

Objective

Goal: To improve diabetes outcomes by identifying and addressing social needs.

Objectives:

- To screen for social determinants of health (SDOH) at routine visits
- To provide resources and social worker support for those who have material needs

Future: To determine if there is a resolution/reduction in social needs and improved diabetes outcomes after referring adults with identified needs to our clinic social worker.

Methods

- Population: Adults with T1D and T2D with visits from August 2022-April 2023.
- SDOH: 8 questions related to food, housing, finance, and transportation insecurities asked at routine medical visits by LPN.
- Positive screen: defined as a (+) response to any SDOH question.
- Adults with an identified need (+ screen): offered referral to clinic social worker.
- Demographic & clinical characteristics obtained from EMR.
- Differences in characteristics were assessed by type of diabetes (Fisher Exact Test or Chi Square)
- Predictors of Social Work referral acceptance in adults with (+) SDOH screen assessed using exploratory multivariable logistic regression.

Cohort Characteristics

	All (%) [n=4704]	Type 1 (%) [n=1659]	Type 2 (%) [n=3045]
Screened	83.2	86.4	81.4
Age (Years, Median)	58	41	63
Female	51.8	49.2	53.3
African American	13.1	5.7	17.4
White	79.2	90	73.0
Private Insurance	39.3	57.9	28.5
Medicaid Insurance	17.4	20.9	15.3
Medicare Insurance	42.0	19.7	54.9
CGM Use	53.5	83.6	36.1
Pump Use	21.0	53.6	2.2

Results

Table 3a - Type 1 Diabetes: Demographic and Clinical Characteristics by SDOH Status

Characteristics	Total Screened		SDOH +		SDOH -		p value
	n	%	n	%	n	%	
Total	1434		192	13.4%	1242	86.6%	
Age (Median, IQR) *	41	(28, 58)	40	(28, 53)	41	(29, 58)	0.16
Sex *							0.48
Male	729	50.8%	93	48.4%	636	51.2%	
Female	705	49.2%	99	51.6%	606	48.8%	
Race*							<0.0001
White	1291	90.0%	158	82.3%	1133	91.2%	
Black/Afr. American	82	5.7%	26	13.5%	56	4.5%	
Other	54	3.8%	6	3.1%	48	3.9%	
Unknown/Refused	7	0.5%	2	1.0%	5	0.4%	
Hispanic*							0.03
Yes	29	2.0%	8	4.2%	21	1.7%	
No	1391	97.0%	184	95.8%	1207	97.2%	
Unknown/Refused	14	1.0%	0	0.0%	14	1.1%	
CGM*							0.76
Yes	1199	83.6%	162	84.4%	1037	83.5%	
No	235	16.4%	30	15.6%	205	16.5%	
Insulin Pump*							<0.0001
Yes	768	53.6%	78	40.6%	690	55.6%	
No	666	46.4%	114	59.4%	552	44.4%	
Insurance							<0.0001
Private	830	57.9%	66	34.4%	764	61.5%	
Medicaid	299	20.9%	76	39.6%	223	18.0%	
Medicare	283	19.7%	46	24.0%	237	19.1%	
Other	22	1.5%	4	2.1%	18	1.4%	

Majority who screened positive had >1 material need

- 13.4% (n=192) T1D screened (+) [vs T2D 16.0% (n=396, p=0.03)]
- T1D with (+) screen, 56.2 % (n=108) had >1 material need [vs T2D 60.4 % (n=239)]

African Americans were more likely to screen positive than Whites

- T1D: 31.7% AA (n=26) vs. 12.2% White (n=158; p <.0001)*
- T2D: 24.2% AA (n=104) vs 13.6% White (n=246; p<.0001)*

Adults with public (Medicare/Medicaid) insurance were more likely to screen positive than those with private insurance

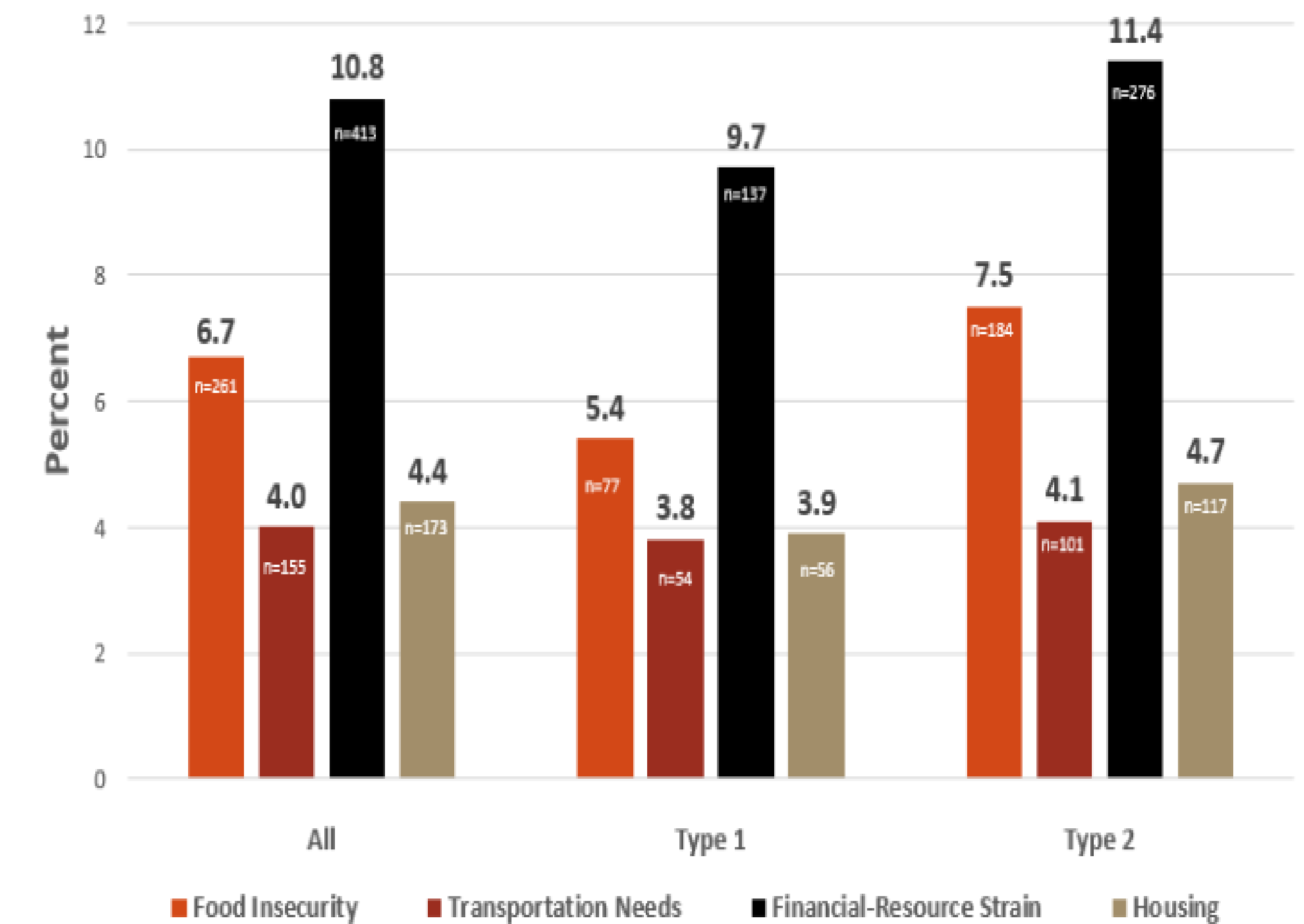
- T1D: 8.0% Private Insurance (n=66) vs.21.0% Public Insurance (n=122) screened SDOH (+)(p<.0001)**
- T2D : 10.7% Private Insurance (n=75) vs.18.2% Public Insurance (n=316) screened SDOH (+)(p<.0001)**

Adults not using a pump were more likely to screen positive than those using a pump

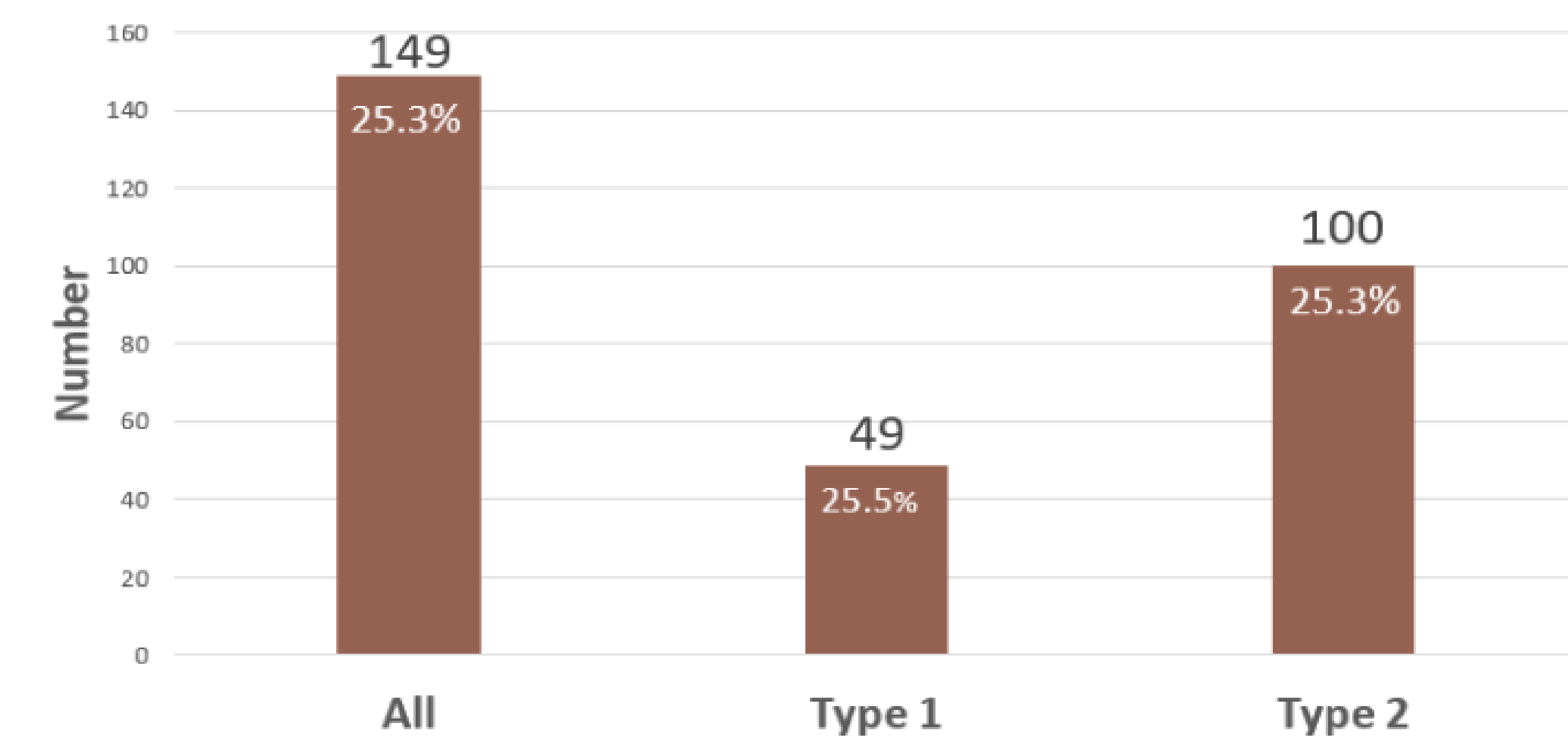
- T1D: 17.1 % vs. 10.2 % not using (n=114) vs using (n=78) pump therapy screened SDOH (+) (p<.0001)**
 - 77.6% who accepted a referral to SW had > 1 social need.
- FISHER EXACT TEST, ** CHI SQUARE

Outcome: Referral Accepted	OR	Lower 95% CL	Upper 95% CL	P-Value
Transportation	2.29	1.11	4.72	0.02
Housing	2.23	1.08	4.59	0.03
Insurance (Medicare, Medicaid or Other vs. Private)	3.04	1.29	7.16	0.01

Percent of Adults with Positive Screen by Social Need



Acceptance of Social Work Referral in Adults with (+) SDOH Screen



Conclusions

Material needs are common in adults with diabetes.
Next steps:

Improve screening (offer confidential screening) and reduce barriers to acceptance of social work referral

Improve accessibility of social worker at the time of the visit, acceptance of referrals and provision of needed resources

Determine if those who accepted social work referrals had a subsequent reduction in social needs and improvement in outcomes (A1c, CGM metrics, PHQ).