. I know that in lots of families, families think, "Well, I'm not going to go to the doctor. They're going to find something because our culture sometimes....."

Interviewer: You don't want to be found sick.

Respondent 2: Yes."