Food As Health: Addressing Food Insecurity in a Clinical Setting

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PROGRAM DESCRIPTION

The Food As Health (FAH) program is an evidence based, integrated hospital approach addressing food insecurity (FI) launched at LIJ Valley Stream (LIJVS) hospital on July 9, 2018. The program was implemented through partnerships with: hospital inpatient and outpatient units; community based organizations and food partners with the intent of decreasing food insecurity, hospital readmission rates, avoidable ED visits and increasing patient health and engagement. The FAH program addresses food insecurity through three service options (Figure 1):

1) A hospital based food resource center, staffed by an Island Harvest, Inc. RD and supported by food vendors Baldor and US Foods,
2) A mobile food pantry operated by Long Island Cares, Inc., and
3) Medically tailored home delivered meals program from God's Love We Deliver.

Two LIJVS sites were identified to participate in the FAH pilot based on the volume of patients with identified nutrition related secondary diagnoses, a medical surgical inpatient unit and the outpatient Wound Clinic. Patients are screened for FI using the Children's HealthWatch™ Hunger Vital Sign survey. Patients positive for FI and eligible for the FAH program are referred to the appropriate service based on their individual needs. Each service provides emergency food supply, nutrition education, Supplement Nutritional Assistance Program (SNAP) enrollment and social support through community resource navigation. Patients are eligible to receive a minimum of two additional monthly follow-up "Food Authorizations" to access the hospital based site and receive telephonic follow up from the dietitian for food related support, community resource support and reinforcement of the importance of healthy eating and "Food as Medicine". The program supports the Institute for Healthcare Improvement Triple Aim, and the Research, Education and Economics and the USDA goals of addressing hunger and food insecurity by establishing a food program specifically for high risk populations working with clinical care and community support.

BACKGROUND

In 2016, nearly 400,000 individuals in Nassau and Queens County identified as food insecure, with the number in Queens county alone reported at 298,250, larger than the population of Buffalo, NY. The connection between social determinants and health outcomes (Figure 2) is evident when looking at nutrition related comorbid conditions, which benefit from a Food As Health approach to care. LIJVS hospital provides services to New York communities in Nassau and Queens Counties. The LIJVS service area is racially and ethnically diverse. Over 51% of LIJVS inpatients were aged 65 +. The hospital has seen the greatest admissions increase in the ≥ 65 population, at 11.3%, compared to increase for total admissions at 7.9%. The communities within the LIJVS service area experience income rates well below the state average and poverty rates over the state average.

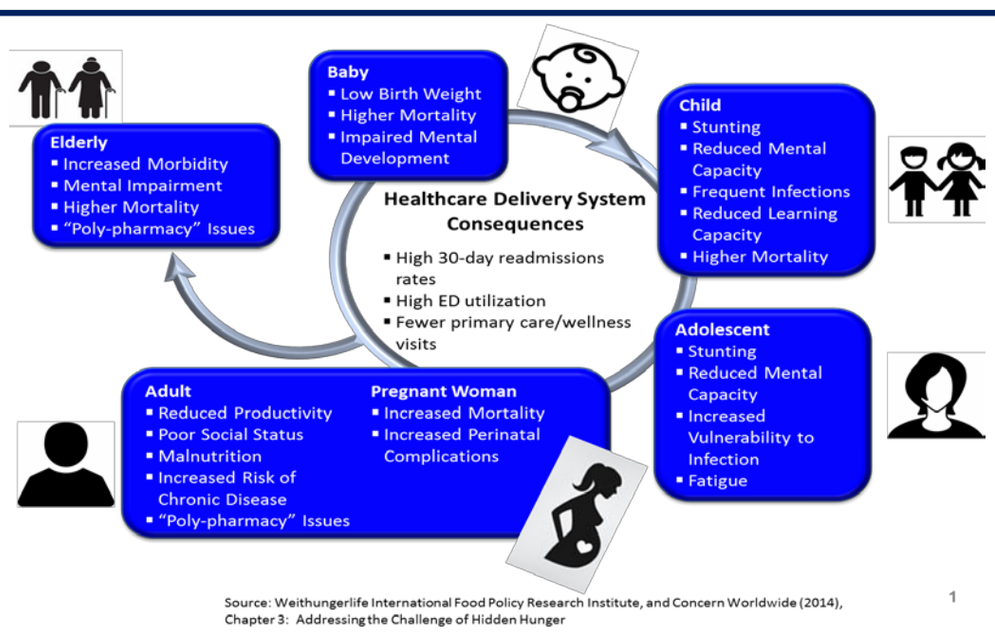


Figure 2: Food Insecurity. The Consequences of Micronutrient Deficiencies Throughout the Life Cycle

PROGRAM GOALS

- To screen, identify and refer food insecure patients to the Food As Health program.
- Provide point of care nutrition education, navigation, and access to affordable, healthy food.
- Improve health outcomes, patient experience and reduce health care cost through the addition of this component of the Food As Health program.

PROGRAM AIM

The Food As Health (FAH) program at LIJ Valley Stream hospital is a novel, evidence based, integrated hospital approach addressing food insecurity with the **aim to improve health outcomes by addressing food insecurity for at risk patients.** The FAH program intends to achieve this aim through collaboration and partnership with food access community based organizations, food vendors and internal health system stakeholders.

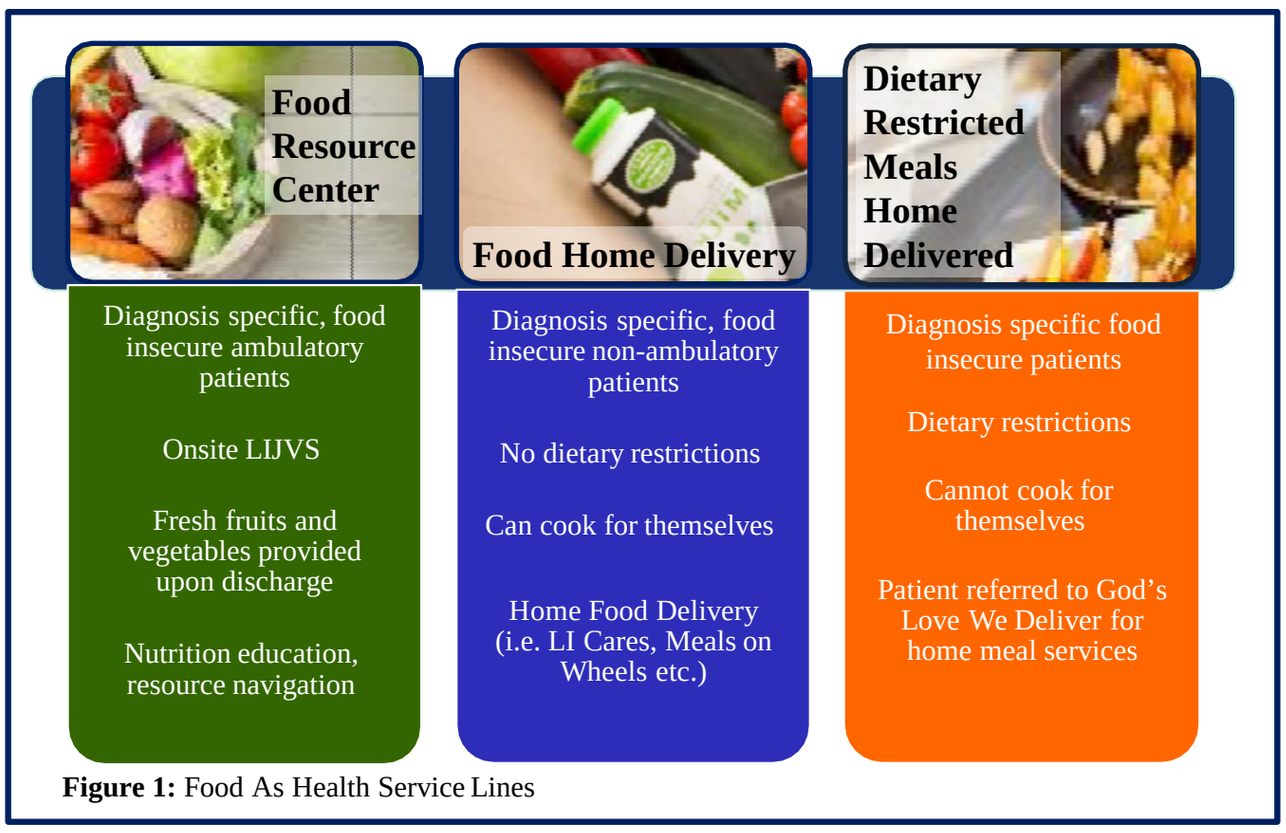
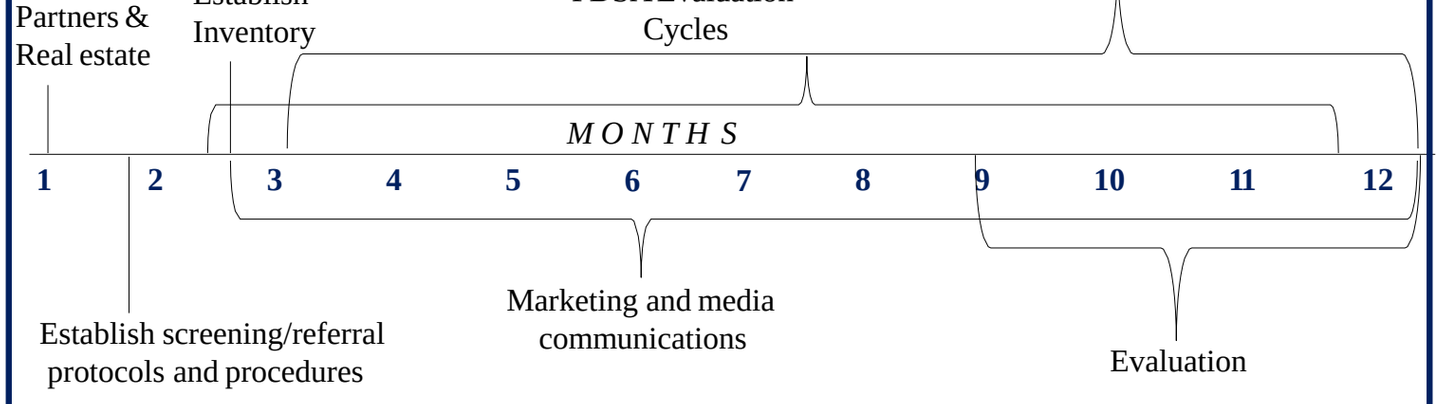


Figure 1: Food As Health Service Lines

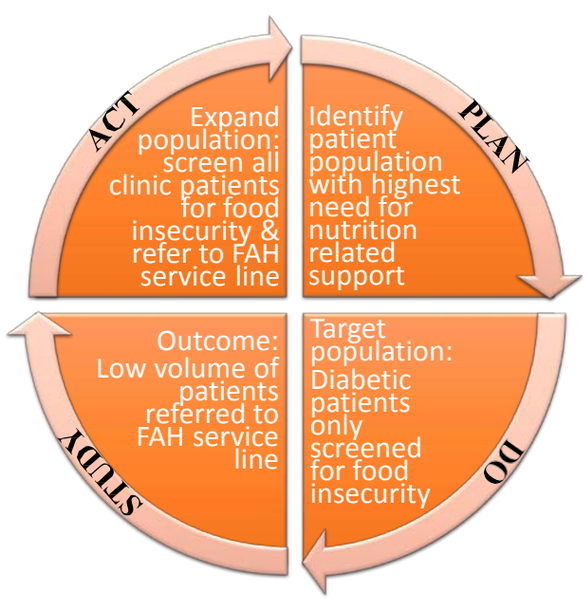
SOCIAL DETERMINANTS OF HEALTH

Social determinants of health factors that negatively impact food security include low income levels, poverty, rent burden and a low level of educational attainment, all of which are present in the LIJVS service areas. The US Census Bureau defines rent burden as the percentage of renter household whose gross rent (plus utilities) is greater than 30% of their monthly pre-tax income. This significantly impacts financial resources for food. The LIJVS service area in Nassau County has a rent burden of 47 – 51% with the service area in Queens reporting 50 – 64%. The effect of social determinants one one's health (Figure 2) are exemplified by the comorbid conditions seen in the primary and secondary diagnoses of the LIJVS population.

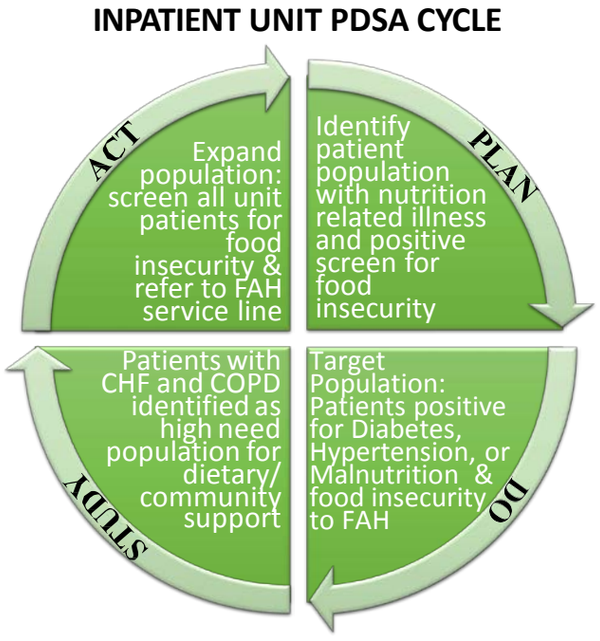
IMPLEMENTATION TIMELINE



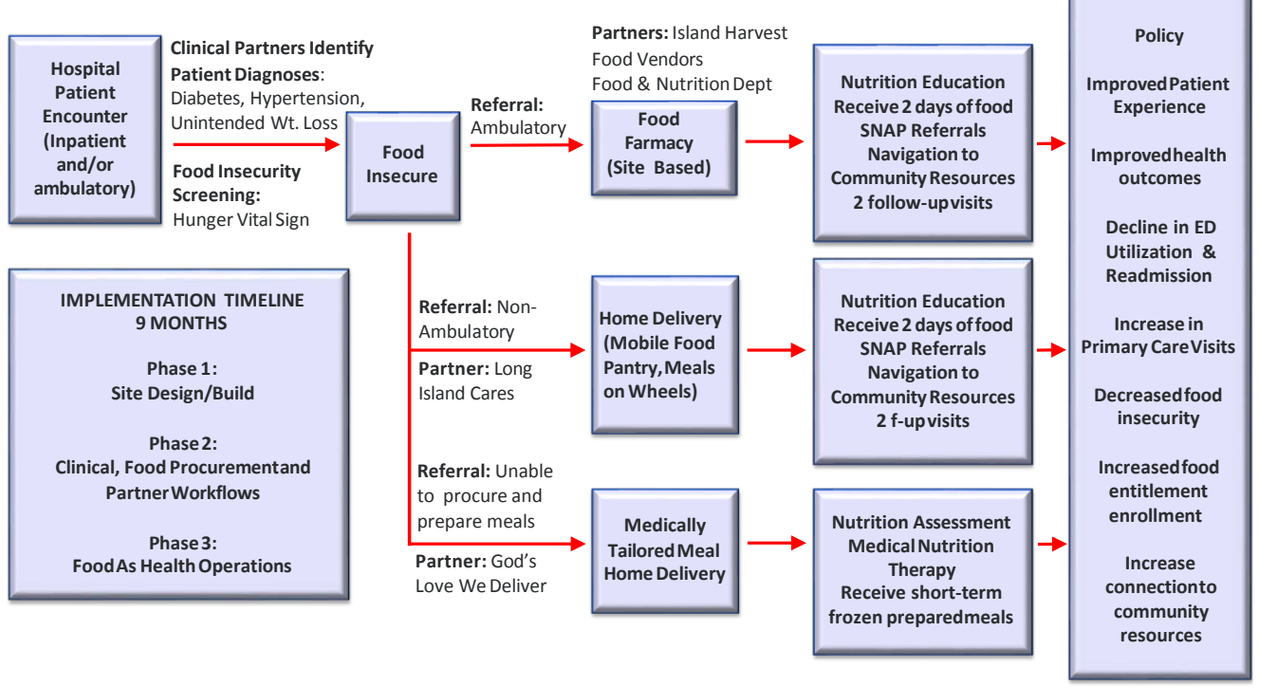
WOUND CLINIC PDSA CYCLE



MEDICAL/SURGICAL INPATIENT UNIT PDSA CYCLE



Food As Health Workflow Diagram



PROGRAM OUTCOMES

Overall Outcome: Improve nutrition and health status of participating FAH patients by increasing access to and consumption of healthy foods through education, entitlements and community food resources.

Outcomes will be measured using the following metrics:

- # Referred to FAH service lines
- # Enrolled in Supplemental Nutrition Assistance Program (SNAP)
- Positive changes reported in FAH participant healthy nutrition knowledge and understanding
- Positive changes reported in FAH participant knowledge, purchasing behavior and consumption of healthy foods
- Improvements in food security

Clinical outcomes will be measured using the following metrics:

- Improved PCP engagement and patient satisfaction
- Improved management of chronic conditions (Diabetes, CHF, COPD, HTN etc.) and malnutrition (HgbA1C, BP, Weight status, etc.)
- Decreased readmission rates
- Decreased emergency department rates

PILOT OUTCOME DATA

In the first 15 weeks of the FAH program, 438 patients were screened for FI, with 124 patients reporting themselves as experiencing food insecurity. Of those 124 patients, 29 were discharged prior to a nutrition assessment, 36 were identified as food insecure but without a nutritional related diagnoses and were referred to social work for support, and 18 were discharged to skilled nursing facilities. 41 were seen at the hospital onsite resource center. 21 patients have returned to the hospital onsite resource center for their first "Refill" visit with the FAH program onsite dietitian.

Food As Health Data: July 9, 2018 – October 11, 2018	
Patients **screened** for food insecurity	438
Positive food insecurity surveys prior to nutritional assessment	124
Patient **discharged** prior to nutritional assessment	29
Patient refer to **Social Work** (not eligible due to non-nutrition related diagnosis)	36
Positive for food insecurity and discharged to **care facility/skilled nursing** facility	18
Patient seen at LIJVS **Food As Health** center	41
Patient 2nd Visits	21

SUSTAINABILITY:

The FAH program has established a quality committee to identify and track the necessary outcome metrics to establish the success of the program by demonstrating established savings through the decrease in avoidable hospital readmissions and ED visits, an increase in patient engagement with their PCP, and improved management of nutrition related illness and food security.

PARTNERS: *Northwell Health **Island Harvest Food Bank #LI Cares ##God's Love We Deliver