

Know, Grow, and Eat Your Vegetables

Increasing Access to Healthier Foods Among Individuals with Intellectual and Developmental Disabilities



Presenters

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Presentation Agenda

- Introduction to NACCHO's Health and Disability Project
- Overview of Health Disparities Data/Data Sources
- Overview of Schenectady County
- Know, Grow, and Eat Your Vegetables Program
- Sustainability
- Q&A



About NACCHO

National Association of County and City Health Officials

Vision

Health, equity, and well-being for all people in their communities through public health policies and services

Mission

...to be a leader, partner, catalyst, and voice for local health departments in order to ensure the conditions that promote health and equity, combat disease, and improve the quality and length of all lives

Members

All 2,800 local health departments (LHDs) in the United States



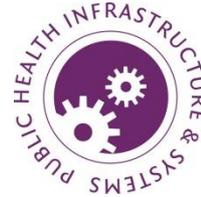
NACCHO's Programs



Topics include chronic disease, HIV/STI, other infectious diseases, injury, adolescent health, reproductive health, immunization, tobacco, primary care, mental health, and health and disability.



Topics include the public health effects of climate change, food safety, environmental health tracking and assessment, and environmental justice.



Topics include accreditation and quality improvement, community health status indicators, public health informatics, performance standards, public health law, and cross-jurisdictional sharing of services.



Topics include local readiness for pandemic influenza, Medical Reserve Corps, Project Public Health Ready, and Strategic National Stockpile.



About the Health and Disability Project

NACCHO, with support from the National Center on Birth Defects and Developmental Disabilities at the Centers for Disease Control and Prevention, promotes the **inclusion** and **engagement** of **people with disabilities** in the planning, implementation, and evaluation of public health programs, products, and services. The goal of NACCHO's Health and Disability Project is to provide local health departments (LHDs) with practical strategies and recommendations, including tools and materials developed by peer LHDs, and relevant information from partner organizations.

The purpose of this project is to:

- Inform and educate LHDs about health and disability activities and resources
- Provide support to continue and maintain peer assistance network
- Develop and share model practices related to health promotion activities for people with disabilities



Health and Disability Project Accomplishments

- Health and Disability Workgroup
- Funding and Technical Assistance Programs for LHDs
- Health and Disability tools in NACCHO's Toolbox
- Health and Disability electronic newsletter
- Article in Journal of Public Health Management and Practice
- Presentations at NACCHO Annual and partner conferences
- Improvements to NACCHO's Website to increase accessibility
- Integration of people with disabilities into NACCHO Policy Statements
- Learning Community with two modules
 - ❖ Emergency Planning and Preparedness for People with Disabilities
 - ❖ Obesity Prevention and Physical Activity Promotion for People with Disabilities
- Health and Disability Model Practices
- Partner in The Arc's HealthMeet™ program

Model and Promising Practices

- NACCHO's Model Practices Program honors initiatives—including programs, resources and tools—that demonstrate how local health departments and their community partners can effectively collaborate to address local public health concerns.
- The Model Practices Database is an online, searchable collection of innovative best practices across public health areas. Use the database to find proven initiatives, programs, resources, administrative practices and tools that address local public health needs
- Health and Disability Model and Promising Practices
 - ❖ [Model] Know, Grow, and Eat Your Vegetables: Increasing Access to Healthier Foods Among the Developmentally Disabled
 - ❖ [Promising] Preparing One More
 - ❖ [Promising] Emergency Preparedness for Citizens with Developmental Disabilities Incorporated into their Annual Individual Plan
 - ❖ [Promising] Wellness for Every Body



Health Disparities Data

Tobacco Use

- 30% of people with disabilities are current smokers, as opposed to 21% of people without disabilities (source: Surgeon General)

Obesity and Physical Activity

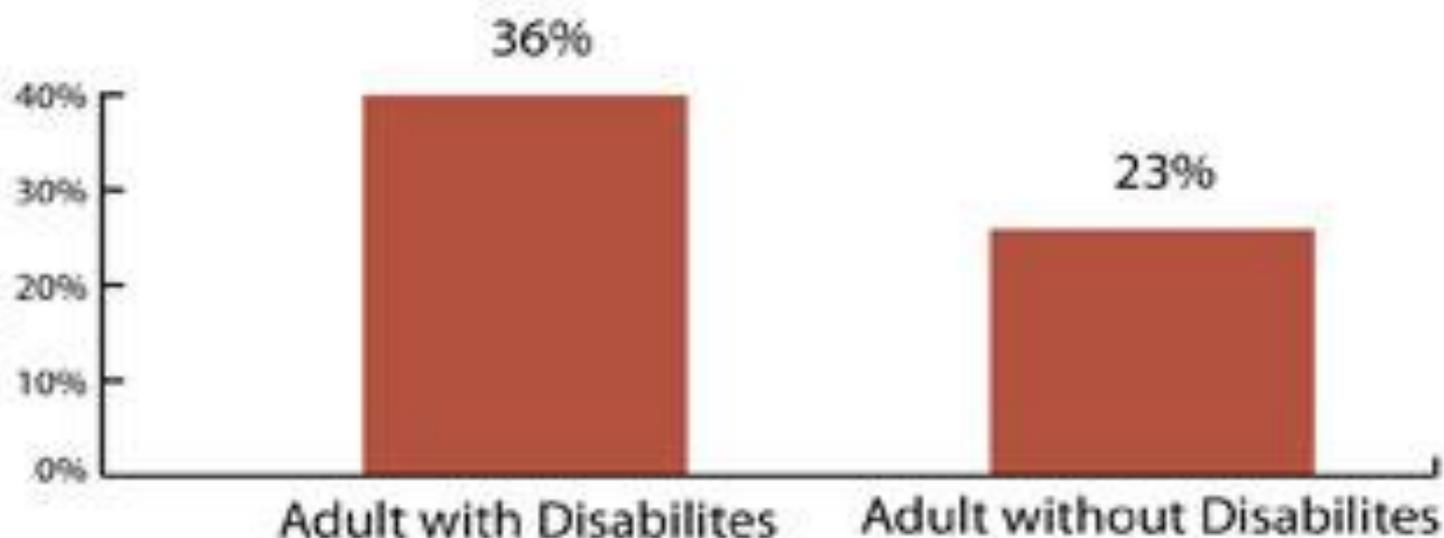
- Adults with disabilities are 58% more likely to be obese than their peers without disabilities (source: CDC/BRFSS)
- Children and adolescents with disabilities are 38% more likely to be obese than children without disabilities (source: CDC/BRFSS)
- Adults with disabilities are less likely to engage in regular physical activity than their peers without disabilities (source: National Center for Health Statistics)

Obstacles: lack of education about healthy eating options, inaccessible fitness opportunities, to physical limitations that may limit a person's ability to exercise.

Percentage of Obesity Among Adults by Disability Status

Obesity rates for adults with disabilities are 58% higher than for adults without disabilities.

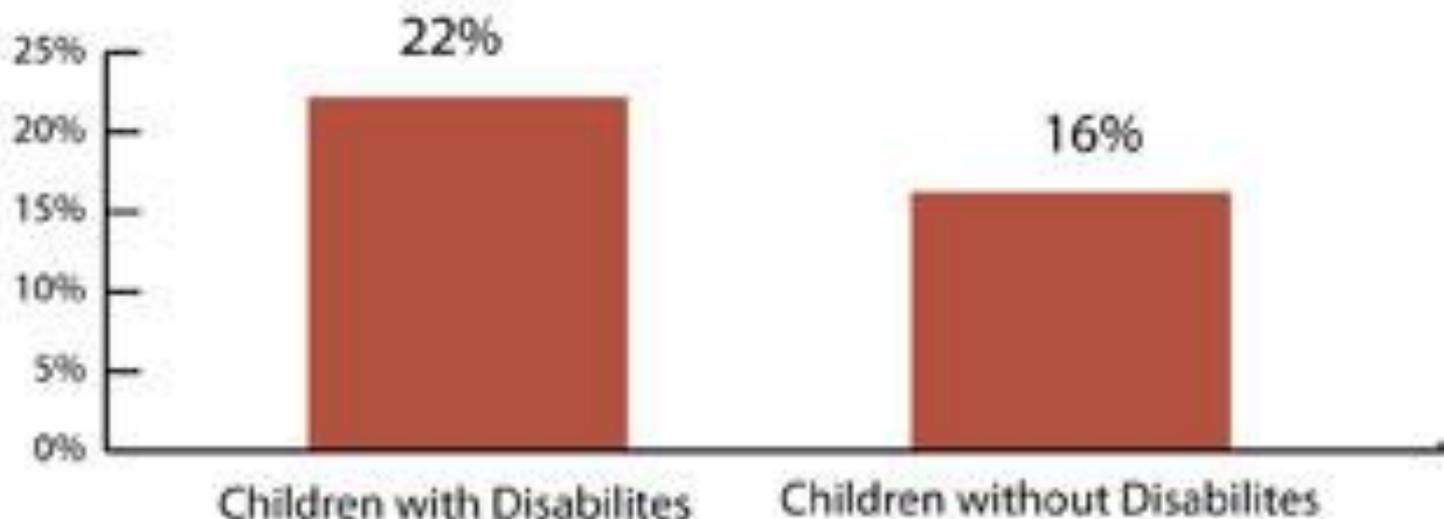
From the 2008 Behavioral Risk Factor Surveillance System.



Percentage of Obesity Among Children Ages 2-17, by Disability Status

Obesity rates for children with disabilities are 38% higher than for children without disabilities.

From the 2008 Behavioral Risk Factor Surveillance System.



Health Disparities Data

Oral Health:

- People with disabilities have limited access to oral health care and are less likely to receive dental care (source: Surgeon General)
- Children and adolescents with disabilities are almost twice as likely to have unmet oral health care needs as their peers without disabilities (source: Surgeon General)

Obstacles: Physical barriers, inaccessible and unreliable transportation, and limited insurance coverage.



Health Disparities Data

Women's Health:

- Women with disabilities are more likely to be affected by depression, obesity, and diabetes, are less able to use screening equipment, and are less likely to receive preventative care than women without disabilities.
- Fewer women with disabilities have mammograms as recommended than women without a disability.
- Adolescents with disabilities are just as likely as their peers to be sexually active, but are less likely to use contraception.
- 56% of teachers in technical education programs reported that they were teaching at least one teen with a disability who was pregnant or parenting at least one child.

Various sources. Contact disability@naccho.org for more information.



Health Data Sources

www.cdc.gov

Disability and Health Data System (BRFSS data)

www.factfinder2.census.gov

American Community Survey

www.healthypeople.gov

Healthy People 2020

www.surgeongeneral.gov

U.S. Surgeon General Reports

www.disabilityandhealthjnl.com

Disability and Health Journal (AAHD)

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Disability and Health Data System

Health Topics :: Health Risks & Behaviors :: Body Mass Index :: Obese :: Disability :: 2010

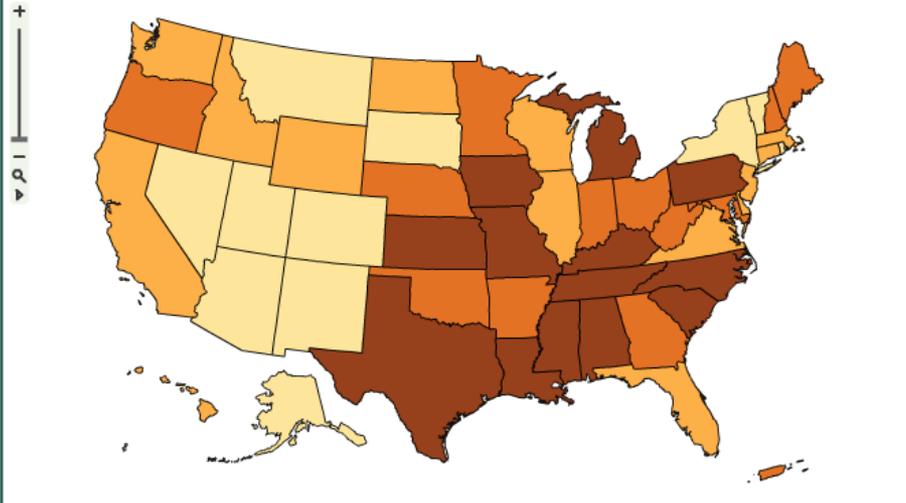
Choose Data

Select Census Area

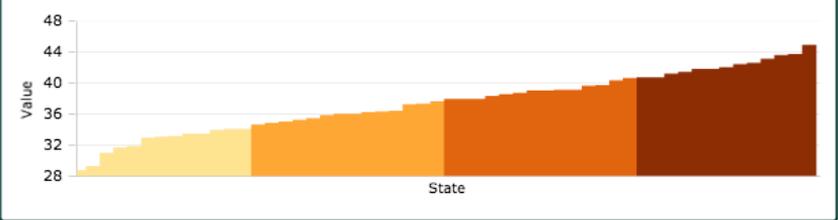
Save as an Image

Print

United States & Territories



Bar Chart



Trend Line or Bar Chart

State or Census Area Table

States & Territories Table

	Area	Value	95% CI	No.	Weighted No.
Alabama	Alabama	40.7	4.2	1,025	394,212
Alaska	Alaska	31.6	7.2	180	34,268
Arizona	Arizona	30.9	5.5	605	364,978
Arkansas	Arkansas	40.6	6.5	515	213,508
California	California	36.0	2.8	1,515	1,902,087
Colorado	Colorado	31.8	3.6	895	248,617
Connecticut	Connecticut	34.8	4.9	541	159,649
Delaware	Delaware	36.0	5.4	466	58,608
District of Columbia	District of Columbia	34.0	5.9	300	31,238
Florida	Florida	36.3	3.1	4,349	1,324,527
Georgia	Georgia	40.3	5.0	617	608,403
Guam	Guam	33.4	13.1	33	3,977
Hawaii	Hawaii	36.2	6.4	438	56,936
Idaho	Idaho	37.3	4.3	772	100,365
Illinois	Illinois	35.4	5.1	506	711,436
Indiana	Indiana	39.7	3.7	1,254	450,586

View Indicator Notes

Title & Notes

Body mass index among adults ≥ 18 years of age by disability status

Values are expressed as percentages.

Source: [BRFSS](#)

For analysis details see: [Methods](#)

Map/Legend Settings

Legend

- 28.7 - 34.5
- 34.6 - 37.8
- 37.9 - 40.6
- 40.7 - 44.9
- U.S. Census Regions
- U.S. Census Divisions

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention



Schenectady County Public Health Services

Strategic Alliance for Health

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Strategic Alliance for Health Project
Coordinator

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Schenectady County, NY

Located in Upstate NY

3 hours north of NYC

3 hours west of Boston, MA



Next to the Capital of NYS – Albany, NY



Suburban, Rural and Urban areas



Health Department

Designated as a Full – Service Health Department by New York State
Department of Health

Clinic

Prevention and Patient Services

Environmental Health

Children with Special Needs

Administration



Schenectady City Data

- Population** **Approx. 150,000 over 700 acres**
High population density
- Employment :** **7.4 % unemployment**
- Poverty:** **18% of children under 18 live in poverty**
Some zip codes as high as 40%
- Education :** **City School District Approximate 55%**
graduation rate
- Obesity:** **33% of county residents obese**



Strategic Alliance for Health

2008-2012

Part of CDC's *Healthy Communities Program*

Administered and technical assistance provided by the
New York State Department of Health

“Promote healthy living everywhere people live, work, and
play”

Schools, Communities, Community Based Institutions,
Worksites, Healthcare

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Typical street in target area



Elementary School



Playground

INTERNATIONAL FOOD CENTER
Quality Fresh Halal Meat
LAMB - GOAT - VEAL - BEEF - CHICKEN - GROCERIES - VEGETABLES - SPICES

Newport
pleasure!
EVERYDAY LOW PRICE
\$ 6.88 PLUS TAX

ATM
SPECIALS
SUB'S

Halal

831 ALBANY STREET
518-370-3300

OPEN

BEEF PATTIES
\$.99 EA.

Open

WE TOW CARS
WE BUY CARS
WE TINK CAR

boost
As-Salaam
CULTURE

Corner Store



Policy, Systems and Environmental Change



Socio-ecological Model:

Changing How We Do Business



Overall Strategic Alliance for Health Goals

Broad based coalition formed to work on 3 goals

1. Increasing access to fresh fruits and vegetables
2. Increasing opportunities for residents to be physically active
3. Decreasing tobacco use and exposure to secondhand smoke



How do we address issues?

SAH Subawards Program

One time funding

No personnel funding

Strong link to evidence based program or promising practice

Robust evaluation component

Sustainable





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Roots & Wisdom

THE 6A
TOMATOES
ZONE


COM
Needs

From Seeds to Plants

1. Sow seeds in a tray	2. Water regularly
3. Cover with soil	4. Place in a warm place
5. Wait for seeds to germinate	6. Thin out the seedlings
7. Transplant into pots	8. Water regularly
9. Place in a sunny place	10. Wait for plants to grow

Tomato Care

1. Water regularly	2. Stake the plants
3. Prune the plants	4. Fertilize the plants
5. Watch for pests	6. Harvest the tomatoes

Tomato Recipes

1. Tomato Soup	2. Tomato Sauce
3. Tomato Bruschetta	4. Tomato Pasta
5. Tomato Salad	6. Tomato Pie

Implementation Guide

Available at
www.schenectadycounty.com/publichealth



Know, Grow, and Eat your Vegetables:

Policy, Systems, and Environmental Changes to Increase
Access to Healthier Foods among Individuals with
Intellectual and Developmental Disabilities



Schenectady County
New York



Schenectady County Strategic Alliance for Health

Creating a Culture of Healthy Living

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Creating
a Culture of
Healthy Living

About Schenectady ARC

Private, non-profit organization serving 1,400 individuals with intellectual and developmental disabilities (I/DD) in Schenectady County, New York

620 employees provide a full range of residential, vocational, day, clinical and family support services

Commenced operation of a horticulture program in the mid-1970' s





Located at Maple Ridge Day Center in Rotterdam, New York

Serves 250 individuals with an I/DD in a 3,000 square foot commercial greenhouse

Instruction in nursery and greenhouse management, floral design, plant cultivation and potting, traditional gardening techniques, landscape maintenance and plant nutrition

Conducts floral installation at numerous community sites, participates in regional flower shows, provides garden development and maintenance consultation services and operates three vegetable garden sites



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Schenectady ARC and Schenectady County Public Health Services

- **2009** - Joined the Schenectady County Strategic Alliance for Health
- **2010** - Know, Grow and Eat Your Vegetables, Maple Ridge Day Center
- **2011** - The Vegetable Garden at Minard House
- **2012** - Know, Grow and Eat Your Vegetables, Princetown Ridge Day Center
- **2012** - Special Needs Point of Dispensing (POD)
- **2013** - Health Shares Program, AstraZeneca Healthcare Foundation



Compelling Data – Schenectady County

10.7% (16,463) of civilian non-institutionalized population in Schenectady County has a disability

Age-adjusted heart disease is a leading cause of death

Coronary heart disease hospitalization rate per 10,000 of 51.2

Rate of hospitalization due to hypertension is 135% more than the expected rate (Hamilton Hill neighborhood)

Higher rate of self-reported blood pressure compared to New York State (31% versus 25.7%)

64.8% of adult population is considered to be obese

Compelling Data – Individuals with I/DD

People with an I/DD are 50% more likely to be diagnosed with obesity, diabetes, heart disease and epilepsy.

People with I/DD and “special health care needs frequently have nutrition concerns” including obesity (American Dietetic Association)

Children with physical and cognitive disabilities have higher prevalence of being overweight compared to non-disabled peers (Society of Adolescent Health)

9% (137) of Schenectady ARC’s 1,200 participants are diagnosed with cardiovascular disease, obesity and/or diabetes.



Model Solutions

Participation in a garden-based nutrition education program led to increased awareness and consumption of fruits and vegetables among children¹

Adolescents who participated in a garden-based nutrition intervention increased their servings of fruits and vegetables compared to those who did not.²

Interventions focusing on diet and the nutritional intake of people with developmental disabilities were successful in improving quality of life and dietary patterns as well as reducing the rate of serious secondary medical conditions.³

Improving access to and consumption of healthier foods could help lower the risks for developing chronic diseases and obesity.⁴

Additional literature revealed the positive benefits of using a nutrition education program for persons with developmental disabilities living in group homes.

¹A Garden Pilot Project Enhances Fruit and Vegetable Consumption Among Children, 2009

²Cornell Garden-Based Learning, McGregor, 2009

³“Improving the Nutrition and Health of People with Developmental Disabilities via On-Line Program Dissemination”, 2010

⁴Guide to Community Preventive Services, 2010



The Know, Grow and Eat Your Vegetables Program

Decision made to generalize the garden-based education model to people with I/DD

Received a \$3,100 grant from the Schenectady County Public Health Service's Strategic Alliance for Health

Location: Horticulture Center greenhouse, Rotterdam, New York



KNOW, GROW & EAT YOUR VEGETABLES
A nutrition education program operated by
Schenectady ARC
in collaboration with
Cornell Cooperative Extension of Schenectady County
& Schenectady County Public Health Services



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Program Objectives

Objective 1:

Program participants will increase their awareness of and contact with vegetables.

Objective 2:

Program participants will learn healthy meal preparation strategies.

Objective 3:

Program participants will have increased access to fresh produce through incorporating harvested produce into healthy meals.



Stage One: Pre-project assessment

Baseline survey administered to SARC day program participants

Assessed current knowledge and consumption of 15 vegetable types to be grown.

- Tomatoes
- Green peppers
- Cucumbers
- Peas
- Carrots
- Sweet potatoes
- Spinach
- Yellow squash
- Broccoli
- Beets
- Green beans
- Onions
- Potatoes
- Lettuce
- Zucchini



Stage 2: Plant Cultivation

Participants worked alongside the horticulture coordinator daily in the greenhouse to plant and cultivate the seedlings.

Heated propagation mats (“Agri-Tape”®) were used to expedite seedling growth.



Stage 3: Construction of Raised Planters

Grant funding used to purchase materials to build and fill two raised planting beds

In-kind contribution by Schenectady ARC to construct planting beds and instruct participants in planting, growing and harvesting vegetables

Planters located alongside a concrete walkway to accommodate 75 participants with physical disabilities



Stage 4: Transfer of Vegetable Seedlings

Maturing plants were transferred to the four raised planting beds.



Stage 5: Cultivation of Vegetable Plants

Participants watered and pruned the vegetable plants



Stage 6: Healthy Meal Preparation Training

Nutrition educators from Cornell Cooperative Extension of Schenectady County conducted a six-week program entitled “Eat Smart New York” at four SARC group homes and an adult day program

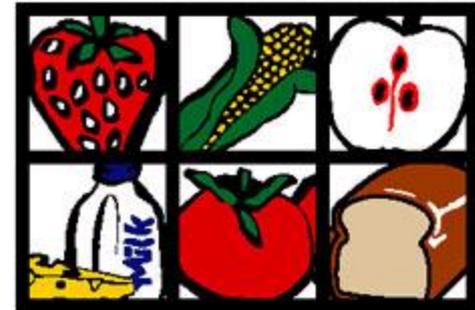
Funded completely through the USDA’s Food and Nutrition Service

Taught 28 participants and 12 staff about healthy meal preparation practices and how to incorporate vegetables into daily meals and snacks



Cornell University
Cooperative Extension

Eat Smart New York!



ESNY

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Stage 7: Plant Harvesting and Distribution

From late summer to early fall, participants harvested approximately 500 vegetables from the outdoor raised planters

Vegetables were collated into plastic baggies, each containing a pertinent vegetable-based recipe

Distributed to participating consumers, group homes and family home settings



Program Outcomes

- 70 participants planted and cultivated 15 different types of vegetable plants
- Improvement in recognizing 10 of the 15 vegetable types grown
- 28 SARC participants attended weekly CCESC healthy cooking classes
- Consumption of fruits and vegetables increased from 2.3 to 3.3 cups per day
- 56% showed improvement in one or more nutrition practices
- 25 individuals participated in harvesting approximately 500 vegetables
- At least 80 participants received fresh produce from the garden
- Over 30 meals were prepared using fresh produce from the garden

Questions?

For more information about the Health and Disability Project:

<http://www.naccho.org/topics/HPDP/healthdisa>

- **Glynnis Hunt**, Schenectady County Public Health, glynnis.hunt@schenectadycounty.com
- **Mark C. Sheehan**, Schenectady ARC, marks@arcschenectady.org
- **Sarah Yates**, NACCHO syates@naccho.org



Want to Learn More?

Join NACCHO and The Arc of the United States for a webinar on June 25:

Wellness for Every Body:

Training for Staff Who Support Individuals with Intellectual and Developmental Disabilities

June 25, 2013 2-3 PM Eastern

To address the issue of obesity in people with disabilities, Hennepin County Human Services and Public Health Department developed Wellness for Every Body (WFEB), an online training program for direct service providers. WFEB uses an environmental approach that targets adult care homes for intervention and creates conditions that establish healthy living as the norm. In 2013, Wellness for Every Body was recognized as a Promising Practice by the National Association of County and City Health Officials (NACCHO) Model and Promising Practices Program. Join NACCHO and Hennepin County Public Health to learn about this program and how you can use it in your jurisdiction.

<https://cc.readytalk.com/r/clq7g5xlap5l>

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Want to Learn More?

Join NACCHO's Health and Disability Project at NACCHO Annual for:

Disparities Data: Improving the Health of People with Disabilities

An estimated 54 million Americans living with disabilities are at an increased risk for secondary health conditions (e.g., obesity and diabetes). Between June 2011 and May 2012, NACCHO's Health and Disability Project supported four local health departments to increase their knowledge of the health status of people with disabilities in their jurisdiction and to implement interventions to improve health outcomes for this population. This presentation will show how the four local health departments used data to influence programmatic policy change in their jurisdictions to improve health outcomes for people with disabilities.

NACCHO Annual 2013

Public Health by the Numbers. Our Story. Our Time. Our Future.

July 10 – 12 | Dallas, TX | www.nacchoannual.org

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