Square One
Dr. Yum for all

Abigail Henry, Christine Callahan, Iha Kaul, Olivia Nuelle
Population of Focus

Low-income urban Springfield families with children younger than 5 years old

Square One principally serves community populations in Springfield and Holyoke:

- Nearly 90% of program participants are living at or below the poverty level
- 54% of parents earn less than $15,000 annually
- Provides services to over 800 children each day
Springfield’s Population of Color has been increasing

Notice the “T” Area that overlaps with many of these populations. Keep looking out for the “T” in other maps.

The census defines minority as the total population minus the white non-Hispanic population.

Sources: “USA Tracts” by Esri from U.S. Census, https://datausa.io/profile/geo/springfield-ma/#demographics

© 2019 CONFIDENTIAL & PROPRIETARY – INTERNAL USE ONLY
Springfield has varying levels of Preschool Enrollment

Preschool enrollment levels are based on data from the 2012-2016 American Community Survey (ACS) for the population age 3+ enrolled in preschool or nursery school. Enrollment is based on home address.

Sources: "USA Tracts" by Esri from U.S. Census, Pre-K enrollment from the ACS 2012-2016 Survey

© 2019 CONFIDENTIAL & PROPRIETARY – INTERNAL USE ONLY
Springfield has varying levels of Preschool Enrollment

Preschool enrollment levels are based on data from the 2012-2016 American Community Survey (ACS) for the population age 3+ enrolled in preschool or nursery school. Enrollment is based on home address.

Sources: "USA Tracts" by Esri from U.S. Census, Pre-K enrollment from the ACS 2012-2016 Survey

© 2019 CONFIDENTIAL & PROPRIETARY – INTERNAL USE ONLY
Springfield has many areas with income below the national median.

Nationally, median household income is $57,617.

In Massachusetts, the median household income is $74,167.

In Springfield, median household income is $35,742.

The census defines minority* as the total population minus the white non-Hispanic population.

**Median Household Income**
- >100,000
- 75k-100k
- 50k-75k
- 25k-50k
- <25k

**Minority Population Under 4**
- >460
- 350
- 250
- 100
- <100

**Population Under 4**
- >460
- 350
- 250
- 100
- <150

*This language is problematic.

Springfield has many areas with income below the national median

Nationally, median household income is $57,617

In Massachusetts, the median household income is $74,167

In Springfield, median household income is $35,742

The census defines minority* as the total population minus the white non-Hispanic population

Median Household Income
- >100,000
- 75k-100k
- 50k-75k
- 25k-50k
- <25k

Minority Population Under 4
- >460
- 350
- 250
- 100
- <100

Population Under 4
- >460
- 350
- 250
- 100
- <150

Sources: “USA Tracts” by Esri from U.S. Census, US Census Bureau,
https://www.census.gov/content/dam/Census/library/publications/2017/acs/acsbr16-02.pdf,
https://www.census.gov/quickfacts/fact/table/springfieldcitymassachusetts/MA

*this language is problematic
Large areas of Springfield have limited access to supermarkets, especially in the southern part of the city. The supermarkets included have annual sales of at least $1 million.

Sources: “USA Tracts” by Esri from U.S. Census, “USA Supermarket Access” by Jim Herries from Demographic data from U.S. Census and Esri Business location from infoUSA.
Large areas of Springfield have limited access to supermarkets, especially in the southern part of the city. The supermarkets included have annual sales of at least $1 million.

Sources: “USA Tracts” by Esri from U.S. Census, “USA Supermarket Access” by Jim Herries from Demographic data from U.S. Census and Esri Business location from infoUSA.
Interprofessional Networks of Care

SquareOne programs and team members aim to provide interdisciplinary education and support services to families.

The Team:
- Early education and care providers
- Family support specialist/home visitors
- Social workers
- Senior research associates

Programs tailored to each family’s needs:
- Group, home visitation, personalized case management, emergency child-care
- Baystate physicians and medical professionals often refer expecting/new parents to Square One for services
Doctor Yum

- A website to teach patients the benefits of eating healthy
- Experiential learning
- Evidenced based model
- Problem = some ingredients are too hard to find
- Piloted in 2 Square One classrooms last year
- Expanding to all Square One classrooms this year

“Don’t yuck someone’s yum!”

Food Explorers! Give your Yum Score!

- Super Yuck
- Yuck
- Okay
- Yum
- Super Yum

Keep trying that new food for a Super Yum
Recreating Dr. Yum at Home

Recipe sent home to parents

**Green Goblin Hummus**

1 10 ounce box frozen baby spinach (or)
2 cups fresh chopped
2 15 ounce cans chickpeas
4 cloves garlic
¼ cup tahini
¼ cup olive oil
2 tablespoons lemon juice
1 teaspoon salt
¼ teaspoon red pepper flakes
½ teaspoon black pepper

**Spinach** - Only found at Americas (frozen, not fresh)

**Chickpeas** - found at all small and large stores

**Tahini** - Not found anywhere in Mason Square

**Olive Oil** - found at most stores, but expensive
Our Project: Survey Creation

**Dr. Yum Parent Survey**

**Staff Survey**

**Child Survey**

**Parent Education Survey**
Our Project: Survey Creation

Created 4 surveys to track metrics for recent Health New England grant that will fund the expansion of Dr. Yum to all Square One classrooms.

1. Increase preschool children’s observed consumption of fresh/frozen fruits & vegetables by 50%

2. Increase staff, family member and caretaker knowledge and awareness of health food including fresh fruit and vegetables

3. Decrease staff, family member, and caretaker self-reported unhealthy

1. Increase staff, family member, and caretaker self-reported healthy food consumption by 50%

1. Increase family member and caretaker advocacy and participation in supporting healthy food in school and home environments by 40%

Parent/Caretaker Education Survey

Staff Survey

Child Survey

Post Dr. Yum Parent Survey
Population Specific Advocacy Issues

In Mason Square:

- 19% of households are food insecure = worse health outcomes
- 60% of Springfield’s K-12 Students are overweight or obese
- Diabetes mortality is higher in Springfield (52.3 per 100,000) than all of Massachusetts (35.3/100,000)
Advocacy Pitch

Child care and food insecurity are priorities in the 2016 CHNA

● Square One is reimbursed $40 per day per child
  ○ It costs $63 per day

Square One teaches kids to be excited about fruits and vegetables

● There is no major grocery store in Mason Square
We need to **invest money in early childhood education**:
- Higher education levels
- Less drug use
- Less violent crime

We need to **stop making excuses** about why supermarkets can’t open in low-income neighborhoods:
- It lowers food insecurity
- Better diet = better health
- Lower healthcare costs

---

Square One relies on the creativity and hard work of its leaders who **apply for grants** and work for **fundraising** to keep running their Early Childhood Education Programs.

---

We need to **invest money in early childhood education**:

- Call State Senator Lesser: *(413) 526-6501*
- Ask for an increase in early education reimbursement rates
- Ask them to contact Senate President Spilka and Chairman Rodrigues in support of the Early Education Workforce

We need to **stop making excuses** about why supermarkets can’t open in low-income neighborhoods:

- Call Mayor Sarno: *(413) 784-1200*
- Ask for a supermarket in Mason Square
“We’re here to make sure that in America, where a child grows up doesn’t determine whether they have access to a better—healthier—future. By introducing powerful incentives for private investors to take a chance on projects—like a new, healthier grocery store—we can make that difference for America’s children, while creating new jobs and services in their communities.”

- Former U.S. Treasury Secretary Timothy Geithner
Key Takeaways from our Population Health Clerkship

- **Square One**
  - More than just childcare
  - Implementing Dr. Yum curriculum

- **Food insecurity**
  - Food desert
  - Lack of money, time, and education

- Lack of funds for early education
Interprofessional exposure

We learned:

● Pharmacists and medical doctors have different specialties but rely on one another
● Different professions allow more perspectives to be explored
● As an interprofessional team we are able to teach each other daily and work together to solve problems within our community
● Having an understanding of each profession, respecting each profession and making lifelong friends
What questions do you have?
THANK YOU

Jenise Katalina, Dawn Distefano (Square One)
Jessie Gleckel (Public Health Institute- PHI)
Dr. Chrystal Wittcopp (High Street Clinic)
Justin Ayala & Dr. Sarah McAdoo (UMMS)
Dr. Melissa Mattison (WNEU COPHS)
REFERENCES

The Ripple Group-GIS Mapping

Doctoryum.org

https://www.bostonglobe.com/business/2016/01/05/advocates-press-baker-release-funds-for-healthy-foods-initiative/eAbSiYKA2a0J4NyTEsraoK/story.html

https://ucdavis.app.box.com/s/mkfvxkqcafnb1hwtrm46

https://www.npr.org/sections/thesalt/2015/05/14/406476968/why-one-grocery-chain-is-thriving-in-philadelphias-food-deserts