Addressing Social Determinants of Health in an Ambulatory Pediatric Diabetes Clinic; Examining Data by Race and Ethnicity

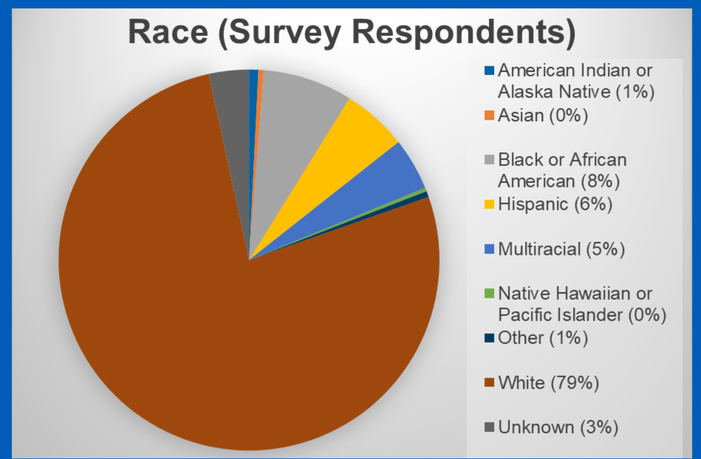
BACKGROUND

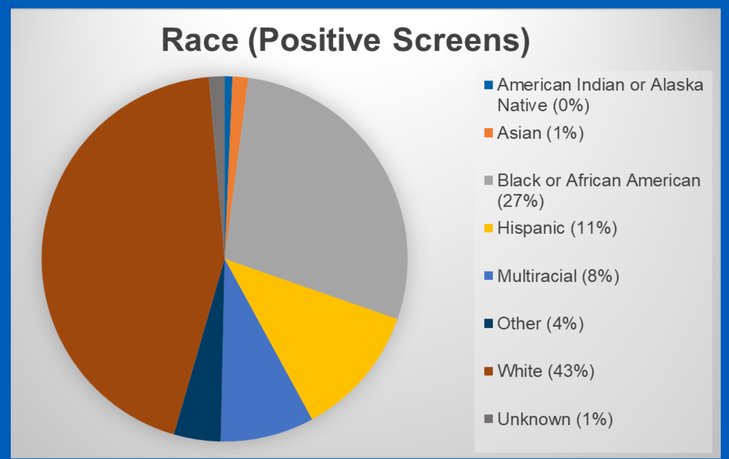
- The American Diabetes Association recommends screening for social determinants of health (SDOH) and addressing social barriers to health for all with diabetes
- Our aim was to implement a SDOH screening tool in a pediatric type 1 diabetes (T1D) clinic, then analyze the completion and positivity rates by race and ethnicity

METHODS

- In September 2021, we implemented a SDOH screening survey in clinic intake forms. We completed 10 PDSA cycles by July 1, 2022. Cycles tested delivering a resource list to those with positive screens, providing a link to a web-based platform with comprehensive resources, and providing personalized guidance to connect to vetted community resources. We also modified language to give families rationale for taking the survey and to articulate that guidance service was free.

	Test Cycle 1	Test Cycle 2	Test Cycle 3	Test Cycle 4	Test Cycle 5	Test Cycle 6	Test Cycle 7	Test Cycle 8	Test Cycle 9	Test Cycle 10
Cycle Dates	9/7/21 - 9/7/21	10/4/21 - 11/16/21	11/16/21 - 11/30/21	11/30/21 - 1/17/22	1/18/22 - 1/31/22	2/1/22 - 2/7/22	2/8/22 - 2/23/22	2/24/22 - 3/10/22	3/11/22 - 6/1/22	6/14/22 - 7/1/22
% of Surveys Completed	52%	62%	73%	49%	64%	71%	61%	66%	61%	65%
% Positive Screen	10%	5%	3%	6%	5%	2%	4%	2%	5%	5%
Describe the intent and structure of the test cycle	Survey added to intake forms. Positive screens were emailed a list of community resources.	Automated sending resource list to "+" families. Families were sent 10 day follow-up survey with options; 1) No additional help 2) Care Navigator (CN) walk through, or 3) Navigate resources on their own	Resource list automatically sent to "+"families upon completion of survey. Families followed up with by phone after 10 days with 3 options: 1) No additional help, 2) CN Walk Through, or 3) Navigate resources on own	"+" screened families received follow-up survey immediately upon completion of survey with 2 options: 1) No additional help, or 2) CN walk through	Families were not filling out f/u survey => added f/u survey questions to initial survey so families only complete one survey.	Re-introduced option to navigate resources on own in hopes of capturing families who do not want direct assistance finding resources, but still need assistance from a community resource.	Alerts set up in RedCap to notify Social Worker (SW) to respond to "+" screens. SW will use LiftUp KC through Cerner to capture referrals in (Electronic Health Record) EHR.	Minor language changes to survey give families context for questions. Alerts for f/u going to QI staff. SW will address if 1) utilities are shut off or 2) family is actively homeless. LiftUp KC will be used by staff in Cerner to connect family to resources.	Sentence added to instructions stating that a parent/guardian (if patient under 18) needs to complete survey.	REDCap notifications adjusted to notify SW at each location. QI staff respond to "+" screenings unless identified as SW follow up.
What changed from previous test cycle	N/A	Resource sheet sent out automatically, added 10-day follow up survey	QI staff followed up with positive screened families via phone instead of email	Eliminated resource sheet, f/u with families via email, eliminated option to navigate resources on their own	Eliminated survey, f/u questions moved to initial survey	Added third option on survey; "I would like to navigate resources on my own."	Whenever a CN is requested, alert is sent to SW who will follow up with patient/family (at appointment is possible, if not then a phone call)	Language changes include 1) explaining that assistance is FREE and 2) stating that when these needs are not met, it is hard to take care of your diabetes. Language was reviewed & approved by Health Literacy Committee.	Survey now states that parent or guardian MUST complete the survey (if patient is under 18 years old).	The additional question from cycle 6, allowing the three options on survey to navigate resources on their own, have a care navigator, or no resources has been readded. When SW is requested, alerts are sent based on location.
Results: Data and observations	Need more efficient way to follow up with families. Manually checking positive screens and emailing resource sheet not time efficient.	No 10 day follow up surveys were completed, so we were unable to determine if resource sheet was helpful.	All families 1) could not be reached, 2) declined additional help, or 3) opted to navigate resources on their own. Needed a way to determine if families were actually using LiftUpKC and if it was meeting their needs.	Very few families were filling out f/u survey, so we were unable to determine if their needs were being met or if they needed additional help. It was difficult to tell if families did not want extra help, or if they just did not see the f/u survey.	We are now able to tell if families truly want assistance from staff. All families flagged as needing assistance requested a CN to help them navigate community resources.	As of 2/28/22, all families who have been flagged since adding in the third option have selected "I would like assistance from a Care Navigator"	This cycle only resulted in 3 new referrals to SW. Due to capacity of SW, they've asked to only be sent an alert to f/u if family is homeless or indicates utilities have been shut off.	1 new positive screen, who requested a CN. Observed that some surveys were being completed by patients under 18.	Cycle resulted in 2 new positive screens, who requested a CN.	Positivity rate remained 5%. Location based SW alerts were not activated as no screens were positive due to homelessness or utilities shut off.
Action Adapt/Adopt/Abandon	Adapt	Adapt	Adapt	Adapt	Adopt	Adapt	Adapt	Adopt	Adopt	Adapt





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RESULTS

- The SDOH survey was completed by over 4,000 families with clinic appointments from September 1, 2021- July 1, 2022. Positivity rate varied from 2%-10%. Whites completed 78.9% of surveys and only made up 43.42% of positive screens. In contrast, Black individuals completed 7.83% of surveys, yet made accounted for 28.19% of positive screens. Hispanic/Latinos completed 9.17% of surveys while accounting for 14.77% of positive screens.

CONCLUSION

- Black and Hispanic patients are disproportionally affected by SDOH barriers. This disparity illustrates the need for screening and addressing barriers to SDOH. Screening for and addressing SDOH should drive the development of cost-effective, culturally customized programs to support diabetes care and promote health equity.

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