

Sustaining an SBHC Therapeutic Garden

fostering a school-wide culture of health



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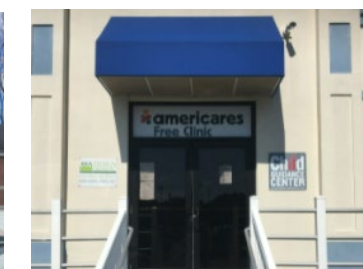
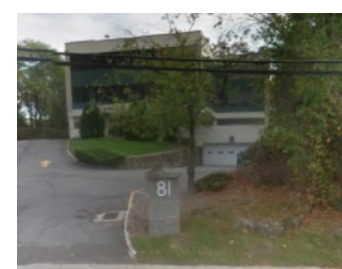
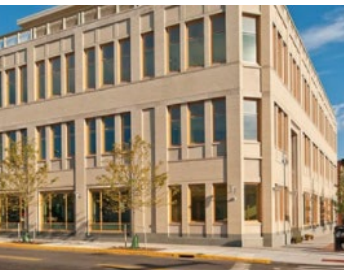
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Health Services Outside of School

Community Health Center, Inc.



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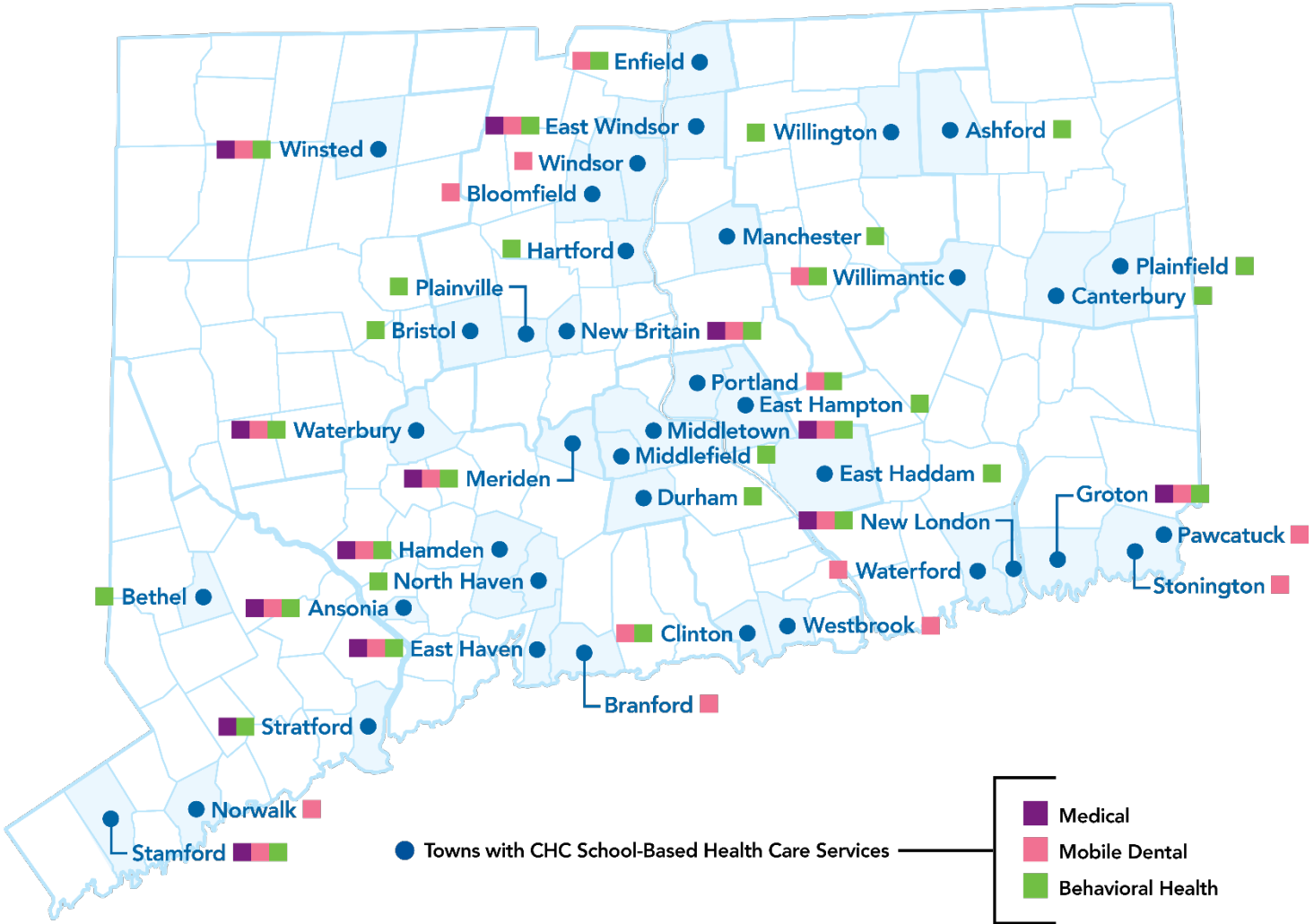


Community Health Center, Inc. Health Care Is A Right, Not A Privilege



Community Health Center, Inc.

School-Based Health Care Service Sites in Connecticut



The Beginning



**Macdonough
Elementary**
Middletown
Connecticut

**Since
1993!**



School Gardens Through The SBHC

Nicole Casbarro &
Kelly Jackson
School Health Alliance
Washington, DC 2024



A Successful Garden...

“Creates community, is an inviting space, is resourced and supported, is thriving and used,”

— Kate Burt, et al, 2018

Why Gardens?



School Gardens Have Been Shown To...

- Increase students willingness to try and consumption of fruits and vegetables **(Hanbazaza, et al., 2015)**
- Have a positive impact on physical activity and physiological outcomes **(Gato, et al 2015)**
- Improve academic achievement in multiple subjects **(Burt, Koch, Contento, 2017)**
- Improve self-understanding and students' ability to work well with others **(Robinson, Zajicek, 2005)**
- Provide positive mental well-being, self-discipline, stress reduction and improvement in behaviors , **(McCormick 2017).**

How does a school garden help?



- A hyperlocal response to Food Insecurity through education & sometimes food production
- A way to build equity in public schools
- A vehicle for interdisciplinary outreach between medical / nursing, behavioral health and the school

Greenhouses & Social Justice



Creating Equity

- Increase access to green spaces
- Opportunity for hands-on, experiential learning
- Enrichment activities (i.e. cooking classes, summer volunteering)
- Cultural connection (Greer, 2019)

Food Justice

- Food Insecurity has increased since COVID-19 pandemic (Mangundu, R, Wilde, S 2020) (Lal, R. 2020)
- Acknowledgement of colonial land stealing (Orozco, AA, Ward, A., Grady-Lovelace, G., 2018)
- Recognizing racism in the anti-obesity movement (AAP, 2023)
- Empowering communities through education & access (Huelskamp, AC. (2018)



Greenhouse Project

- HRSA GRANT2019
- Interdisciplinary Steering Committee



ROOTS New Britain



NEW BRITAIN
ROOTS



Gauging Community Interest



- A search for a validated tool through EBSCO, CINAHL, PsycINFO, Google Scholar and ProQuest turned up negative.
- Several studies interview teachers, gardeners, principals, administrators and superintendents
- Most are retrospective or part of an evaluation
- Community Assessment School Garden Implementation Tool (CASGIT)
- Preferences, Beliefs, Willingness to Volunteer
- Adapted from current literature and other surveys
- Assessed for face and content validity by a team of 6 experts
- Administered to a convenience sample of parents for initial feedback

American Academy of Pediatrics Food Insecurity Screen



American Academy of Pediatrics



1. American Academy of Pediatrics
Food Insecurity Screen
2. Within the past 12 months, the food we bought just didn't last and we didn't have money to get more." Yes or no?

Assumptions

What we assumed:

- Those who identify as food insecure (FI) would be more willing to volunteer
- Those who shop at farmers' markets or use gardens would be more willing to volunteer
- People who eat more fruits and vegetables would be more willing to volunteer
- Those with experience or interest in gardening would be more willing to volunteer



Fisher's Exact Test – 88 Respondents



- Those who have grown food in the past were more likely to be willing to volunteer (p-value 0.025)
- Those with an interest in learning how to garden were more likely to be willing to volunteer (p-value 0.019)
- Shopping habits and fruit & vegetable intake was also not associated with willingness to volunteer (p-value 0.2)



Interest In Nutrition

- 33 respondents said they would attend a cooking class
- 52 respondents said they would like the harvest to be used in cooking classes
- Nutrition education was the top answer for garden use in preferences (51)

Top 3 beliefs about what the garden could do for their children were

- Encourage healthy eating choices
- Assist in nutrition education
- Encourage fruit & vegetable (F/V) consumption



Behavioral Health & Education



- 40 would like to see the garden used for individual therapy
- 33 for group therapy
- Top belief was that the garden “could provide a positive environment for taste, touch and smell”
- Provide a hands-on learning experience (45)
- Science instruction (43)
- Art (29), Math (22) History or social studies (22)
- Improve my child’s behavior in the classroom (19)

Cultural Connections



Gardens can have significant cultural relevance in immigrant communities, many of whom report a recent history of gardening in their country of origin and a desire to grow their own food, (Greer, 2019)



Limitations



- Survey was not a validated tool
- COVID19 changed our plans to host focus groups
- The survey allowed for too great a diversity of answers



Earth Day 2021!



Food Literacy



Food literacy is the holistic story of our food

- Where food comes from
- Who produces it
- How it is shipped
- How it is grown & prepared
- How food affects our bodies and minds
- How food connects us to our past

Behavioral Health Visits



- Sprouting Seeds to instill confidence, empowerment
- Connecting to cultural origin and family roots
- Relating back to present moment, i.e. what's going on for them now
- Community building – we all take part in this greenhouse, no role is too small

Recruiting Participants



- Offer the class to a single grade
- Offer classes to select clients
- Reach out to kids with BMI >85%
- Promote at outreach events

Where to Start



- After meeting with your Principal and deciding which grades, days & times work best, you can go ahead and send out those permission slips!
- Be sure to attach your enrollment form & a photo consent with permission slip.
- Confirming all new patient charts are entered correctly as they come in.
- Make sure your lesson plans & supplies are ready to go for the first day



GARDEN WELLNESS CLASSES
at John Barry Elementary School
through the
School Based Health Center
Starting March 2, 2021

Dear Parents,

You child has the opportunity to participate in a Garden Wellness Program at the School Based Health Center at John Barry Elementary School! The class will be taught by the health center staff, Nicole Casbarro, nurse practitioner and certified Yoga instructor.

To participate your child must be signed up for the health center and in good academic standing. If your child is signed up for the health center, simply return the signed portion of this slip below. If your child is not signed up and would like to participate, please fill out an enrollment form either on-line at www.sbhc1.com or have your child get one at the nurses' station and return it along with the permission slip.

We will be working in the new Barry Garden Greenhouse. We will learn about, grow and harvest fresh fruit and vegetables! Classes will discuss nutrition education and will be hands-on and project based. We will adhere to social distancing, masks will be worn and cohorts will be maintained.

Please call the SBHC with questions: 203-237-8831 x2219

I give permission for my child _____

to participate in the SBHC Garden Wellness Class at John Barry Elementary School.

Teacher _____

Parent Name

Signature



Our Permission Slip



Increasing Visits & Enrollment



Spring 2021 12-Weeks

- 19 children enrolled in garden program
- 8 new enrollments – kids who signed up for health center to participate in garden program
- 197 billable health education visits from March to June (12 week program)

Fall 2021 6-Weeks

- 41 children enrolled in the garden program
- 15/19 kids from Spring re-enrolled (2 moved)
- 18 new enrollments – kids who signed up for the health center to participate in the program
- Estimated 240 billable health education visits over a 6-week program

Numbers from Spring 2022 To Current



- **34** New enrollments to our School Based Health Center because of the interest in the Garden Program
- **13** Existing SBHC patients who enrolled in our program from learning about it over time

How To Bill & Chart - Medical



- DX code Z71.3 Dietary Counseling
- If Pt. BMI >85%, add Z68.53 or >95% add Z68.54
- CPT 99411 Group Health Education
- >50% of this visit was spent in counseling.
- Continue to reinforce Healthy Eating and Activity.

How To Bill & Chart – Behavioral Health



- Bill same as individual diagnosis code.
- Bill groups same as usual.

Record-Journal



Students learn science, math via gardening in school greenhouse

Students enjoy learning to walk, plant, water, weed, and harvest in the school greenhouse. They learn about science, math, and nutrition. The greenhouse is a great place for students to learn about plants and the environment. They also learn about the importance of healthy eating and exercise.

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The greenhouse “is a hands-on, hyperlocal response to larger issues such as food insecurity and childhood obesity”

Summer Volunteers 2021 - 2024



Seedling Sale May 2022, 2023, 2024



Farm to School Grant



- John Barry Elementary School in Meriden
- Create a connection from farms to schools
- Visits from farmers, 3 field trips to farms, adopt a cow program
- School-wide Garden Advisory Committee
- 3 new raised beds





UConn is offering
FREE Nutrition classes for
you and your child



6 weeks of classes in the Barry Cafe

Date	Time
December 14th	5:30-6:30 p.m.
January 4th	5:30-6:30 p.m.
January 18th	5:30-6:30 p.m.
February 1st	5:30-6:30 p.m.
February 15th	5:30-6:30 p.m.
March 1st	5:30-6:30 p.m.

Space is limited to 20 families, sign your child up today! If interested, please respond to this post and an application will be sent home with your child.

Family Nutrition Classes With UConn EFNEP (Expanded Food & Nutrition Program)



Collaboration with Lyman Hall Agricultural Program

Interactive Activities



Sample Curriculum



Week One- Establish guidelines, tour the greenhouse. Discuss what helps plants grow and related it to our own health.

Week Four - Today we introduced My Plate. We gave the kids cut-outs of food from magazines and had them construct a meal according to My Plate

Week Two- Where food comes from and the difference between processed and fresh food. Asked students to think about where each item on their lunch tray comes from. (it's origin)

Week Five – Today we discuss the five senses and sight, taste, touch, sound and smell. We talked about how our whole senses are involved in the food we eat, not just taste.

Week Three – Reviewed the four food groups. Dissected favorite meals and discussed what food groups are in those meals.

Week Six- Memory, culture and food. What foods do you like? What foods do you not like? Is there a food that reminds you of a special time or person? Is there a food your family eats that is special to you.



Elements of a successful garden:

A Successful garden “creates community, is an inviting space, is resourced and supported, is thriving and is used,” (Burt, et al, 2018).

Staffing	Time	Funding	Curriculum	Space
<ul style="list-style-type: none"> • Adequate # of volunteers • Compensated & Dedicated garden coordinator • Community involvement • Teacher / Staff interest • Supportive administration 	<ul style="list-style-type: none"> • For classes to use the garden • To train staff & faculty • Garden maintenance • Lesson planning • Maintenance during summer months 	<ul style="list-style-type: none"> • Time for grant seeking • Adequate distribution & allocation of funds 	<ul style="list-style-type: none"> • Integrated into the school day • Classroom management of students in the garden • Positive student engagement • Curriculum design 	<ul style="list-style-type: none"> • To store tools • For indoor garden • For outside gardening • Is inviting & secure • Has a water source



Future Directions

- Use a participatory action research model to create a validated tool
- Pre/Post vegetable identification and consumption
- Create an interdisciplinary curriculum that can be used across other SBHC's
- Master Gardener volunteers hours
- Volunteer training days
- Community & Family events
- Funding / Grants to expand to other schools

Thank You



Email SBHCinfo@chc1.com

Or call 860-852-0871

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jacksok@chc1.com

Nicole Casbarro
casbarn@chc1.com

(Please leave a message and an SBHC staff member will get back to you shortly)