


Food security services

▶ Intervention in brief

<p>High risk:</p>	<p>Food security services include a range of approaches (e.g., food pharmacies, SNAP¹ enrollment assistance, nutrition/cooking classes) to improve access to healthy and affordable food for patients and communities. The goal is to reduce patient stigma, support behavioral change, improve health outcomes, and drive community-wide food security.</p>
<p>Strength of evidence</p>	<p> Although there is significant research on the negative impacts of food insecurity, there are few studies on the impacts of food security interventions. However, when studied, results consistently indicate improved quality and clinical outcomes.</p> <p>Low</p>
<p>Impact</p>	<ul style="list-style-type: none"> • Decreased cost: 15% reduced total costs; \$484-1,221 reduced costs per Medicare and/or Medicaid beneficiary • Decreased utilization: 53% reduced readmission rates • Improved quality, clinical outcomes: 0.06-0.10 QALYs² saved per Medicare and/or Medicaid beneficiary; 0.02-0.10 avoided cardiovascular disease events; 13.3 percentage point increased likelihood of receiving a full set of well-infant visits by 14 months; 6.2 percentage point increased likelihood of receiving a lead test; 6.5 percentage point increased likelihood of receiving a developmental screen; 41.0-66.6 percentage point increased frequency of eating vegetables; 28.1 percentage point decreased frequency of worrying about running out of food due to lack of money; unchanged weight-for-length at 9 months; unchanged frequency of skipping meals due to lack of money • Increased access: 11.6 percentage point increased referrals to social work; 9.1 percentage point increased referrals to a medical-legal partnership program • Improved stakeholder satisfaction: Not demonstrated
<p>How to succeed</p>	<p>To build an effective food security program:</p> <ul style="list-style-type: none"> • Educate patients on the link between nutrition and health to eliminate the stigma of receiving food assistance and promote food literacy to encourage healthy habits • Increase short- and long-term access to healthy food (including fruits, vegetables, whole grains, nuts, seeds, and seafood) by implementing routine screening to capture all patients, addressing immediate hunger needs, and connecting eligible patients to governmental and community benefits <p>To learn more about developing an evidence-based approach, check out our Provider-Led Strategies to Address Food Insecurity whitepaper here.</p>

1) Supplemental Nutrition Assistance Program.
2) Quality-Adjusted Life Years.

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▶ Demonstrated impact

Literature review summary

Title: Cost-Effectiveness of Financial Incentives for Improving Diet and Health through Medicare and Medicaid: A Microsimulation Study

Publication: PLOS Medicine

Date: 2019

Type: Simulation study

Study population: 82 million adults (56.2% female, 74.5% white) on Medicare and/or Medicaid between 35-80 years old (mean age of 68.1)

Major findings: The microsimulation model assessed two policy scenarios: a 30% subsidy on fruits and vegetables (the F&V incentive) and a 30% subsidy on broader health foods including fruits, vegetable, whole grains, nuts/seeds, seafood, and plant oils (the Healthy Food incentive). Impacts were simulated over the lifetime of current beneficiaries.

- The F&V incentive:
 - Saved formal health care costs (\$39.7 billion or \$484/beneficiary)
 - Saved QALYs (4.64 million or 0.06/beneficiary)
 - Avoided cardiovascular disease events (1.93 million or 0.02/beneficiary)
- The Healthy Food incentive:
 - Saved formal health care costs (\$100.2 billion or \$1,221/beneficiary)
 - Saved QALYs (8.4 million or 0.10/beneficiary)
 - Avoided cardiovascular disease events (3.28 million or 0.04/beneficiary)
 - Avoided diabetes cases (0.12 million or 0.001/beneficiary)

Both incentives became cost-effective from a health care perspective at five years (\$18,184/QALY and \$13,194/QALY, respectively).

Source: Full article [here](#).

Title: How Hurley Medical Center is Bringing Food Security to Flint, Michigan

Publication: Advisory Board

Date: 2018

Type: Case study

Study population: 3,300 households receiving care in ProMedica clinics and hospitals who were screened across the continuum using the two-question Hunger Vital Sign

Major findings: Connecting in-need patients with immediate condition-specific food in the inpatient setting and access to a food clinic long term (one visit per month for six months before requiring a new referral) resulted in:

- Reduced health care costs (15%)
- Reduced readmission rates (53%)

Source: Full article [here](#).

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Title: Forging a Pediatric Primary Care–Community Partnership to Support Food-Insecure Families

Publication: Pediatrics

Date: 2014

Type: Cohort study

Study population: 1,042 families with infants (90% on Medicaid, average age of 5.8 months) receiving care at a pediatric primary care center affiliated with Cincinnati Children’s Hospital Medical Center over two years

Major findings: The Keeping Infants Nourished and Developing (KIND) program, including the distribution of formula and educational brochures, resulted in:

- Increased likelihood of receiving a full set of well-infant visits by 14 months (42.0% vs. 28.7%), a lead test (81.2% vs. 75.0%), and a developmental screen (26.6% vs. 20.1%)
- Increased referrals to social work (29.2% vs. 17.6%) and the medical-legal partnership program (14.8% vs. 5.7%)
- Unchanged weight-for-length at 9 months

Source: Full article [here](#).

Title: Impact of a Community Gardening Project on Vegetable Intake, Food Security and Family Relationships: A Community-Based Participatory Research Study

Publication: Journal of Community Health

Date: 2012

Type: Case study

Study population: 42 Hispanic farmworker families (average age of 44) in the Columbia River Gorge community in Oregon

Major findings: The community and academic partnership supported participants in starting a home garden, including resources, education, and community health worker support, which resulted in:

- Increased frequency of adults eating vegetables “several times a day” (from 18.2% to 84.8%)
- Increased frequency of children eating vegetables “several times a day” (from 24.0% to 65.0%)
- Decreased frequency of “sometimes” or “frequently” worrying about running out of food due to lack of money (from 31.2% to 3.1%)
- Unchanged frequency of skipping meals due to lack of money

Source: Full article [here](#).

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Appendix

- Lee Y, et al, “Cost-Effectiveness of Financial Incentives for Improving Diet and Health through Medicare and Medicaid: A Microsimulation Study,” *PLOS Medicine*, 16, no. 3 (2019), <https://journals.plos.org/plosmedicine/article/file?id=10.1371/journal.pmed.1002761&type=printable>.
- “How Hurley Medical Center is Bringing Food Security to Flint, Michigan,” Population Health Advisor, Advisory Board, <https://www.advisory.com/research/population-health-advisor/events/webconferences/2018/how-hurley-medical-center-is-bringing-food-security-to-flint-michigan>.
- Beck A, et al., “Forging a Pediatric Primary Care–Community Partnership to Support Food-Insecure Families,” *Pediatrics*, 134, no. 2 (2014), <https://pediatrics.aappublications.org/content/134/2/e564.short>.
- Carney P, et al., “Impact of a Community Gardening Project on Vegetable Intake, Food Security and Family Relationships: A Community-based Participatory Research Study,” *Journal of Community Health*, 37, no. 4 (2013), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3661291/>.