

FINAL PILOT RESULTS SUMMARY: Upper Peninsula Food As Medicine

The Upper Peninsula Food As Medicine (FAM) program is intended to address food insecurity and improve the health outcomes of low-income residents in the Upper Peninsula (U.P.) through:








PRODUCE PRESCRIPTIONS for low-income, food-insecure U.P. residents that have or are at risk of certain diet-related health conditions. Prescriptions can be redeemed at local markets.

NUTRITION EDUCATION offerings for those enrolled in the prescription program.

INFRASTRUCTURE GRANTS to local farmers to improve cold storage capacity in the U.P.






The program is led by the Upper Peninsula Commission for Area Progress and is run in close collaboration with clinical, food producer, farmers market, and human service partners. Collaboration among partners began in 2021. Participant enrollment began in May 2022 and is ongoing. Highlights of program results at the close of the two-year pilot are shared here.





COMPARED TO YEAR-1 PROGRAM TARGETS...

-  Fewer low-income residents of the U.P. were engaged in the program than planned.
-  A lower percentage of vouchers were redeemed than intended.
-  More partners have been reached and engaged in the program.
-  Farmers saw production and financial benefits through infrastructure support.
-  Fewer participants were enrolled in nutrition education than planned.
-  Satisfaction levels were high for each partner group: Farmers/producers, redemption partners, referral partners, and advisory board.
-  27% of year 1 enrollees were more food secure, but the ambitious target was 60%.

The FAM program successfully engaged with the intended audience of low-income residents with food insecurity and a diagnosis or risk of diet-related disease. At intake:

- The overwhelming majority of enrollees had low or very low food security (89%), with most (59%) having very low food security.
- Virtually all stated that they or someone in their household had a health condition such as diabetes or prediabetes, high blood pressure or hypertension, and heart disease or stroke. The most reported health condition was high blood pressure or hypertension (71%).
- Most enrollees received Medicaid (85% in year 1 and 80% in year 2) and SNAP benefits for their households (58% in year 1 and 65% in year 2).
- FAM participants mostly resided in higher-population counties, three-quarters were white women, and about half lived alone.

PROGRAM PARTICIPATION METRICS		TARGET	PERFORMANCE
	Number of people enrolled	600 [one-third in each region]	533 [nearly 70% were from the central region]
	Percentage of 2022 vouchers redeemed	70%	67%
	Percentage of 2023 vouchers redeemed	70%	63%
	Percentage of participants that attend nutrition education	35%	30% ¹
	Percentage of nutrition education attendees that earn a certificate	65%	19% ²







INFRASTRUCTURE METRICS		TARGET	PERFORMANCE
	Number of farms that received funding for cold storage	12	13
	Producers report valuing the infrastructure support	90%	100%
	All farms report increased sales (range 5% to 20%) attributable to the initiative	5% minimum	7% to 30%
	Supplying farms report satisfaction with the new market for sales	90%	100%

Implementation of the pilot cold storage mini-grant program was highly successful.

- Farmers gave high marks to the program application process, communications, and the technical assistance. The program had positive impacts on their finances, operations, and quality of life. Feedback from farmers was overwhelmingly positive about their experience and outcomes, and all targets for farmer outcomes were met.

¹ Eight percent (8%) in year 1 and 36% in year 2.

² One hundred percent (100%) in year 1 and 14% in year 2.

COLLABORATION METRICS		TARGET	PERFORMANCE
	Number of MOUs with health care providers	3 total; 1 per region	16 MOUs total, all regions engaged, with referrals from 40+ locations
	Number of participating farmers markets	5	15
	Number of grocery stores in year 2	1	0
	Percentage of referral (i.e., health care) partner satisfaction	80%	85%
	Percentage of farmer satisfaction	80%	100%
	Percentage of advisory group satisfaction	80%	80%
	Percentage of redemption partner (i.e., farmers market) satisfaction	80%	80%

Advisory workgroup inputs were positive.

- Eight of 12 advisory group members plan to continue participation in the FAM on a quarterly basis in the next year. Eleven of 12 are confident that the leadership of the U.P. FAM will be sustained beyond the grant period.

PARTICIPANT OUTCOME METRICS

Food access and security



27% of year 1 participants were more food secure, which was short of the 60% goal.



85% of participants said the FAM program helped increase their access to healthy food.

Health behaviors



Participants that spent most of their vouchers (>\$255 in year 1) significantly increased their vegetable consumption.



Participants that spent at least a moderate amount of their vouchers (>\$100) saw a significant increase in the variety of vegetables consumed.



92% of year 1 participants used all the fruits and vegetables from the program.



66% of participants were satisfied with the amount of produce from the program.

Health outcomes

- No improvements were identified in short-term health outcomes (BMI, HbA1c, blood pressure).

Caveats for interpreting health behaviors and health and food security outcomes. There were significant differences in the characteristics of the people that took the post test compared to those that did not respond to the post test. There was a relatively small sample size of enrollees that responded to the post test and an even smaller sample size of enrollees where biometrics were available for both intake and then again 6 to 9 months after intake. The statistical tests undertaken are designed for small sample sizes, yet there is still a risk that any significant result or lack thereof are due to random chance rather than actual change.

THE FUTURE

The program is well-positioned to continue implementing the program, due to strong leadership, relevant advisory body engagement, and successful cross-sector partnerships. The growth of partnerships and geographic reach over the past two years has been impressive, and further expansion is feasible and encouraged. Key opportunities lie in expanding enrollment in the less populated 11 counties, and in growing partnerships that can improve year-round food access such as grocery stores. New providers of nutrition education should be secured to increase the program's value to participants.

To realize the full impact of the program, implementers should focus on how to maximize the redemption of vouchers received by participants. Improvements in the variety and amount of vegetables consumed were related to the amount of redemption. However, only about half of enrollees redeemed a high-dollar amount of vouchers in year 1.

The mini-grant cold infrastructure model is viable for continuation and replication. Minor adaptations are suggested for continuation, such as sharing with farmers more information on the voucher program and the distribution of funds, as well as a vetted list of contractors. Expanding the model to include a peer-learning component could be of value to the farmers. This successful model could be adapted to support other infrastructure improvements that will help farmers with efficiency of their operations and provide more fresh, healthy, local produce to Upper Peninsula residents. Based on farmer feedback, opportunities include funding for improved wash-pack areas, renewable energy, greenhouse or other season extension, propagation space, expanding the voucher program to include more farmers markets, outsourcing of building and infrastructure improvements, increased staffing, shared equipment programs, irrigation and fencing, composting, and tractors.