

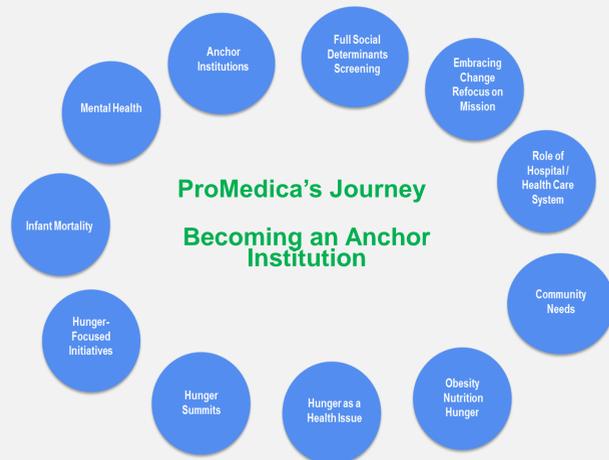
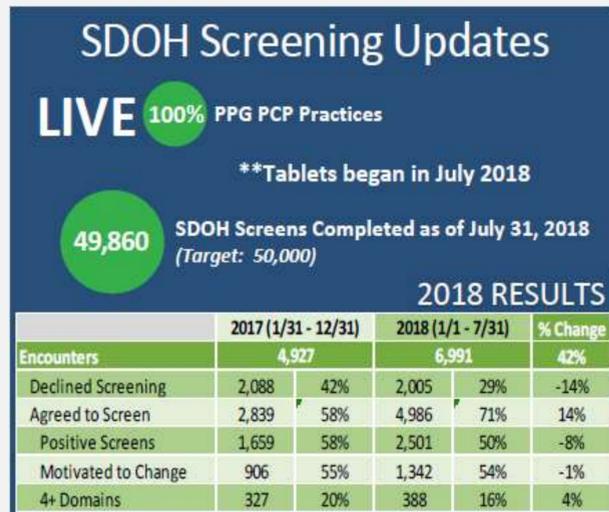
Addressing Food Insecurity at ProMedica

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INTRODUCTION

- Until July 2018, ProMedica, a not-for-profit healthcare organization, served 28 counties in two states (OH and MI); 13 hospitals; 340,000 Paramount Insurance members.
- In August 2018, ProMedica expanded to become an organization with 70,000 employees living and working in 30 states.
- ProMedica started to screen for food insecurity in 2014.
- In 2017, ProMedica expanded the screening to include 10 Social Determinants of Health (SDOH) domains: behavioral health, financial strain, food insecurity, education, housing, training and employment, transportation, childcare, social connection and intimate partner violence.



ProMedica Food Clinic - Actions Taken:

- To screen for food insecurity, patients are asked the following questions:
 - “We worried whether our food would run out before we got money to buy more. Was that often, sometimes or never true in the last 12 months?”
 - “The food that we bought just didn’t last and we didn’t have money to buy more. Was that often, sometimes or never true in the last 12 months?”
- The Hunger Vital Sign™ - Developed by Children’s HealthWatch to screen for households at risk of food insecurity.
- A ProMedica primary care provider writes a referral to the ProMedica Food Clinic for patients that are identified as food insecure; the referral provides key information about the patient’s nutrition needs.
- These patients can visit the clinic each month to pick up a supplemental supply of 2-3 days worth of healthy food for their family.
- April 2015-** ProMedica’s first food clinic location opened in Toledo, OH.
- January 2016-** ProMedica’s second food clinic location opened in Sylvania, OH.
- Offer healthy choices that promote healthy eating and balance at meals.
- Take patient diagnoses into account, ensuring that all items provided to the patient are in line with their medical needs.
- Provide nutrition handouts, healthy recipes, free nutrition counseling, community resource guide.

AIM

- To evaluate primary care food insecurity screening patterns and report the preliminary impact of the ProMedica Food Clinic on healthcare utilization and cost for Paramount Medicaid members with 12 months of continuous enrollment before and after the index date.
- Food screening dates: January 2015-December 2016.
- Use of healthcare services included both Primary Care Provider and Specialist.
- Data was collected from the electronic health records, provider billing database, claims database, and the Food Clinic proprietary database.

RESULTS

- Group 1:** Paramount members who screened positive and received an intervention by a visit to the Food Clinic.
- Group 2:** Paramount members who screened positive, but did not receive an intervention.
- Group 3:** Control group that consists of all other Paramount members in defined zip codes.

Group 1 85 members	12 months prior to first completed Food Clinic visit	12 months post to first completed Food Clinic visit	% Change
Admissions	15	17	13.3%
Avoidable admissions	2	1	-50%
Readmissions (30days)	2	2	0.0%
ER visits Amb	175	125	-28.6%
ER visits All	186	133	-28.5%
Healthcare services	452	469	3.8%
Scripts RX	3,053	3,398	11.3%
Total costs	\$643,735	\$611,432	-5.1%
Total costs PMPM	\$631	\$599	-5.1%

Group 2 188 members	12 months prior to most recent positive screen	12 months post to most recent positive screen	% Change
Admissions	31	41	32.3%
Avoidable admissions	3	3	0.0%
Readmissions (30days)	7	8	14.3%
ER visits Amb	289	272	-5.9%
ER visits All	310	298	-3.9%
Healthcare services	798	862	8.0%
Scripts RX	3,875	4,486	15.8%
Actual total costs	\$822,376	\$999,658	21.6%
Actual total costs PMPM	\$365	\$443	21.6%
Risk adjusted total cost	\$1,229,329	\$1,106,160	-10%
Risk adjusted total cost PMPM	\$545	\$490	-10%

RESULTS

Group 3 21,424 members	2016	2017	% Change
Admissions	2,158	2,218	2.8%
Avoidable admissions	223	233	4.5%
Readmissions (30days)	187	233	24.6%
ER visits Amb	23,015	21,936	-4.7%
ER visits All	24,448	23,424	-4.2%
Healthcare services	74,677	75,897	1.6%
Scripts RX	376,134	402,833	7.1%
Total costs	\$72,812,121	\$80,232,567	10.2%
Total costs PMPM	\$283	\$312	10.2%
Risk adjusted total cost	\$69,861,645	\$77,485,186	10.9%
Risk adjusted total cost PMPM	\$272	\$301	10.9%

- Group 1:**
 - Paramount members with 2 years of continuous membership, who accessed the Food Clinic in 2015-2017, experienced a 5% drop overall in their actual medical cost post-intervention.
 - One member of the sample suffered multiple comorbidities that led to gangrene, sepsis and amputation. If these costs were removed from the sample, the intervention group experienced a cost decrease of 25%. This member also accounted for 4 of the 17 post-intervention inpatient admissions.
- Group 2:**
 - Paramount members who screened positive for food insecurity and did not access the Food Clinic experienced an increase of 21.6% in their actual medical cost for the 12 months following the index date.
 - Admission is a driver to the cost increase. Based on semi-risk adjusted costs, this group experienced a decrease in costs of 10%.
 - This group did not experience savings as Group 1. Due to the swing in costs once they are risk adjusted, we concluded that either Group 2 had higher acuity in the second period than in the first period, or that acuity was captured in their visits. These members cost 42% more than the control group but 26% less than the intervention group.
- Group 3:**
 - This group experienced a 10% increase in costs overall, in both actual cost and risk adjusted cost.
 - It appears readmissions was a key driver in the cost increase.
 - This was the lowest cost group, but had a significant positive trend in costs, year over year.

CONCLUSIONS

- There seems to be a decrease in the total medical expense for Paramount members who visited the Food Clinic. This decrease was greater than the trend experienced by members who did not have an intervention. The control group actually experienced a cost increase year over year. The difference in trend between the intervention group (-25%) and the control group (10%) was statistically significant.
- Our ultimate goal is to effect change and address SDOH, beginning with hunger as a health issue in our community. It is our hope that the initiative will drive down healthcare costs and non-primary care utilization.