COLUMBIA COUNTY COMMUNITY HEALTH ASSESSMENT AND COMMUNITY HEALTH IMPROVEMENT PLAN, 2014-2017

COVER SHEET

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Contact Information: Angella Timothy, RN, MPA, Public Health Director
Phone: (518) 828-3358; Email: Angella.Timothy@columbiacountyny.com
Address: Columbia County Department of Health, 325 Columbia St., Ste. 100, Hudson, NY 12534

Priorities: Chronic Disease Prevention (obesity focus; tobacco focus); Mental Health Promotion and Substance Abuse Prevention (prescription drug abuse focus); Arthropod-Borne Illness Prevention; Occupational Injury Prevention

Health Disparities: *Chronic Disease Prevention:* Students of the Hudson City School District have higher rates of overweight and obesity (compared to other school districts) (the same area has high rates of poverty, higher rates of hospitalization and emergency department visits for many chronic diseases, and the City of Hudson has the largest percentage of minority populations compared to other localities in the county). *Mental Health Promotion and Substance Abuse Prevention:* Hospitalization rate for mental illness is higher for the Greater Hudson Area compared to other areas in the county.

Community Health Improvement Plan Strategies: *Chronic Disease Prevention - Obesity focus:* School-based component: work with schools to implement physical activity into the school day; Community-based components: collaborate with employers to promote breastfeeding; work with schools to implement joint use agreements to encourage and support physical activity among community members; promote Eat Smart NY; implement the Healthy Mondays program; and promote preventive health screenings among community members. *Tobacco focus:* Work with community partners to decrease tobacco use among community members. *Mental Health Promotion and Substance Abuse Prevention:* Decrease and prevent prescription drug abuse among Hudson High School students by using health survey analyses to strategically implement improvement interventions; prevent prescription drug abuse by providing community-wide education and education in public schools; continue the work of the Columbia-Greene Controlled Substance Task Force. *Arthropod-Borne Illness Prevention:* Install signage in community and conduct outreach and education. *Occupational Injury Prevention:* Conduct education to workplaces.

Tracking Measures: *Chronic Disease Prevention:* Amount of increase (minutes) of physical activity during the school day, change in the wellness policies, BMI of students, behavior change; number of agencies with joint use agreements, number of businesses implementing breastfeeding polices, number or organizations implementing Healthy Mondays; obesity rate of community, amount of physical activity of community members. *Mental Health Promotion and Substance Abuse Prevention:* Survey results of repeat surveys of Hudson High School students, revealing data on prescription drug abuse. *Arthropod-Borne Illness Prevention:* Number of outreach and educational activities; rates of arthropod-borne illnesses. *Occupational Injury Prevention:* Number of educational and outreach activities; rates of occupational injuries.

Partners/Collaborators: Columbia Co. Department of Health, Catholic Charities of Columbia and Greene Counties, Coarc (including Coarc – The Starting Place), Columbia Co. Board of Supervisors, Columbia Co. Community Healthcare Consortium, Columbia Co. Department of Human Services, Columbia Co. Public Health Leadership Team, Columbia County public school districts, Columbia Memorial Hospital, Cornell Cooperative Extension of Columbia and Greene Counties, Greater Hudson Promise Neighborhood, Greene Co. Public Health Nursing Services, Healthy Capital District Initiative, Healthy Schools New York, New York State Department of Health, Twin County Recovery Services, Inc., community volunteers, Columbia Co. MAPP Team (See Attachment 1 for names, organizations)

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*(*NYSDOH SPARCS; provided by Healthy Capital District Initiative in 2013 with technical support

from the Finger Lakes Health System Agency)

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Executive Summary

The Columbia County Department of Health (CCDOH) is deeply committed to the health, safety, and well-being of the community. CCDOH works collaboratively with community partners to monitor the health status of populations, identify health problems, and make vital community health improvements. To accomplish these activities, CCDOH regularly coordinates a Community Health Assessment (CHA), the results of which are used to develop a Community Health Improvement Plan (CHIP). This CHA/CHIP for 2014-2017 summarizes Columbia County demographic and health data from a variety of sources and presents a community plan for making measurable improvements in health priority areas: **Chronic Disease Prevention, Mental Health Promotion and Substance Abuse Prevention, Arthropod-Borne Illness Prevention, and Occupational Injury Prevention.**

Disease rates and indicators of poor health outcomes among Columbia County residents are worse than New York State's rates in many areas. For example, the county's emergency department visit rate is higher than the state's, suggesting that many community residents do not have a regular source of health care. The age-adjusted total mortality rate for the county is higher than that for the state. Rates of preventive health screenings for some chronic disease are lower in Columbia County than those of the state.

Our CHIP prioritized the priority areas listed above because they were identified and highlighted as priority areas in the CHA. They are the areas in which the greatest health improvement impacts can be realized relative to the current health status of Columbia County residents.

In the area of chronic disease, several examples of poor health outcomes among community members follow. There are high rates of obesity (pediatric and adult). There are also high rates of heart disease, stroke, chronic lower respiratory disease/chronic obstructive pulmonary disease, and lung cancer. Many of these diseases can be prevented through health behaviors such as physical activity, eating a healthy diet, abstaining from tobacco use and substance abuse, and by early preventive screenings.

Within the Chronic Disease Prevention priority area of the CHIP, one focus is obesity prevention among children and adults. Obesity, considered a chronic disease, is a significant risk factor for other chronic diseases and conditions, including high blood pressure, type 2 diabetes, asthma, high cholesterol, stroke, heart disease, certain types of cancer, and osteoarthritis. Overweight and obesity may also contribute to psychological distress, depression, discrimination, and prejudice. A high percentage (57.5%) of adults in Columbia County are either overweight or obese (New York State: 60.6%), and 22.4% of adults in the county are obese (New York State: 24.3%). Of Columbia County public school district students, 37.1% are overweight or obese (New York State percentage: 33.7%), and 19.1% are obese (New York State: 17.6%). Among Columbia County children, overweight and obesity rates vary by public school district. Hudson City School district has the highest percentage of students who are either overweight or obese.

The CHIP activities for obesity prevention focus on physical activity and healthy eating habits because of the important role that these lifestyle factors have on preventing and managing chronic diseases. Also included are activities to promote breastfeeding, as research has correlated lower rates of obesity among mothers who breastfeed and children who were breastfed as infants. There will be two main components to the improvement activities for obesity prevention: a school-based component and community components.

The school-based component will entail working with schools to implement physical activity into the school day and helping schools to adopt policies which call for daily physical activity among all students. Actions to decrease the high obesity rates among children were included in the plan because instilling healthy habits in children is prevention at its best. Including children in efforts to increase physical activity will result in generating maximum impact on health status and can bring about positive health outcomes for generations.

The community-based components for obesity prevention will include: collaborating with employers to promote breastfeeding policies and accommodations; helping schools to implement joint use agreements to encourage and support physical activity among community members; promoting Eat Smart NY to encourage healthy eating behaviors; implementing the "Healthy Mondays" program; and working with Columbia Memorial Hospital to promote preventive health screenings among community members.

The other focus of the Chronic Disease Prevention priority area of the CHIP is preventing and decreasing tobacco use among community members. Cigarette smoking is directly linked to lung cancer, as well as to other respiratory diseases. A large percentage (23.1%) of Columbia County adults smokes cigarettes (New York State: 16.8%). In Columbia County, the lung cancer rate for males (102.9 per 100,000 persons) is much higher than the state's rate for males (84.3 per 100,000). The county's lung cancer rate for females (63.8 per 100,000) is also high (New York State: 64.5 per 100,000).

Mental health issues and substance abuse are prevalent in the county. Problem areas of note are prescription and other drug abuse, alcohol abuse, binge drinking, underage drinking, alcohol-related motor vehicle injuries and deaths, suicide, mental disorders such as depression and anxiety, co-occurring disorders, self-inflicted injury, stigma, difficulty accessing mental health services and substance abuse services, and scarcity of preventive services.

Within the Mental Health Promotion and Substance Abuse Prevention priority area of the CHIP, the focus is prescription drug abuse prevention. It has been identified as a major problem in Columbia County and also a growing problem nationwide. In 2012, 14.8% of high school seniors nationwide reported using prescription drugs for nonmedical purposes. Prescription drugs are often easily accessible to adolescents, and abuse of those drugs can lead to severe health consequences and even death. The first focus area of the community health improvement efforts will be prescription drug abuse prevention among adolescents. This will entail utilizing health survey analyses to strategically implement improvement and prevention interventions in the Hudson City School District, as well as implementing preventive initiatives in other public school districts in the county. The efforts will also include community-wide media campaigns, education to medical providers, education to parents and community members, and information dissemination to health and human service organizations. The second focus area will be to continue the work of the Columbia-Greene Controlled Substance Task Force, which aims to decrease and prevent prescription drug abuse in the two counties through focusing on practice guidance for prescribers, community prevention, and linkages to treatment.

Arthropod-Borne Illness Prevention is another community health priority. The county's Lyme disease rate is much higher than that of most New York counties. Between 2008 and 2010, Columbia County had a Lyme disease rate of 824.8 per 100,000 persons, which as much higher than the New York State rate of 66.2 per 100,000. Related health concerns are the increasing cases of other arthropod-borne illnesses such as Ehrlichia,

Babesia, and Anaplasma. Prevention methods employed for Lyme disease can also be utilized to prevent other arthropod-borne illnesses. Community health improvement strategies will focus on increasing community signage, conducting education and community outreach, and monitoring arthropod-borne illness rates.

The county's occupational injury rates are higher than those of the state. Workers age 16 and over in Columbia County have an occupational-related hospitalization rate of 37.7 per 10,000 persons (NYS: 19.7 per 10,000). Workers age 15 to 19 in the county have a rate of occupational injuries treated in the emergency department of 73.6 per 10,000 (NYS rate: 36.7 per 10,000). Community health improvement strategies to prevent occupational injuries will focus on working with employers to increase awareness of the high occupational injury rates and educate employers on proper employee training and safety methods.

Aside from health issues in the priority areas, the county experiences other health concerns. There is a high infant mortality rate and a high percentage of pregnant women with late or no prenatal care. Other community issues include lead exposure, low immunization rates for some diseases, motor-vehicle related injuries, lack of a medical home for some individuals, unemployment, shortage of affordable housing, economic instability, and lack of widely-available public transportation.

Although the county experiences these problem areas, there are areas in which the county is doing well. For example, there is a low violent crime index, and compared to the state, the county has a lower breast cancer mortality, lower diabetes hospitalization rate, lower diabetes mortality, lower teen pregnancy rate, and lower rates of many sexually transmitted diseases.

Columbia Memorial Hospital has been an important partner as both of our agencies are working collaboratively to address the health needs of Columbia County residents in the hospital's Community Services Plan and in CCDOH's CHIP. Numerous other agencies and individuals have also contributed their expertise, time, and passion to this planning process, and they will continue to be invaluable partners in developing and implementing community health improvement activities, and in evaluating and measuring community health improvement outcomes. Various other community and regional agencies are also equipped and experienced to tackle Columbia County's health issues. Agencies such as those in the local public health system and those listed in Attachment 2: 2013 Columbia-Greene Interagency Yellow Pages have been, and will continue to, strategically address community health concerns and work to prevent of disease. Collaboration and team work will be necessary in tackling health improvement activities.

Thank you for taking the time to review this Community Health Assessment and Community Health Improvement Plan. This plan will form the foundation of many community health improvement activities, helping Columbia County to be a healthier, safer place to live, work, learn, and play. The Columbia County Department of Health and partners welcome your questions, suggestions, and participation in the improvement process; please contact us at (518) 828-3358 or ccdoh@columbiacountyny.com.

Credits

Community Health Assessment and Community Health Improvement Plan (2014-2017) Authors:
Katie Scheu Morelli, MPH, Public Health Educator, Columbia County Department of Health
Angella Timothy, RN, MPA, Public Health Director, Columbia County Department of Health
Kelly Sackett, MPH, Intern, Columbia County Department of Health

Attachment 1: Columbia County CHIP (2012-2016)/"MAPP for Our Future" Authors:
Bonnie Westendorf, former Consultant, Columbia County Department of Health
Nancy Winch, RN, MA, former Public Health Director, Columbia County Department of Health

Partners/Collaborators:
Columbia County Department of Health
Catholic Charities of Columbia and Greene Counties
Columbia County Board of Supervisors
Columbia County Community Healthcare Consortium
Columbia County Department of Human Services
Columbia County MAPP Team
Columbia County Public Health Leadership Team
Columbia County public school districts
Columbia Memorial Hospital
Cornell Cooperative Extension of Columbia and Greene Counties
Greater Hudson Promise Neighborhood
Greene County Public Health Nursing Services
Healthy Capital District Initiative
Healthy Schools New York
New York State Department of Health
Twin County Recovery Services, Inc.
Community volunteers (Nancy Winch, Jane Miller)

Thank you to those who contributed their expertise, time, and passion to planning for a healthier Columbia County! Our sincere apologies to anyone we inadvertently left out of the credits.

Part I: Introduction

The Columbia County Department of Health

The Columbia County Department of Health (CCDOH), the county's local health department, is dedicated to the protection and promotion of the health of the residents of Columbia County through prevention of disease, use of science, and the assurance of quality health care.

Figure 1: CCDOH is located at the Columbia County Human Services Building, 325 Columbia St., Hudson, NY

CCDOH is mandated by the State of New York, derives public health authority through State public health law, and is governed by the county Board of Health. CCDOH is led by the Public Health Director who is responsible for safeguarding the public's health. A Medical Director, Board of Health, Health Committee (of the County Board of Supervisors), Professional Advisory Committee, and multiple task force committees provide administrative guidance and consultation to CCDOH.

Dedicated, skilled professionals fulfill the CCDOH mission: to protect, preserve, and promote the health of the people of Columbia County. They provide a wide array of services to community members of all backgrounds through the following programs: Administration, Certified Home Healthcare Agency, Early Intervention and Preschool Services, Environmental Health, Maternal Child Health, Communicable Disease, Immunization, Migrant Health, Public Health Preparedness, and Public Health Education (Table 1).

Table 1: Columbia County Department of Health programs, activities, and services

Program	Activities and Services
Administration	Personnel issues, budgets, billing, contracts, grants, and financial matters.
Certified Home Healthcare Agency	Short-term, intermittent home care services: skilled nursing; physical, occupational, and speech therapy; aide services with a skilled service; medical social worker.
Early Intervention and Preschool Services	Early Intervention: Services to infants and toddlers under the age of three with developmental delays; Preschool: Services to eligible three to five year olds with developmental delays. Services include: speech, occupational and physical therapies, special education, counseling, and more.
Environmental Health	Regulatory programs in accordance with the NYS Sanitary Code and other regulations; emergency on-call services; food service establishments; Adolescent Tobacco Use Prevention; beaches and pools; Clean In-Door Air Act; children's camps; campgrounds; festivals and mass gatherings; childhood lead poisoning prevention; DEC programs and hazardous spill response; temporary residences; rabies clinics and responses; migrant housing; mobile home parks; public water; realty and private subdivisions; individual on-lot sewage development; and more
Maternal Child Health	Home visits to help new mothers and families; education; breastfeeding information; Nurse Navigator Program based at Catskill Women's Health; Physically Handicapped Children's Program; Children with Special Healthcare Needs program; Child passenger safety education and car seat installations; lead poisoning prevention.

Public Health (Communicable Disease, Immunization, Migrant Health, and Public Health Preparedness)	Communicable Disease: Investigation and reporting of disease outbreaks according to Public Health Law; patient education; directly observed therapy for patients with tuberculosis. STD Clinic: (Free, confidential, no appointment needed) Every Tuesday from 4:30-5:30 PM; STD testing, treatment, and counseling; HIV testing, counseling. Immunization: Outreach clinics and education in the community to promote vaccination; In-office immunization clinic: (By appointment) Tuesday from 1:00-3:30 PM; and every third Wednesday of the month from 4:00-6:00 PM; many types of vaccines offered. Migrant Health: Services for seasonal farm workers and their families (in Columbia, Greene, Rensselaer, and Dutchess Counties); Spanish speaking community outreach worker; screening for blood pressure, diabetes, sexually transmitted diseases, and tuberculosis; immunizations; education; transportation to medical appointments and interpretation. Public Health Preparedness: Emergency planning, response, education.
Public Health Education	Collaboration with partners on healthy policies, systems, and environments; Community Health Assessment/Improvement Plan; workshops, campaigns, and outreach events focused on prevention and health (Figure 2).

Figure 2: An example of CCDOH's community outreach: the Columbia County Fair booth, 2013
(shared with Columbia County Mental Health Clinic/Columbia County Department of Human Services)

CCDOH, through its programs and services and in collaboration with community partners, fulfills the three core functions of public health: assessment, policy development, and assurance, and the ten essential services of public health (Figure 3):

1. Monitor health status to identify community health problems.
2. Diagnose and investigate health problems and health hazards in the community.
3. Inform, educate, and empower people about health issues.
4. Mobilize community partnerships to identify and solve health problems.
5. Develop policies and plans that support individual and community health efforts.
6. Enforce laws and regulations that protect health and ensure safety.
7. Link people to needed personal health services and assure the provision of health care when otherwise unavailable.
8. Assure a competent public health and personal health care workforce.

9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services.
10. Research for new insights and innovative solutions to health problems.

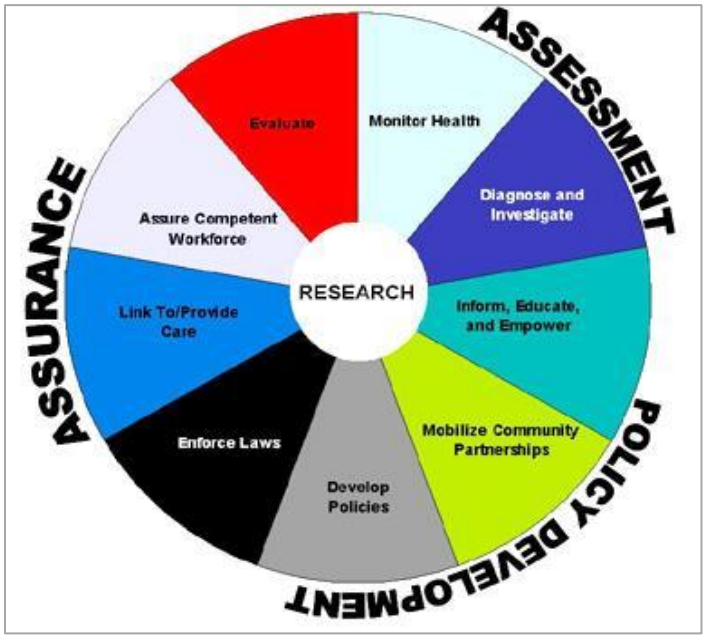

Figure 3: Core functions (in black lettering) and essential services (colored pieces of the circle) of Public Health (National Center for Environmental Health, 2011)

Overview of the Community Health Assessment and Community Health Improvement Plan

New York State Department of Health (NYSDOH) requires local health departments to coordinate and submit a Community Health Assessment (CHA) every three years (according to Article 6 and article 28 of state Public Health Law). The Community Health Improvement Plan (CHIP) is a new mandate of NYSDOH. The purposes of this CHA and CHIP for 2014-2017 are to: assess county health data and present a community plan for making measureable improvements in health priority areas by 2017. The priority areas include **Chronic Disease Prevention, Mental Health Promotion and Substance Abuse Prevention, Arthropod-Borne Illness Prevention, and Occupational Injury Prevention.** An interagency collaborative process guided the development of the CHA and CHIP. Columbia Memorial Hospital has been an important partner as its personnel complete the mandated Community Services Plan (required by the federal Affordable Care Act). Other valuable partners in the CHA/CHIP process are listed on page 7 and also in Attachment 1: Columbia County CHIP (2012-2016)/"MAPP for Our Future."

The foundation for the following Columbia County CHIP was a process called MAPP (Mobilizing for Action through Planning and Partnerships), which took place locally between 2010 and 2012. MAPP was a strategic, multi-agency, community-driven process (involving over 80 community partners), coordinated by CCDOH. It enabled participants to develop community-wide goals for public health improvement.

MAPP Team members developed a vision for a healthy community:

> "A healthy community is clean, safe, and has ready access to health care and all needed human services. Community awareness, diversity, and development are strengthened through knowledgeable, engaged, and nurturing involvement by many citizens and leaders who value our population and usable resources, and support physical, mental, social, intellectual, and spiritual well-being. A healthy community has a strong Public Health System that includes: planning and policy development, shared leadership among many community partners, effective responses to challenges, assessment and accountability, and which protects and promotes the health of residents of all ages and the natural and community environments."

The team also identified the following community values:

> "To have a safe community committed to allocating needed resources to create a safe environment where individuals feel no fear or threat to their personal well-being. This is a community where there is respect for the environment in recognition of the connection between environmental health, mental health, and physical health.
>
> To have a knowledgeable and engaged community where education is valued as part of the decision-making process and that building a sense of community is a daily activity.
>
> To have a nurturing, diverse, and tolerant community where children are valued and nurtured through strong family and community support. This is a community where understanding and respect of cultural differences enhances the community and each resident has the opportunity to live their life to the fullest with equal opportunity for all.
>
> To have a community where access to health care is a top priority. This is a community where quality health care is accessible to all residents, including the indigent and underserved, and is not taken for granted, but is valued with a focus on prevention and respect for our bodies."

There were four main assessments in MAPP: Community Themes and Strengths, Local Public Health System, Community Health Status, and Forces of Change. Five community priorities were identified: Chronic Disease Prevention and Management; Mental Health and Substance Abuses; Community Partnerships; Access to Quality Primary Care; and Workforce Development in the Health Care System. The final document of the MAPP process (the Community Health Improvement Plan for 2012-2016/"MAPP for Our Future"), which was published in mid-2012, is located in Attachment 1.

In the latter part of 2012, NYSDOH released a new requirement for 2014-2017: a Community Health Improvement Plan, along with the Community Health Assessment. Thus, following the MAPP process, in the winter of 2012, the Columbia County Public Health Leadership Team resumed MAPP at the "Action Phase," revisiting and revising the priorities, goals, and objectives, and planning health improvement goals for 2014-2017 (The Columbia County Public Health Leadership Team, the formation of which was a recommendation of the MAPP process, is a cross-system collaborative which prioritizes health issues through comprehensive planning and provides oversight in the implementation and evaluation of identified public health improvement activities endorsed to improve the quality of life for residents in Columbia County).

The following CHA and CHIP for 2014-2017 will present data on local health issues and a plan for meeting goals and objectives in health priority areas. Two of the health priorities, Chronic Disease Prevention and Mental Health Promotion and Substance Abuse Prevention, are shared by Columbia Memorial Hospital (the local hospital), Greene County, and the New York State Prevention Agenda (the other NYS Prevention Agenda priorities are: promote a healthy and safe environment; promote healthy women, infants, and children; and prevent HIV, STDs, vaccine preventable diseases and health care associated infections).* While identifying goals and evidenced-based interventions for Columbia County, helpful guides included the New York State Prevention Agenda for 2013-2017 (also known as the New York State Health Improvement Plan), NYSDOH public health professionals, and Healthy People 2020.

Members of the local public health system in the county will work together as a team to meet the priority area goals. According to NYSDOH, the local public health system includes much more than the local health department. The local public health system and the relationship between that system and governmental public health agencies can be described as:

> "There is a public health system in each community defined as the wide range of public, private and voluntary organizations such as governmental agencies, academia, health care providers, hospitals, community-based organizations, associations, businesses, and individuals. The unique function of governmental public health agencies within this broad infrastructure framework is to see that all vital system elements are in place; that all core functions and essential services are coordinated; and that the mission of improving the health of the community is adequately addressed, using if necessary, the regulatory powers of the state." -Kristine Gebbie, Dr. PH, RN, member of the Public Health Infrastructure Work Group, New York State

**More information about the New York State Prevention Agenda can be obtained from: http://www.health.ny.gov/prevention/prevention_agenda/2013-2017/*

Part II: Columbia County Community Health Assessment

The Community Health Assessment (CHA) and Community Health Improvement Plan (2014-2017) Process

The process for choosing the health priorities in Columbia County entailed analyzing the demographic and health data of the county from a variety of sources, conducting the strategic MAPP process with community partners, and comparing local priorities with those of the New York State Prevention Agenda. The health assessment drew data from a wide range of sources, including the United States Census Bureau, NYSDOH, New York State Behavioral Risk Factor Surveillance System (BRFSS), Healthy Capital District Initiative, the Kids Wellness Quality Indicators, New York State Community Action Association, and the New York State Office of Alcoholism and Substance Abuse Services, among other sources. The four main MAPP assessments, involving many community partners, also revealed important issues relating to health and well-being in the community.

The decision makers for the goals and objectives of the 2014-2017 CHA and CHIP are a part of the Columbia County Public Health Leadership Team (of which most members were also active in the MAPP process during 2010-2012). Leadership Team members represent a broad range of agencies, including: Columbia County Department of Health, Columbia Memorial Hospital, Columbia County Board of Supervisors, Columbia County Department of Human Services, Catholic Charities of Columbia and Greene Counties, Twin County Recovery Services, Inc., Columbia County Community Healthcare Consortium, and community volunteers. The decision making process was inclusive, encouraging and allowing team members to contribute their knowledge and expertise, and also to involve others from their home agency in brainstorming and research (for example, when the team broke down into priority area work groups).

The roles of community partners in the CHA and CHIP are outlined in Table 2.

Table 2: Roles of community partners in the Community Health Assessment and Community Health Improvement Plan

Community Partner	Roles
Columbia County Department of Health	Coordinator of MAPP process; CHA/CHIP development and implementation; and Public Health Leadership Team; on the Chronic Disease Work Group
Coarc (Coarc – The Starting Place)	Participating in the physical activity initiative for obesity prevention
Columbia Memorial Hospital	Member, MAPP Team; Member, Public Health Leadership Team; coordinator, Community Services Plan; on the Chronic Disease Work Group
Catholic Charities of Columbia and Greene Counties	Member, MAPP Team; Member, Public Health Leadership Team
Columbia County Board of Supervisors	Member, MAPP Team; Member, Public Health Leadership Team
Columbia County Community Healthcare Consortium	Member, MAPP Team; Member, Public Health Leadership Team; on the Mental Health and Substance Abuse Work Group; on the Chronic Disease Work Group
Columbia County Department of Human Services	Member, MAPP Team; Member, Public Health Leadership Team; on the Mental Health and Substance Abuse Work Group
Columbia County MAPP Steering Committee (see Attachment 1)	Oversaw and conducted the MAPP process
Cornell Cooperative Extension of Columbia and Greene Counties	Member, MAPP Team; Conducting the Eat Smart New York and Families Grow Together Programs, focusing on healthy eating and physical activity
Greater Hudson Promise Neighborhood	A grant program that focuses on children's well-being and success in the Hudson City School District from birth through career, this program will be participating in projects under the priority areas Chronic Disease Prevention and Mental Health Promotion and Substance Abuse Prevention
Greene County Public Health	Contributed to Public Health Leadership Team meetings and planning
Healthy Capital District Initiative	Contributed to planning and development, data analysis, consultation
Healthy Schools New York	A grant program that focuses on healthy policies in schools to address physical activity and healthy eating, this program will be participating in the chronic disease/obesity focus area project
Hudson City School District	Participating in Substance Abuse Prevention initiatives; may also participate in Chronic Disease Prevention initiatives
NYS Department of Health	Contributed to planning, data analysis, consultation, and provided ideas for evidence-based interventions
Other Columbia County public school districts	Participating in Substance Abuse Prevention initiatives; may also participate in Chronic Disease Prevention initiatives
Twin County Recovery Services, Inc.	Member, MAPP Team; Member, Public Health Leadership Team; on the Mental Health and Substance Abuse Work Group
Community Volunteers	Member, MAPP Team; Member, Public Health Leadership Team; on the Chronic Disease Work Group
Columbia County Office for the Aging	Member, MAPP Team; Member, Public Health Leadership Team
Public Health Leadership Team	Conducted assessments, prioritization, and planning

Chronic Disease Work Group	Conducted research and planning for chronic disease
Mental Health and Substance Abuse Work Group	Conducted research and planning for mental health and substance abuse

Table 3 displays the rationale for choosing the priorities and also some health disparities within the priority areas. Health disparities are differences in the quality of health and health care among different groups of people.

Table 3: Broad health priorities of the CHA and CHIP, rationale for choosing priorities, and health disparities in the priority area

Broad Health Priority	Rationale for Choosing Health Priorities			Examples of Health Disparities within the Priority Area
	Community Health Issues	Agencies/Programs Working in the Health Priority Areas	Result of Columbia County MAPP Analyses	
Chronic Disease Prevention	*Important health problems in the county:* Pediatric and adult obesity Physical activity behavior Healthy eating behavior Cardiovascular disease High blood pressure Stroke Lung cancer Chronic lower respiratory disease, chronic obstructive pulmonary disease Tobacco use Diabetes Preventive health screenings	CCDOH, Columbia Memorial Hospital, Columbia County Community Healthcare Consortium, Cornell Cooperative Extension of Columbia and Greene Counties, Greater Hudson Promise Neighborhood, Healthy Schools NY, WIC, Greene County Public Health, NYSDOH	Identified as a priority in the MAPP process via the community assessments	*Several Disparities:* Students of the Hudson City School District have higher rates of overweight and obesity (compared to other school districts); Heart disease mortality rate is higher in the Greater Hudson Area and higher for Blacks; Heart disease hospitalization rate is higher for Blacks; Lung cancer is higher among males; COPD/CLRD rates are highest in the Greater Hudson Area
Mental Health Promotion and Substance Abuse Prevention	Important health problems in the county: Prescription drug abuse Alcohol use Mental well-being Suicide Access to services Co-morbidities	CCDOH, Columbia Memorial Hospital, Columbia County Department of Human Services, Catholic Charities of Columbia and Greene Counties, Twin County Recovery Services, Inc., Columbia-Greene Suicide Prevention Task Force, Columbia-Greene Controlled Substance Task Force, Greater Hudson Promise Neighborhood, Greene County Public Health, NYSDOH	Identified as a priority in the MAPP process via the community assessments	*Several Disparities:* Hospitalization rate for mental disease is higher for the Greater Hudson Area compared to other areas in the county; Self-inflicted injury rate is higher for the Greater Hudson Area; Suicide mortality rate is higher for Whites; More males are in treatment for prescription drug abuse compared to females
Arthropod-Borne Illness Prevention	Lyme disease Babesiosis Other arthropod-borne illnesses	CCDOH, Columbia Memorial Hospital, Lyme Disease Task Force		
Occupational	Work-related hospitalizations for	CCDOH, selected		

Injury Prevention	individuals 16 years of age and older Occupational injuries treated in the emergency department (ages 15-19)	employers		

There were some limitations to the assessment. There is a scarcity of local data on substance abuse; for instance, there is a shortage of local data of prescription drug abuse among those who are not already in treatment for substance abuse. There is also a shortage of national data on teen prescription drug abuse. There is a scarcity of local data on mental health issues.

Overview of Columbia County: "Find out where the best country roads in America take you"[+]

The best country roads will take you to beautiful Columbia County, a mainly rural county located in the northeastern region of the Mid-Hudson Valley in upstate New York. The county is bordered on the north by Rensselaer County in the Capital District, on the south by Dutchess County, on the east by Berkshire County of Massachusetts, and on the west by the Hudson River, opposite Greene County. A weekend or summer home to many, especially New York City residents, it is less than 150 miles north of the major metropolitan area of New York City, and less than 50 miles south of Albany and New York's Capital District. The county is easily accessible by the New York State Thruway and rail, bus, and air lines. [+]*quote from Columbia County Tourism*

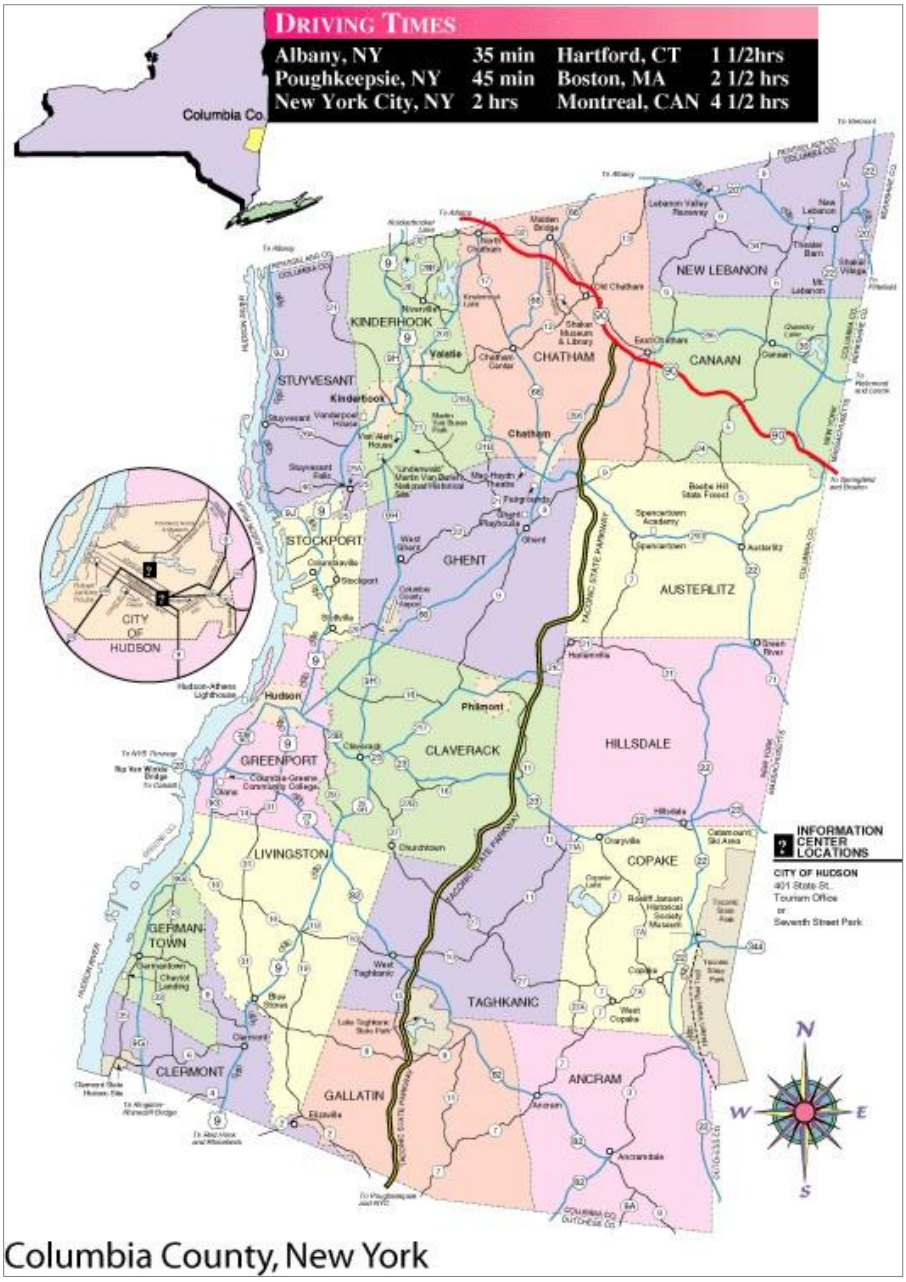

Figure 4: Map of Columbia County list of driving times to nearby large cities (AAA Hudson Valley)

With a total area of approximately 635 square miles, the county includes the City of Hudson, 18 towns (Ancram, Austerlitz, Canaan, Chatham, Claverack, Clermont, Copake, Gallatin, Germantown, Ghent, Greenport, Hillsdale, Kinderhook, Livingston, New Lebanon, Stockport, Stuyvesant, and Taghkanic), and four villages: Chatham, Valatie, Kinderhook, and Philmont. The county is governed by the Board of Supervisors, which is led by the Chairman of the Board of Supervisors.

Founded in 1786, the county has a rich history and culture. The first exploration of the area now known as Columbia County was probably that of Hendrick Hudson, whose ship *the Half Moon* ran aground near the current City of Hudson in 1609 (Columbia County Historical Society, 2003). The native inhabitants of the region were the Mohican Indians. By an act passed on March 24, 1772 the region now known as Columbia County was divided and designated into various districts from a portion of Albany County. The City of Hudson was incorporated April 22, 1785 (Columbia County website). The county has a history of whale oil processing, international trade, river trade, agriculture, cement industry, and brick production (Columbia County Historical Society, 2003).

Columbia County offers a wide array of historical landmarks, sites of architectural heritage, recreational opportunities, and parks and preserves. The county is home to the President Martin Van Buren National Historic Site; the 1737 Luykas Van Alen Dutch farm house; the Olana State Historic Site (Hudson River School painter Frederick Church's estate); the Clermont State Historic Site; the Firemen's Association of the State of New York Museum of Firefighting; the Shaker Museum and Library; and the Hudson Opera House, the oldest surviving theatre in the state (Figure 5).

Figure 5: The Hudson Opera House (League of Historic American Theatres)

The county hosts a myriad of theatres and performing arts venues, cultural festivals, a county fair, the Lebanon Valley Speedway and Dragway, restaurants, breweries, wineries, contemporary art galleries and antique galleries, and shops (Figure 6 – shops on Warren Street, Hudson). The natural environment offers a great escape – residents and visitors can enjoy the Hudson River and the historic Hudson Athens Lighthouse (Figure 7), state parks, hiking trails, skiing, golfing, community gardens, and views of the Catskill and Taconic Mountains.

Figures 6 and 7: Warren Street, Hudson, New York (Daniel Case, Wikimedia Commons); and View of the Hudson-Athens Lighthouse from the Henry Hudson Riverfront Park (Hudson Art Galleries)

With a mainly rural landscape, Columbia County has over 45 farms as well as farmers' markets. At many farms, people can pick their own produce, like apples, blueberries, strawberries, and pumpkins. Groups such as Columbia County Bounty place an emphasis on supporting local farms and buying local foods to help maintain a strong economy, preserve the environment, and encourage healthy eating. Also, there are many schools with vegetable gardens; those schools educate students about the importance of healthy eating and growing your own food. Many schools participate in School Partners in Gardening (SPIG), a collaborative which facilitates the sharing of gardening information and resources to enhance the education of children.

Figure 8: Columbia County Farm (Peggy Lampman)

The county offers economic opportunity and is home to many small, locally-owned businesses. The Columbia County Chamber of Commerce supports local business through networking and a "Buy Local" expo. Cornell Cooperative Extension of Columbia and Greene Counties also supports local businesses via networking opportunities and education. Some major employers in the county include Columbia County government, Columbia Memorial Hospital, Flanders Precisionaire air filter factory, Sonoco Plastics packaging company, and Ginsberg's food service distributor. The City of Hudson hosts the offices of "Etsy Hudson" for the Etsy social commerce website for handmade or vintage items.

There are six public school districts in Columbia County: Chatham Central, Germantown Central, Hudson City Schools, Ichabod Crane Central, New Lebanon Central, and Taconic Hills Central. There are also private schools, such as Hawthorne Valley Waldorf School, Darrow School, Columbia Christian Academy, Academy of Christian Leadership, and Mountain Road School. Questar III BOCES is also located in the county. Columbia-

Greene Community College, a two-year college which is a member of the State University of New York (SUNY) system, offers a rigorous nursing program as well as over 40 other degree and certificate programs. Special programs and opportunities to support youth in the county include the Greater Hudson Promise Neighborhood, Operation Unite, Family of Woodstock Child Care Council, Cornell Cooperative Extension, the Columbia County Backpack Program, the Hudson Teen Theatre Project, summer day and overnight camps (including Camp Sundown for children with severe sun sensitivity), and much more.

There is a wide range of health and human services agencies to support health and social well-being of individuals and families in Columbia and Greene Counties (Attachment 2: 2013 Columbia-Greene Interagency Yellow Pages). In 2013, the 2nd Columbia-Greene Interagency Awareness Day took place at Columbia-Greene Community College. The networking and educational event was planned *by* health and human service providers *for* health and human service providers, to raise awareness, foster collaboration, and improve upon the services provided to the residents of the twin counties. The Interagency Awareness Day Planning Committee plans to make the event every other year.

Community-based and regional organizations promote a healthy community with dignity, respect, and opportunities for all individuals. Some groups are the Hudson Pride Foundation, NAMI (an affiliate of the National Alliance on Mental Health), the AIDS Council of Northeastern New York, Camphill Association and Coarc (both support individuals with disabilities), the Veterans Association, the Women's Health Project of SUNY Albany, and food pantries, among others. Also important to the community are religious institutions; some religious affiliations of residents include Protestant Christian, Catholic, Jewish, Buddhist, and Muslim.

There is one hospital in the county, Columbia Memorial Hospital. It is a 192-bed acute care hospital focused on advanced surgery, primary care, and health education. It serves Columbia, Greene, and parts of northern Dutchess County. The hospital owns over 25 outlying primary and specialty care centers, and has 263 clinically affiliated providers. There are also care centers and providers in the county unaffiliated with the hospital. There are six long-term care facilities in the county, as well as adult day care and home care services.

Some emergency services in the county include the Sheriff's Department, Columbia County 911, the Emergency Management Office and Emergency Operations Center, Emergency Medical Services, hazardous materials response teams, local fire departments, a Fire Coordinator's Office, local police departments, and the Columbia County Department of Health Public Health Preparedness Program. The county has one jail, the Columbia County Jail; one prison, the Hudson Correctional Facility; a secure center for youth, the Brookwood Secure Center; and a secure center for girls, the Columbia County Girls Secure Center.

Columbia County shares a unique relationship with Greene County. The two counties, linked across the Hudson River, share many similarities and yet each maintains their own distinct character. Many organizations and services are shared between the two counties, such as Columbia Memorial Hospital, Columbia-Greene Community College, Catholic Charities, the Columbia County Community Healthcare Consortium, the Columbia-Greene Humane Society, Twin County Recovery Services, Inc., and many other human service agencies. Because of the proximity, small population, and shared resources, many of these agencies work closely together to the benefit of both communities. Residents of each travel between the two counties for

services, employment, and recreation. Both counties are popular tourist destinations for many in the New York metropolitan area.

The People of Columbia County

As of 2012, approximately 62,499 people call the county home. There are approximately 99 persons per square mile. There are slightly more males (51.2%) than females (49.8%) (Table 4).

Table 4: Population statistics, Columbia County, New York State (United States Census Bureau, State & County Quick Facts)

Population	Columbia County	NYS
Population, 2012 estimate	62,499	19,570,261
Population, 2010 (April 1) estimates base	63,096	19,378,104
Population, percent change, April 1, 2010 to July 1, 2012	-0.9	1.0
Female persons, percent, 2011	49.8	51.5

Age

Columbia County has a high percentage of people age 65 and older (18.2%, compared to the state percentage of 13.5%), and of people age 85 and older (2.5% compared to the state percentage of 2.0%) (Figure 9). The county's median age of 45.3 is higher than the state's median age of 38.0.

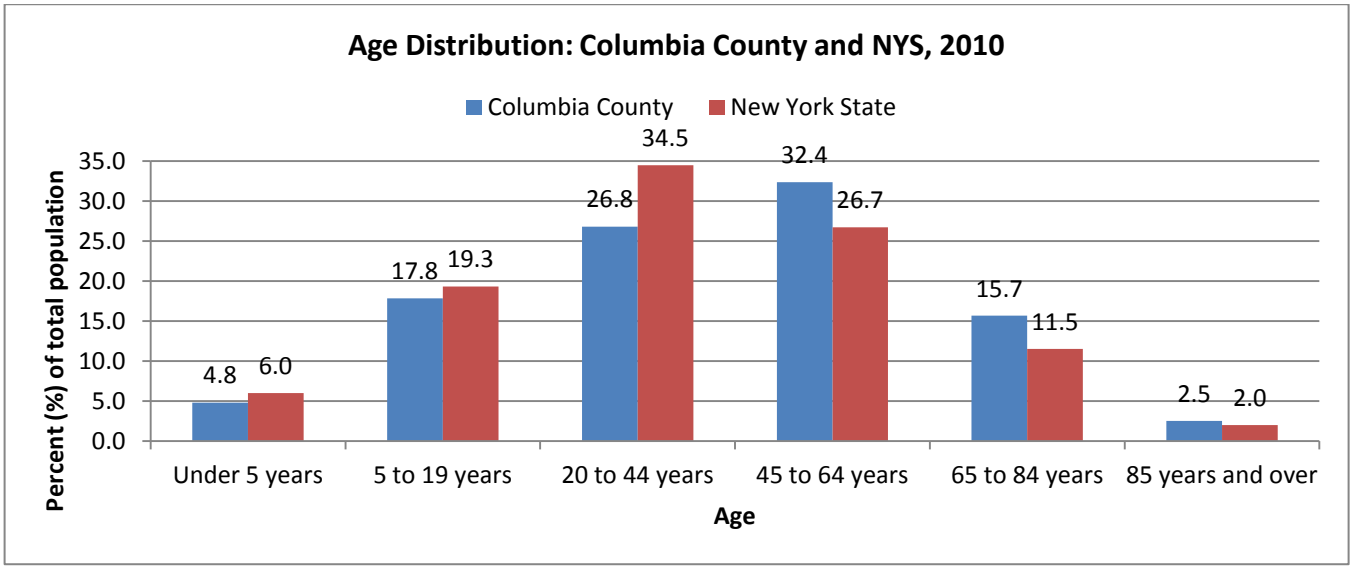

Figure 9: Age Distribution of Columbia County and New York State, 2010; 2010 Columbia County total population: 63,096; 2010 New York State total population: 19,378,104; (United States Census Bureau, American Fact Finder, 2010)

Specific health concerns of the aging are discussed on page 77. Specific issues, challenges, and health concerns faced by youth are outlined on page 76.

Race and Ethnicity

The race and ethnicity distribution of the county follows: 91.2% White, 4.9% Black, 4.0 % Hispanic or Latino, 0.3 % American Indian or Alaska Native, 1.7% Asian, and 1.9% individuals who self-identify as two or more races. The state race and ethnicity distribution is included in the following table for comparison (Figure 10).

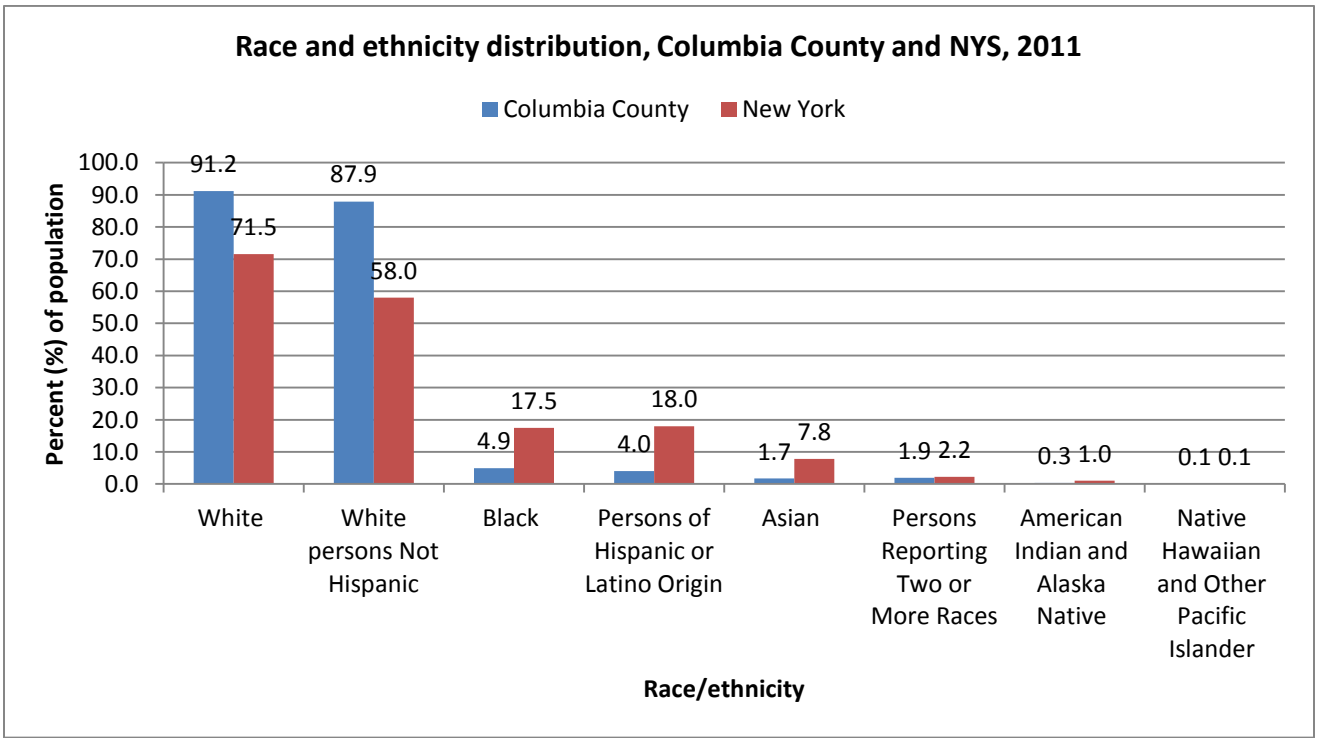

Figure 10: Race and ethnicity distribution of Columbia County and New York State, 2011 (United States Census Bureau)

Just over five percent (5.6%) of the Columbia County population was foreign-born compared to 21.8% of the state population (2007-2011 Census Bureau Data). One population of note in the county is the migrant workers who provide labor at farms and other businesses, such as restaurants, landscaping and construction companies, and laundries. Their main countries of origin include: Jamaica, Mexico, and Guatemala. Spanish is the primary language for most. It is estimated (by a CCDOH professional) that over 500 migrant workers serve over 10 farms in the county during harvest time, from July through October each year. Specific health concerns of migrant workers are covered on page 77.

Compared to other localities in the county, the City of Hudson has the largest percentage of minority populations. The city's race and ethnicity distribution follows (Figure 11).

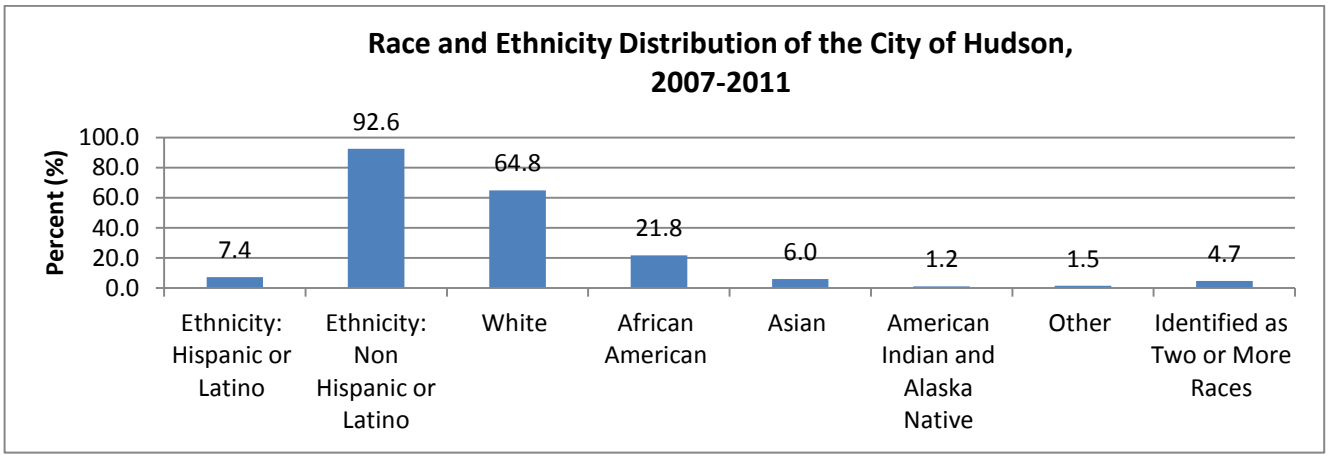

Figure 11: Race and ethnicity distribution of the City of Hudson, 2007-2011 (United States Census Bureau, American Community Survey 5-Year Estimates, 2007-2011); City of Hudson 2011 population estimate: 6,788 (United States Census Bureau)

There is a large Bengali population, estimated by a community member at 400 individuals, which resides primarily in Hudson. Specific health concerns of the Bengali population are described on page 78.

Language

Most Columbia County residents (92.5%) speak English only at home. Approximately 7.5% of residents (age 5 and over) speak a language other than English at home (Table 5).

Table 5: Language spoken at home, Columbia County and New York State, 2007-2011 (United States Census Bureau, American Community Survey 5-Year Estimates, 2007-2011)

Language Spoken at Home, 2007-2011	Columbia County		NYS	
	Estimate	Percent	Estimate	Percent
Population 5 years and over	60,019		18,144,441	
English only	55,525	92.5	12,798,327	70.5
Language other than English	4,494	7.5	5,346,114	29.5
Speak English less than "very well"	1,162	1.9	2,416,773	13.3
Spanish	1,772	3.0	2,640,614	14.6
Speak English less than "very well"	414	0.7	1,225,812	6.8
Other Indo-European languages	2,185	3.6	1,602,964	8.8
Speak English less than "very well"	529	0.9	625,917	3.4
Asian and Pacific Islander languages	258	0.4	846,507	4.7
Speak English less than "very well"	143	0.2	480,377	2.6
Other languages	279	0.5	256,029	1.4
Speak English less than "very well"	76	0.1	84,667	0.5

Education

Almost one third (31%) of county residents have achieved high school graduation or equivalent degree, 15.3% have a bachelor's degree, and 13.1% have a graduate or professional degree. Almost one tenth (9.6%) have attained 9th to 12th grade education with no diploma (Figure 12).

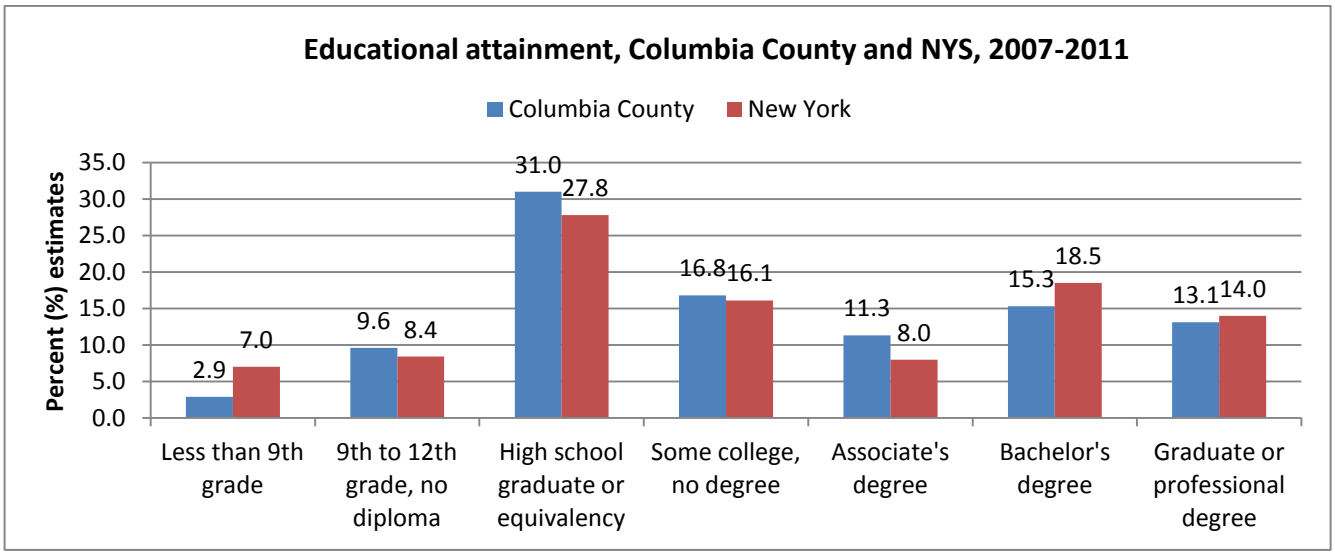

Figure 12: Educational attainment, Columbia County and New York State, 2007-2011
(United States Census Bureau, American Community Survey 5-Year Estimates, 2007-2011)

The high school dropout rate for the county is 2.7% (NYS Department of Education, 2008-2010).

Employment and Veteran Status

The local economy of the county is one of diverse small businesses, farms, employees of the State of New York, other public employees, health care workers, and commuters to businesses in the greater Albany area. The occupation distribution follows: management, business, science, and arts: 37.9%; service occupations: 17.5%; sales and office occupations: 22.8%; natural resources, construction, and maintenance occupations: 11.3%; and production, transportation, and material moving occupations: 10.5% (United States Census Bureau, 2007-2011 American Community Survey). Table 6 displays the employment status of county residents. Over seven percent (7.6%) of county residents are unemployed.

Table 6: Employment status, Columbia County and New York State, 2007-2011
(United States Census Bureau, American Community Survey 5-Year Estimates, 2007-2011)

EMPLOYMENT STATUS (2007-2011)	Columbia County		NYS	
	Estimate	Percent	Estimate	Percent
Population 16 years and over	51,951	51,951	15,494,360	15,494,360
In labor force	33,048	63.6	9,881,672	63.8
Civilian labor force	33,040	63.6	9,855,104	63.6
Employed	30,543	58.8	9,051,668	58.4
Unemployed	2,497	4.8	803,436	5.2

Armed Forces	8	0.0	26,568	0.2
Not in labor force	18,903	36.4	5,612,688	36.2
Civilian labor force	33,040	33,040	9,855,104	9,855,104
Percent Unemployed	(X)	7.6	(X)	8.2

There are estimated to be 6,042 veterans in Columbia County (United States Census Bureau, 2007-2011). Specific health concerns of veterans are discussed on page 78.

Income and Poverty

The county-wide median household income is $55,546. However, the median household income of Hudson residents is $40,203 (United States Census Bureau, American Community Survey, 2006-2010).

In Columbia County, Whites have a higher median annual household income than Blacks, Asian/Pacific Islanders, Hispanics, and individuals of two or more races (Figure 13).

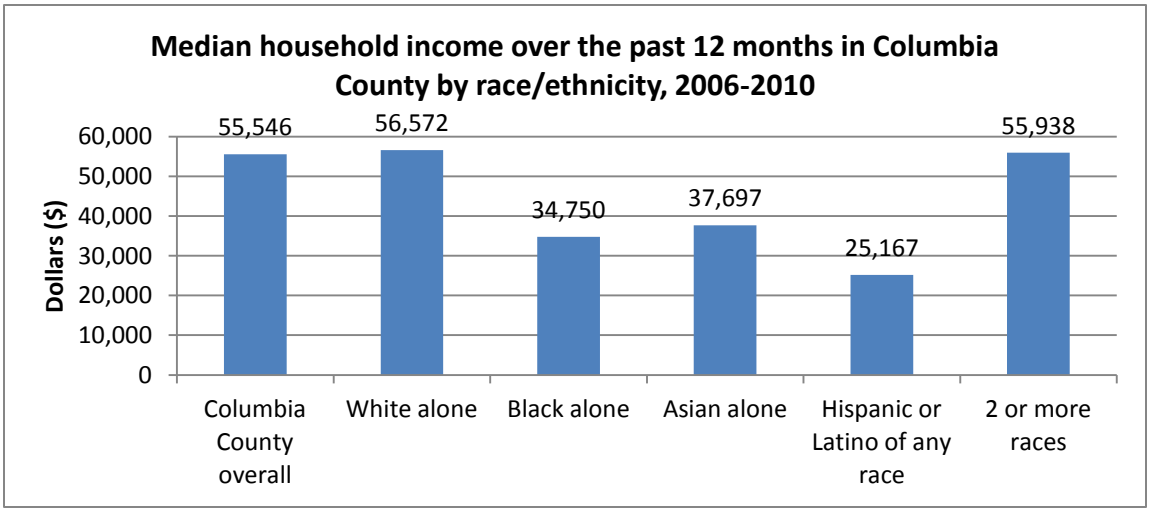

Figure 13: Median household income in Columbia County by race/ethnicity, 2006-2010 (United States Census Bureau, American Community Survey, 2006-2010)

In Columbia County overall, 8.2% of individuals are living in poverty (compared to the state rate of 15.1% and country rate of 14.4%) (Figure 14).

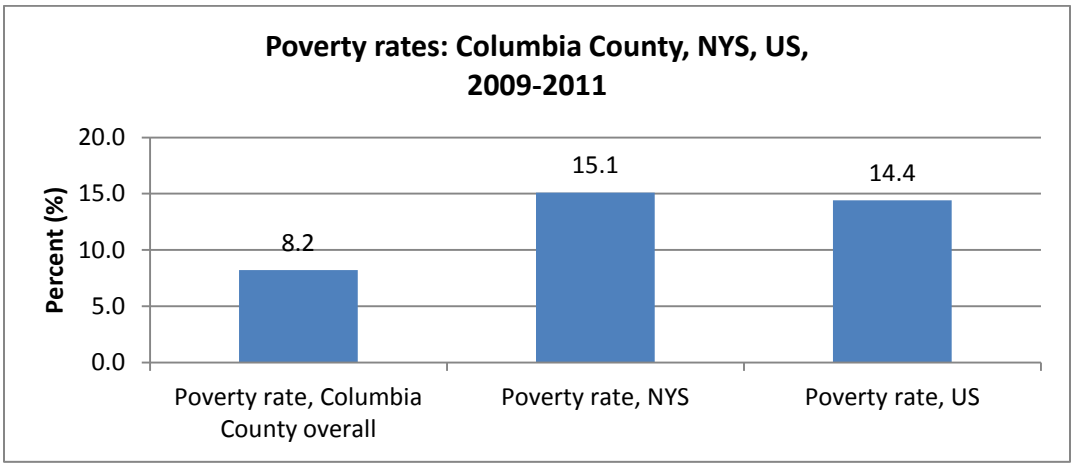

Figure 14: Poverty rates: Columbia County, New York State, the United States, 2009-2011 (United States Census Bureau, American Community Survey 3-year estimates, 2009-2011)

In the county, Hispanics/Latinos have a higher rate of poverty than African Americans, and both groups have a higher rate of poverty than Whites (Figure 15).

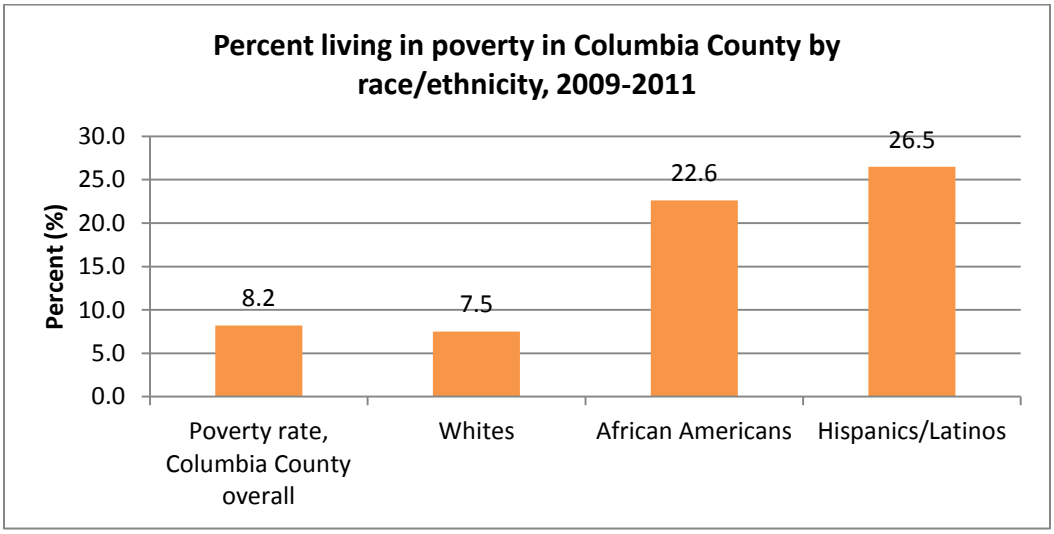

Figure 15: Percent living in poverty in Columbia County by race, 2009-2011 (United States Census Bureau, American Community Survey 3-year estimates, 2009-2011)

Almost 10% (9.9%) of children younger than 18 years of age in the county are living in poverty; 7.0% of adults age 25 and older are living in poverty; and 4.1% of adults age 65 and older are living in poverty (United States Census Bureau, 2009-2011 American Community Survey 3-year estimates). Over 40% of children in the county are eligible for the free or reduced lunch program (Figure 16) (Hunger Solutions New York).

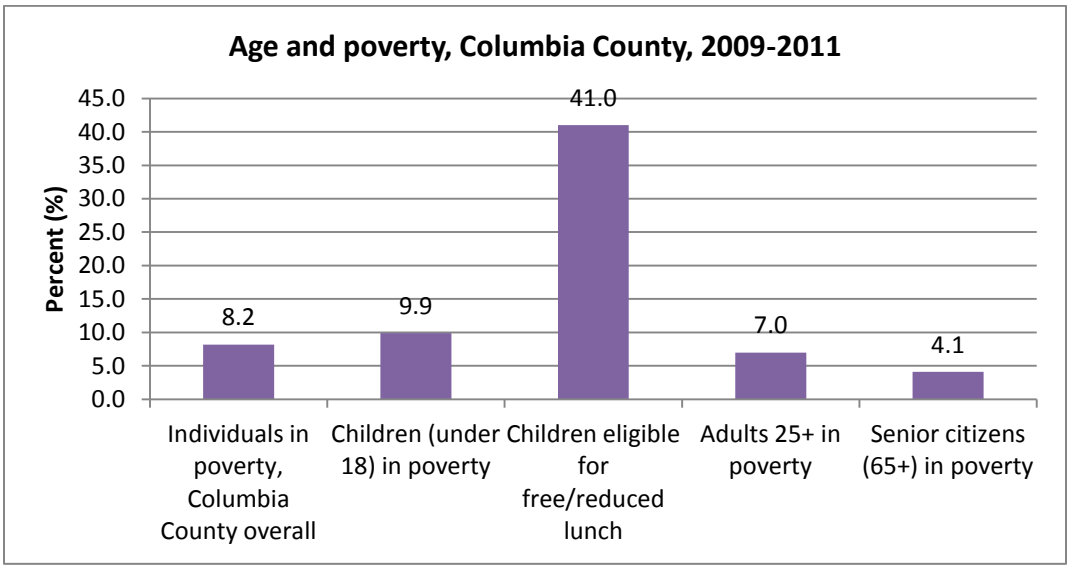

Figure 16: Age and poverty, Columbia County, 2009-2011 (United States Census Bureau, American Community Survey 3-year estimates, 2009-2011; free/reduced lunch data: Hunger Solutions New York)

Some areas of the county have considerable percentages of individuals and families below the poverty level. Localities which have 10% or more of individuals living the below poverty level include the Village of Philmont, City of Hudson, Town of Livingston, Village of Chatham, Village of Valatie, Town of Stockport, Town of Clermont, and Town of Hillsdale. Localities which have 10% or more of families with related children (under age 18) living below the poverty level include the Village of Philmont, Town of Ancram, City of Hudson, Town of Hillsdale, Town of Livingston, Village of Kinderhook, Town of Copake, Town of New Lebanon, Village of Chatham, and Town of Greenport (Figure 17).

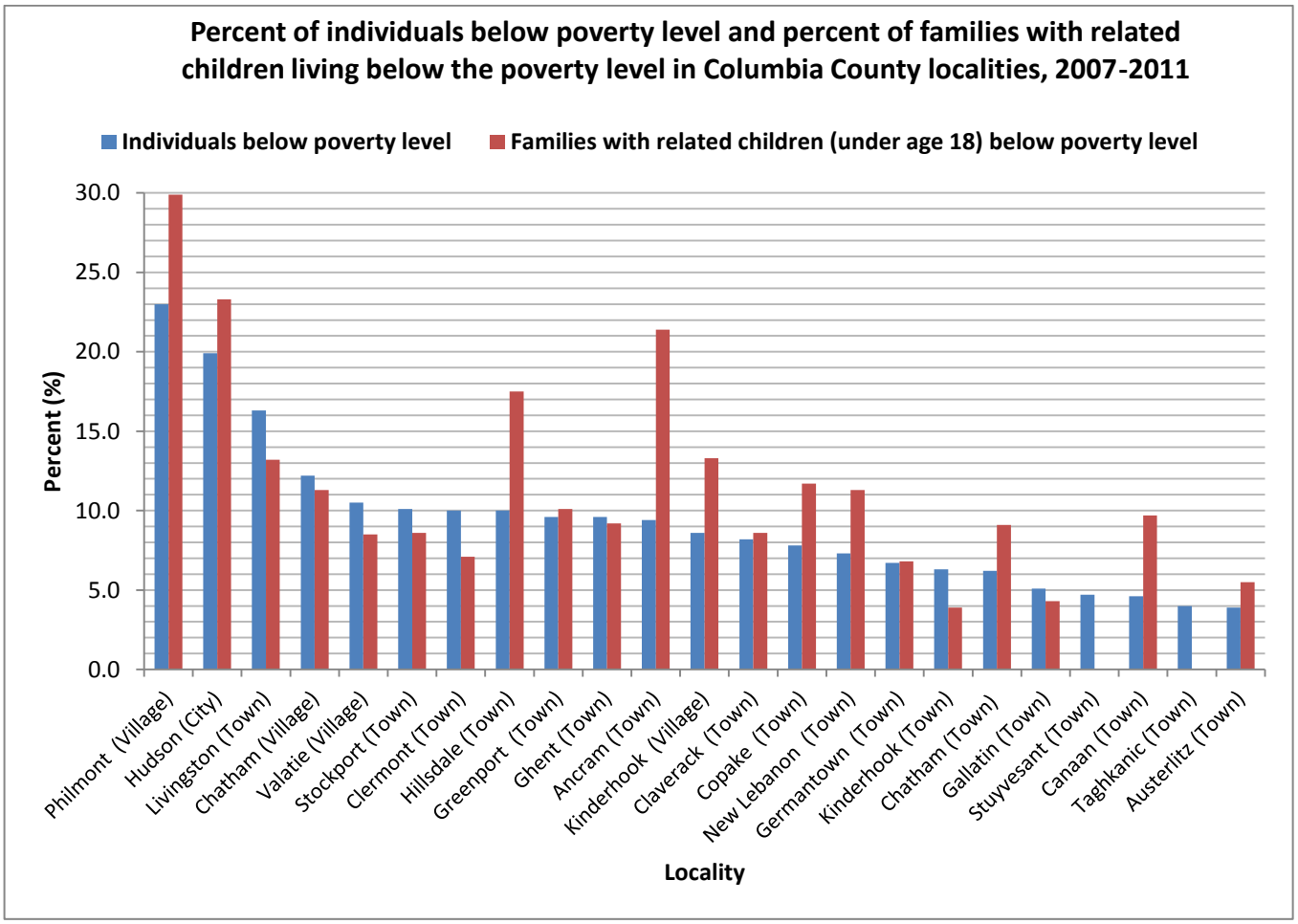

Figure 17: Percent of individuals below poverty level and percent of families with related children living below the poverty level in Columbia County localities (United States Census Bureau, American Community Survey 5-Year Estimates, 2007-2011)

The percent of those living in poverty decreases with increasing level of education attained (Figure 18).

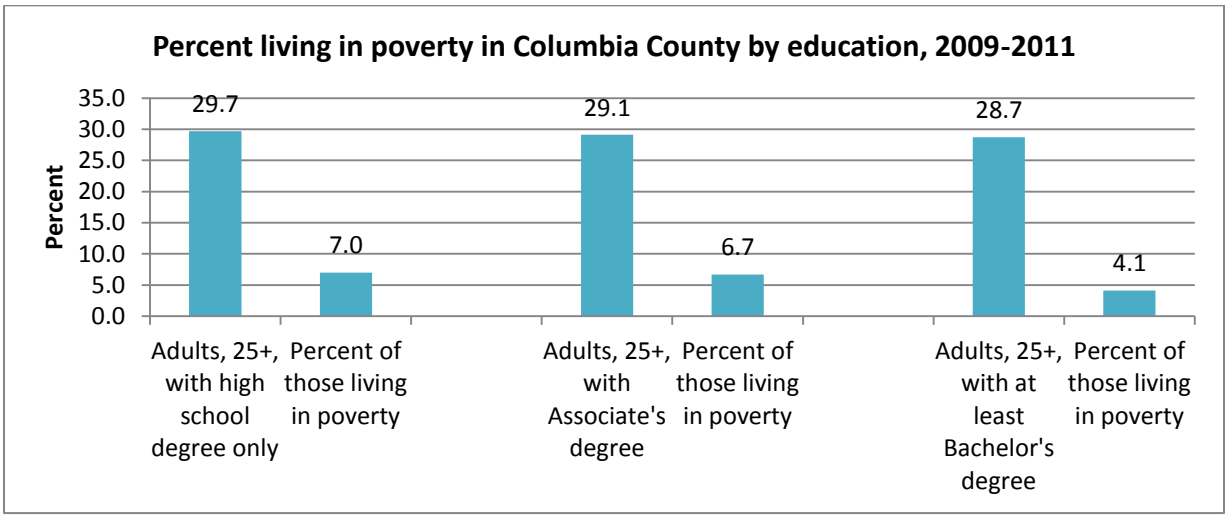

Figure 18: Percent living in poverty in Columbia County by education, 2009-2011 (United States Census Bureau, American Community Survey 3-year estimates, 2009-2011)

Median income is higher for males with a high school diploma only, compared to females with a high school diploma only (Figure 19). The living wage for a household with one adult and one child is $43,767.

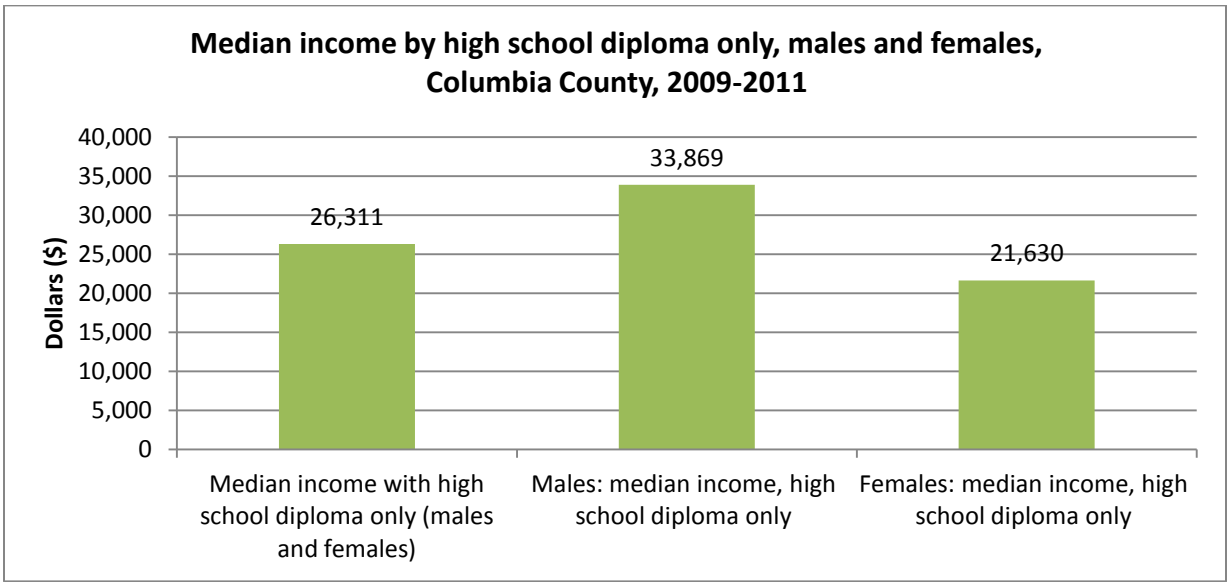

Figure 19: Gender, education, and poverty: median income with high school diploma by gender, Columbia County, 2009-2011 (United States Census Bureau, American Community Survey 3-year estimates, 2009-2011)

Of those with no health insurance in the county, 10.9% are employed and 35.2% are unemployed (Figure 20).

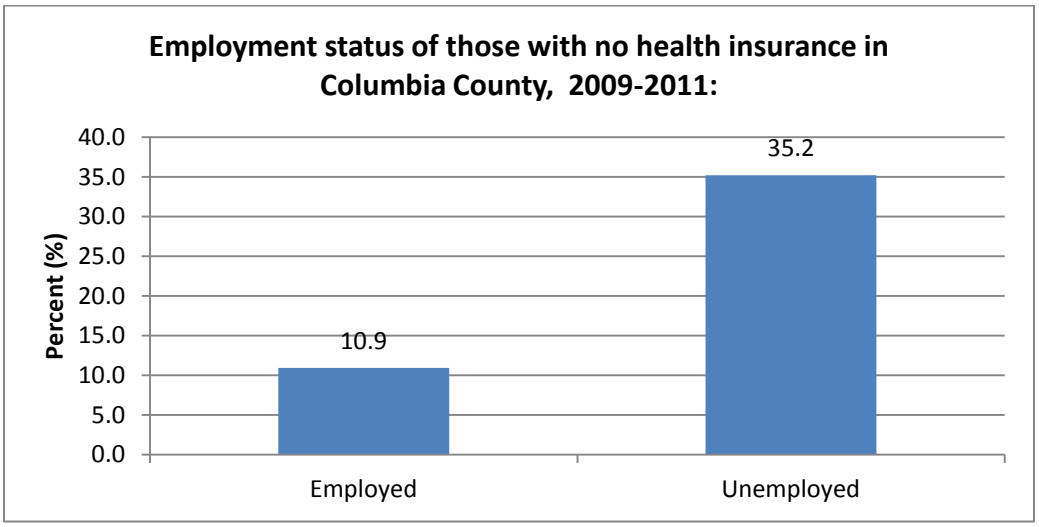

Figure 20: Health and poverty: employment status of those with no health insurance, Columbia County, 2009-2011 (United States Census Bureau, American Community Survey 3-year estimates, 2009-2011)

There are numerous community programs and agencies to assist individuals and families in poverty, including Columbia County Department of Health, Columbia Opportunities, Columbia County Department of Social Services, Catholic Charities of Columbia and Greene Counties, the Columbia County Community Healthcare Consortium, Greater Hudson Promise Neighborhood, food pantries, and others. Many are described in Attachment 2: 2013 Columbia-Greene Interagency Yellow Pages.

Housing

The homeownership rate in Columbia County is 73.8%, compared to 54.8% for the state (Table 7).

Table 7: Housing, Columbia County and New York State
(United States Census Bureau, American Community Survey 5-Year Estimates, 2007-2011)

Housing	Columbia County	NYS
Housing units, 2011	32,875	8,119,364
Homeownership rate, 2007-2011 (%)	73.8	54.8
Housing units in multi-unit structures, percent, 2007-2011	16.2	50.5
Median value of owner-occupied housing units, 2007-2011	$224,100	$301,000
Households, 2007-2011	25,681	7,215,687
Persons per household, 2007-2011	2.4	2.6

The housing stock in the county is predominately an older stock, is owner occupied, and is generally located in non-urban settings. Many of the older homes in the county have lead contamination; as such, lead exposure is a health concern for the people of the county, especially young children.

Emergency sheltering for homeless families without resources is provided by the Columbia County Department of Social Services. Families are generally housed at local or area motels; however, many are distant and inaccessible to services and opportunities.

Disability

Disability refers to having activity limitations due to physical, mental, or emotional problems that require the use of special equipment. In the county overall, 19.8% of adults have a disability (21.2% of adult males and 18.5% of adult females). A higher percentage of people who have less than or equal to a high school degree have a disability (22.0%) compared to those with a college degree or higher (15.3%) (NYSDOH BRFSS, 2008-2009).

Health Insurance Access

According to the Behavioral Risk Factor Surveillance System (BRFSS), a telephone survey of NYSDOH (published in 2008-2009), 89.9% of Columbia County residents and 86.7% of New York State residents have health insurance. In the county, those with health insurance include: 87.1% of males, 92.6% of females, 90.5% of county residents with less than or equal to a high school degree, 94.3% of those with a college degree or a higher level of educational attainment, 88.6% among those ages 18-64 (84.4% of males and 92.8% of females), and 94% of children less than 19 years of age (US Census Bureau, 2010).

Access to a Regular Source of Care

Almost eighty five percent (84.6) of Columbia County adults have a regular health care provider (78.6% of adult males and 90.1% of adult females) (in the BRFSS, this was defined as “having one or more persons respondent thinks of as a personal doctor or health care provider.” Among New York State adults, 83% have a regular health care provider. The BRFSS revealed that 13.2% of adults in Columbia County needed to see a health care provider in the past year but were unable to because of cost (NYS: 13.8%) (NYSDOH BRFSS, 2008-2009).

Some individuals have difficulty accessing care for various reasons, including, but not limited to: cost of care (including cost of co-pays), language barriers, cultural beliefs or practices, no paid time off from work, distance from services, lack of transportation, lack of knowledge of the importance of health care and disease prevention, low health literacy, and stigma attached to seeking certain services, such as mental and behavioral health services.

For hospital services, county residents utilize Columbia Memorial Hospital, as well as hospitals in Albany and Dutchess Counties and Massachusetts.

Between 2006 and 2010, the overall emergency department visit rate was much higher for Columbia County (36,059.9 per 100,000 persons) compared to the state (27,986.8 per 100,000). Within the county, the highest emergency department visit rate was for the Greater Hudson Area (55,612.6 per 100,000) and the Southern Area (30,131.0 per 100,000) (Attachment 3). These high rates of emergency department visits suggest that many in the county may not have a primary health care provider.

Columbia County has been designated (by the US Department of Health and Human Services, Health Resource Services Administration) as having a Primary Care Medically Underserved Population (MUA/MUP for the Medicaid eligible population). There is a primary care HPSA (Health Professional Shortage Area) designation for the Medicaid eligible populations in Columbia County (Columbia County Community Healthcare Consortium, 2012). Also, Columbia County has a designated dental HPSA (Health Professional Shortage Area) (designated in May, 2012).

The Columbia County Community Healthcare Consortium, through programs such as Facilitated Enrollment, assists uninsured or underinsured individuals in accessing health care services. The Cancer Services program helps uninsured and underinsured individuals to receive cancer screenings, and also assists people from pre-diagnosis of cancer through treatment. CCDOH refers patients and community members to Healthcare Consortium services. Other programs in the county to help people access care include Medicaid, Child Health Plus, and Family Health Plus. The Department of Social Services can also assist people in accessing those programs

Columbia County residents can access mental health services through the Columbia County Mental Health Center, the Mental Health Association of Columbia and Greene Counties, and private providers. Barriers to accessing mental health services include: geographic, transportation, financial, regulatory, and stigma-related barriers. The local Article 41 Community Services Board and the Local Governmental Unit of Columbia County continually evaluate the development of practical solutions to barriers to accessing care. Some solutions include: expansion of service locations of the Mental Health Clinic from one to five in the past two years, contracting with the Columbia County Community Healthcare Consortium for non-Medicaid medical transportation to services, advocating for reasonable co-pays and deductibles (and waiving these on a case-by-case basis), advocating for regulatory flexibility, and educating the public about mental illness.

With regard to substance abuse treatment services, barriers are the same as those mentioned above. The local Article 41 Community Services Board and the Local Governmental Unit of Columbia County continually

evaluate the development of practical solutions, including: expansion of service locations of the Twin County Recovery Services Substance Abuse clinic from one to two in the past year, advocating for reasonable co-pays and deductibles, advocating for regulatory flexibility, and educating the public about substance abuse.

Access to a regular source of specialized care for individuals who have both mental illness and substance abuse disorders, or for those who have both mental illness and intellectual or developmental disabilities is also a challenge. For these individuals, the barriers to care may be the same as those mentioned above: geographic, transportation, financial, regulatory, and stigma-related barriers. Some individuals may have to utilize geographically remote services. Implementation of full Medicaid Managed Care may result in an increase of regional specialized services.

In the coming years, access to a regular source of care should increase for community members. In September of 2013, a local nonprofit health organization, Hudson River Healthcare, was awarded "New Access Point" grant money (from the US Department of Health and Human Services) for a Federally Qualified Healthcare Center (FQHC). The site will be located in Hudson and will provide physical and behavioral health services to people of Columbia and Greene Counties, with a focus on the city of Hudson and the town of Catskill. Under the grant, Hudson River Healthcare will provide 3,000 residents and an additional 500 agricultural workers with a patient-centered "medical home": a primary health care setting which delivers optimal care by facilitating partnerships between individual patients and their personal physicians, as well as support staff and family members whenever appropriate.

Access to a regular source of care should also increase with the implementation of the Patient Protection and Affordable Care Act (ACA/"ObamaCare"), a law which makes preventive care more affordable and accessible for many Americans. Signed into law in 2010, parts of the ACA have gone into effect, but many parts will take effect in the coming years (US Department of Health and Human Services).

ACA stands to change the face of health care access. ACA has faced great opposition since its conception. This health care reform will allow all citizens to access health care, regardless of their health standing, preexisting conditions, their socioeconomic status, employment status, age, race, or sex. According to the US Department of Health and Human Services (2013), there are a number of changes that will take effect concerning coverage, costs, and care.

Coverage should improve by:

- Elimination of preexisting conditions exclusions for children
- Allowing young adults, up to age 26, to remain covered under their parents' insurance
- Elimination of arbitrary withdrawals of coverage due to honest mistakes
- Guaranteeing individuals' right to appeal a payment denial and have the company reconsider the claim

Costs should improve by:

- Eliminating lifetime limits on coverage
- Reviewing premium increases

- Getting the most from the premium, by paying for health care, not administrative costs

Care should improve by:

- Covering preventative care at no cost to the policy holder
- Protecting an individual's choice of doctor
- Removing insurance company barrier to emergency services by allowing the patient to seek emergency care at outside-network hospitals

These changes in health care could be beneficial to Columbia County residents by allowing those who are uninsured or underinsured to access better health care.

The Determinants of Health

The World Health Organization (1948) defines health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." Understanding the health status of Columbia County residents requires understanding community demographics, as well as determinants of health. Determinants of health are factors which contribute to a person's health. They may be social (i.e. discrimination, poverty, quality of schools, migrant/immigrant status), biological (i.e. genetics, age), behavioral (i.e. smoking, level of physical activity, eating habits), health services (i.e. access to quality care), or physical environment (i.e. workplace, environmental contaminants) (Centers for Disease Control and Prevention, 2013). These determinants may explain why some people have better health than others, and why certain people are not as healthy as they could be (Healthy People 2020, 2013).

In this document, data will be presented to demonstrate that different groups of people living in the same overall geographical area, Columbia County, may experience health disparities in a wide range of areas, including (but not limited to) heart disease, high blood pressure, diabetes, obesity, preventable hospitalizations, emergency department visits, teen pregnancy, environmental exposure, and premature death.

Social Determinants of Health

According to the Centers for Disease Control and Prevention (2013b), "the *social* determinants of health are the conditions in which people are born, grow, live, work, and age, as well as the systems put in place to deal with illness."

Figure 21: Social determinants of health (SDOH) may include the neighborhood and built environment, health and health care, the social and community context, education, and economic stability (Healthy People 2020, 2013)

The conditions in which people live are influenced by the distribution of money, resources, and power at different levels of society (global, national, and local), as well as by social policies, politics, and social injustices (World Health Organization, 2013; Health Poverty Action, 2013). Health inequities, which result from inequalities in society, are preventable differences in health status between groups of people. For example, those of lower socioeconomic status in society generally have the worst health (World Health Organization, 2013). (Socioeconomic status refers to the social standing or class of a person or group; it is measured by income, occupation, and education (American Psychological Association, 2013)). Poverty and lower socioeconomic status may lead to poor health, and poor health may lead to poverty and lower socioeconomic status – a condition called the "cycle of poverty" (Health Poverty Action, 2013).

In addition to socioeconomic status, health disparities are also experienced by groups according to: race and ethnicity, gender, sexual identity or orientation, disability status or special health care needs, and geographic location (Healthy People 2020, 2013). Some factors which may lead to poorer health status in a group experiencing disparities may include stress, discrimination, being marginalized in society, lack of social support, poor living environment, unsafe neighborhoods, poor nutrition, limited access to care, and limited access to information and education. Many of these factors are out of an individual's personal control.

Health Risk Factors

A health risk factor is a condition, characteristic, attribute, or exposure of an individual that makes it more likely that the individual will develop a disease or injury. For example, risk factors may be behavioral, environmental, related to policy, and genetic (World Health Organization, 2013).

Behavioral Risk Factors

The top four behavioral risk factors for Americans are: tobacco use, sedentary lifestyle, unhealthy diet, and alcohol use. Other behavioral risk factors include risky sexual behavior, unhealthy behaviors during pregnancy or childbearing years, non-adherence to prescribed medical screening and prevention, non-adherence to disease management practices, unsafe coping behaviors, and avoidable injuries (i.e. driving under the influence of drugs or alcohol, motor vehicle injuries, family and gun violence, unsafe worksite behaviors and worksite injuries, and sun exposure) (Glanz, 2008).

Behavior change can be a complex Public Health endeavor. It is useful to take a multi-faceted approach to helping individuals and communities take on healthy behaviors. Public Health theory advocates for a "policies, systems, and environment" (PSE) approach whereby the environments in which people live, work, learn, and play help them to make the healthy choice the first or natural choice. For example, if the public spaces in which a person spends most of their time are smoke free, this environment may make it easier for the individual to stop smoking. If there is a breastfeeding policy at a worksite which allows a woman to pump breast milk in a secure space during the work day, a woman may be more apt to continue giving her infant breast milk after she returns to work from maternity leave.

In Public Health, we can direct efforts to change health behaviors at different levels of society – at the individual, family, community, and policy levels. Encouraging behavior change can also be facilitated by understanding the Transtheoretical Model, also known as the Stages of Change Model. This model states that people are in different stages of readiness to change behavior and there are different approaches to helping people change at different stages (Pro-change, 2010-2013).

Environmental Risk Factors

The environment in which people spend time may also pose various risk factors for health. Environmental risk factors may include exposure to radon in the home, indoor and outdoor air pollution, water pollution, lack of fluoridation in the water supply, lead from older housing, pesticides and other chemicals, cell phone use, environmental disasters such as weather disasters, climate change, mold, food safety, and safety of neighborhoods.

Policy Environment

The policies in places and organizations in which people live, work, learn, and play also impact health. Some policies that may affect health include policies regarding: smoke free parks, tobacco use restrictions on county buildings and grounds, Complete Streets, school wellness (i.e. nutrition and physical activity standards), menu labeling, worksite wellness, breastfeeding accommodations at worksites, and landlord disclosure about tobacco use policies.

County Health Data and Analysis

In public health, specific terms are used to describe disease: incidence, prevalence, morbidity, and mortality. Incidence is the number of newly diagnosed cases of a disease within a certain period of time; an incidence rate is the number of new cases of a disease divided by the number of persons at risk for the disease. Prevalence is the total number of cases of disease existing in a population during a certain period of time; a prevalence rate is the total number of cases of a disease existing in a population divided by the total population. Prevalence includes new and pre-existing cases of disease. Morbidity, another word for illness, is expressed in either incidence or prevalence. Mortality is another word for death; mortality rate is the number of deaths due to a disease divided by the total population (Iowa Department of Health).

General Health Indicators

Table 8 displays general health indicators by race or ethnicity in Columbia County compared to the state, excluding New York City. Blacks have the highest percent premature deaths compared to other ethnicities/races. Here, premature death is considered death before 75 years of age. Blacks also have many more years of potential life lost compared to other groups.

Table 8: General health indicators by race/ethnicity, Columbia County and New York State, 2008-2010
(NYSDOH County Health Indicators by Race/Ethnicity, revised 2012)

Key: s = total suppressed for confidentiality; ~ = fewer than 20 events in the numerator -- an unstable rate; *= Hispanics are not excluded from the Black and Asian/Pacific Islander categories. Pacific Islanders are not included in the Asian/Pacific Islander category.

General Health Indicators, 2008-2010	Columbia County					NYS, Excluding New York City				
	Non-Hispanic			Hispanic	Total	Non-Hispanic			Hispanic	Total
	White	Black	Asian/ Pacific Islander			White	Black	Asian/ Pacific Islander		
Percent Premature Deaths (< 75 Years)	38.0	67.2	66.7~	66.7~	39.5	34.5	62.2	56.7	62.6	37.2
Years of Potential Life Lost per 100,000 persons, Age-adjusted	5,879	13,188	2,121~	6,072~	6,370	5,291	9,087	2,024	4,506	5,550

The following table displays the total mortality rate in Columbia County and the state, excluding New York City. The county has a higher total mortality than that of New York State (738.2 per 100,000 persons compared to 700.5 per 100,000). In the county, the mortality rate for non-Hispanic Blacks is higher than for other ethnicities, and the rate for Asian/Pacific Islanders is the lowest compared to other ethnicities. Columbia County mortality rates for all ethnicities are higher than New York State rates (Figure 22).

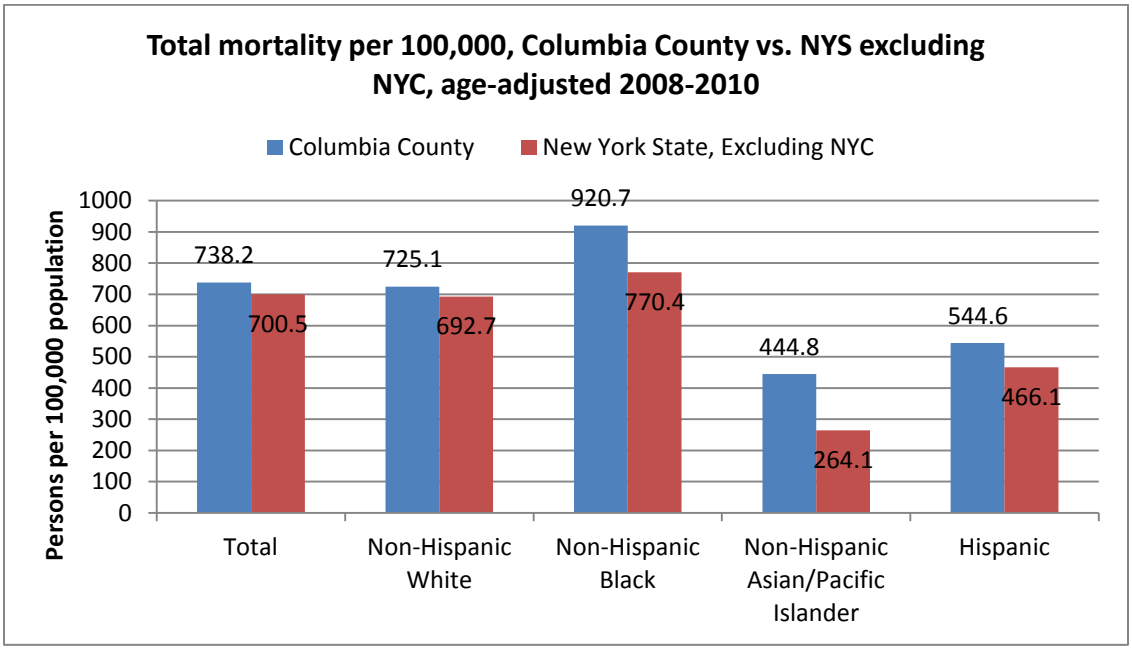

Figure 22: Total mortality per 100,000, Columbia County vs. New York State excluding New York City, age-adjusted, 2008-2010 (NYSDOH)

Within the county, total mortality varies by region. Between 2006 and 2010, the Greater Hudson Area had the highest total mortality compared to: the county overall, the Northern Area, and the Southern Area. Compared to upstate NY, the following areas had higher mortality: the county overall, the Greater Hudson Area, and the Northern Area (Table 9; see Attachment 3: health data from NYSDOH SPARCS categorized *by community* supplied by HCDI in 2013 with technical support from FLHSA. For health data from SPARCS categorized *by subpopulation*, please refer to Attachment 4).

Table 9: All causes mortality in Columbia County by region, 2006-2010
(NYSDOH SPARCS; provided by HCDI in 2013 with technical support from the FLHSA)
Key: Blue indicates the rates are higher than the Upstate NY rate.

Region	All Causes Mortality per 100,000 persons, 2006-2010		
	#	Crude Rate	Age-Sex Adjusted Rate
New York State, excl. NYC	457,107.0	820.7	687.6
Columbia County	637.0	1,023.0	738.7
Greater Hudson Area	239.8	1,167.8	842.0
Northern Area	246.2	954.5	697.4
Southern Area	95.0	770.5	550.9

Please refer to Attachment 3 for a description of the zip code groupings which make up the county regions (Greater Hudson Area, Northern Area, and Southern Area).

In 2011, the leading causes of death in the county were heart disease, cancer, chronic lower respiratory disease (CLRD), stroke, unintentional injury, and pneumonia and influenza (Figure 23). The county's mortality

rates for heart disease, cancer, and CLRD are higher than those of the state. Pneumonia and influenza are not a leading cause of death for the state.

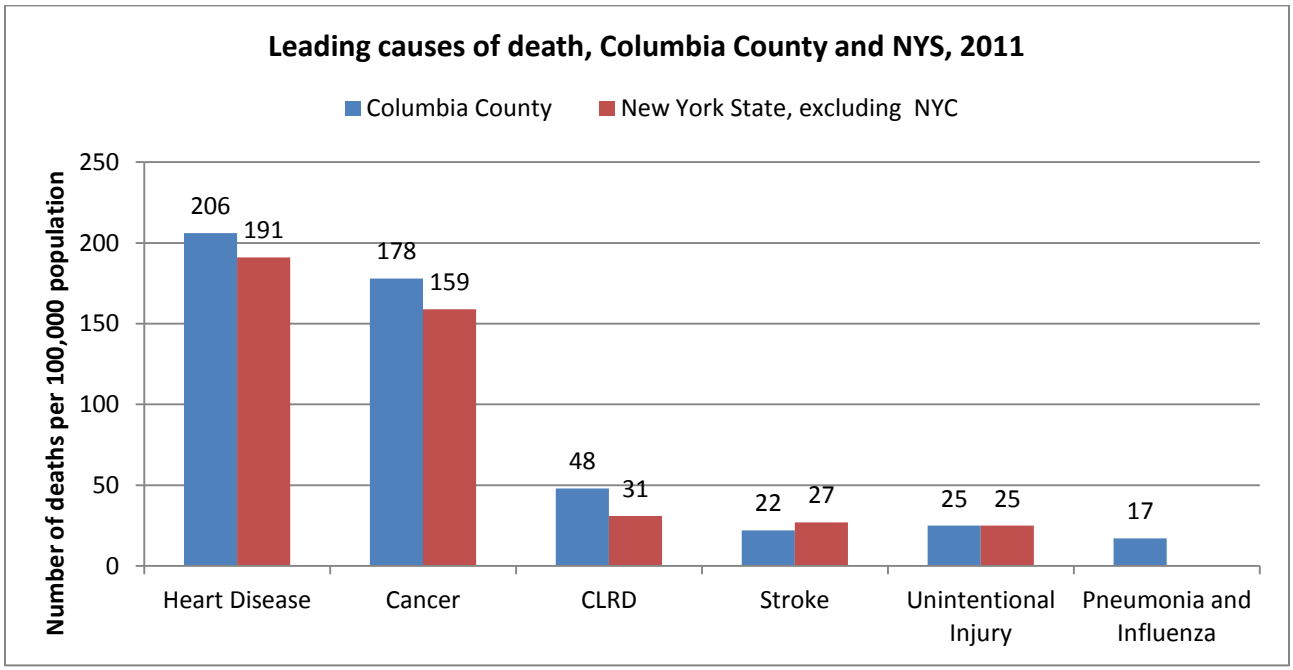

Figure 23: The leading causes of death, Columbia County vs. New York State, 2011;
CLRD = chronic lower respiratory disease. The Columbia County rates for unintentional injury and pneumonia and influenza are based on less than 20 events in the numerator and are therefore unstable **(NYSDOH Bureau of Biometrics and Health Statistics, 2013)**

The following data are indicators for tracking public health priority areas. Columbia County's percentage of premature death (here measured as before age 65 years) is slightly higher than the 2017 objective for New York State. In the county, black non-Hispanics have a percentage of premature death twice as high as that of White non-Hispanics. In the county, the age-adjusted rate of preventable hospitalizations (per 100,000 persons, ages 18+ years) is lower than that of New York State and the NYS 2017 objective. However, for the county, Black non-Hispanics have a higher rate of preventable hospitalizations compared to White non-Hispanics (ratio of 1.9). Hispanics have a higher rate of preventable hospitalization compared to White non-Hispanics (ratio of 0.7).

Table 10: Indicators for tracking Public Health priority areas: Improve Health Status and Reduce Health Disparities (NYSDOH, State and County Tracking Indicators for the Priority Areas, revised 2013)

Improve Health Status and Reduce Health Disparities				
Indicator	**Data Years**	**Columbia County**	**NYS**	**NYS 2017 Objective**
Percentage of premature death (before age 65 years)	2008-2010	22.4	24.3	21.8
Ratio of Black non-Hispanics to White non-Hispanics		*2.0*	*2.1*	*1.9*
Ratio of Hispanics to White non-Hispanics		*2.02+*	*2.14*	*1.9*
Age-adjusted preventable hospitalizations rate per 10,000 - Ages 18+ years	2008-2010	106.7	155.0	133.3
Ratio of Black non-Hispanics to White non-Hispanics		*1.9*	*2.1*	*1.9*

Ratio of Hispanics to White non-Hispanics		*0.7*	*1.5*	*1.4*
Percentage of adults with health insurance - Ages 18-64 years	2010	84.2 (82.7-85.7)	83.1 (82.9-83.3)	100.0
Age-adjusted percentage of adults who have a regular health care provider - Ages 18+ years	2008-2009	84.6 (79.5-89.6)	83.0 (80.4-85.5)	90.8

Chronic Disease

According to the World Health Organization (2013), "chronic diseases are diseases of long duration and generally slow progression. Chronic diseases, such as heart disease, stroke, cancer, chronic respiratory diseases and diabetes, are by far the leading cause of mortality in the world, representing 63% of all deaths." Chronic diseases are also the leading causes of death and disability in the United States. They are responsible for seven of every ten deaths and impact the quality of life of 90 million Americans (NYSDOH, 2012).

According to NYSDOH:

> "Chronic diseases affect the lives of six million New Yorkers, and account for 73% of deaths in New York State annually. Of the 157,000 deaths in New York State in 2002, 114,000 were attributable to the top five chronic diseases. The proportion of deaths due to chronic disease in New York is somewhat higher than that of the United States, primarily because of higher deaths from diseases of the heart.
>
> Although common and costly, many chronic diseases are also preventable. Many chronic diseases are linked to lifestyle choices that are within your own hands to change. Eating nutritious foods, becoming more physically active and avoiding tobacco can help keep you from developing many of these diseases and conditions. And, even if you already have diabetes, heart disease, arthritis or another chronic condition, eating more healthful food and getting more exercise, whether it's a brisk walk, a bike ride, a jog or a swim, can help you better manage your illness, avoid complications and prolong your life" (NYSDOH, 2012).

Overweight and Obesity

Overweight and obesity are terms used to describe a body weight that is greater than what is considered healthy for a particular height. Body mass index (BMI) is usually used to calculate overweight and obesity. A person's weight is a result of many factors, such as metabolism, behavior and habits, genetics, family history, and environment (National Heart, Lung, and Blood Institute). Millions of Americans experience overweight and obesity, which are the second leading cause of preventable disease in the country. Obesity, considered a chronic disease, is a significant risk factor for other chronic diseases and conditions, such as high blood pressure, type 2 diabetes, asthma, high cholesterol, stroke, heart disease, certain types of cancer, and osteoarthritis. Overweight and obesity may also contribute to psychological distress, depression, discrimination, and prejudice. Obesity is predicted to shorten life expectancy in the U.S. by two to five years by the year 2050 (unless trends in obesity rates change) (NYSDOH BRFSS Brief: Overweight and Obesity, 2011).

Both the New York State Prevention Agenda for 2013-2017 and Columbia County CHA and CHIP have identified reducing obesity as a focus area. NYS has set an objective to reduce obesity by 5% among adults and by 10% among adults living with disabilities.

In Columbia County, 57.5% of adults are *either* overweight or obese (BMI 25 or higher), and 60.6% of adults in NYS overall are *either* overweight or obese (NYSDOH BRFSS, 20008-2009).

Figure 24 shows that the county has a lower prevalence of adult obesity than the state, but a higher prevalence of childhood and adolescent obesity.

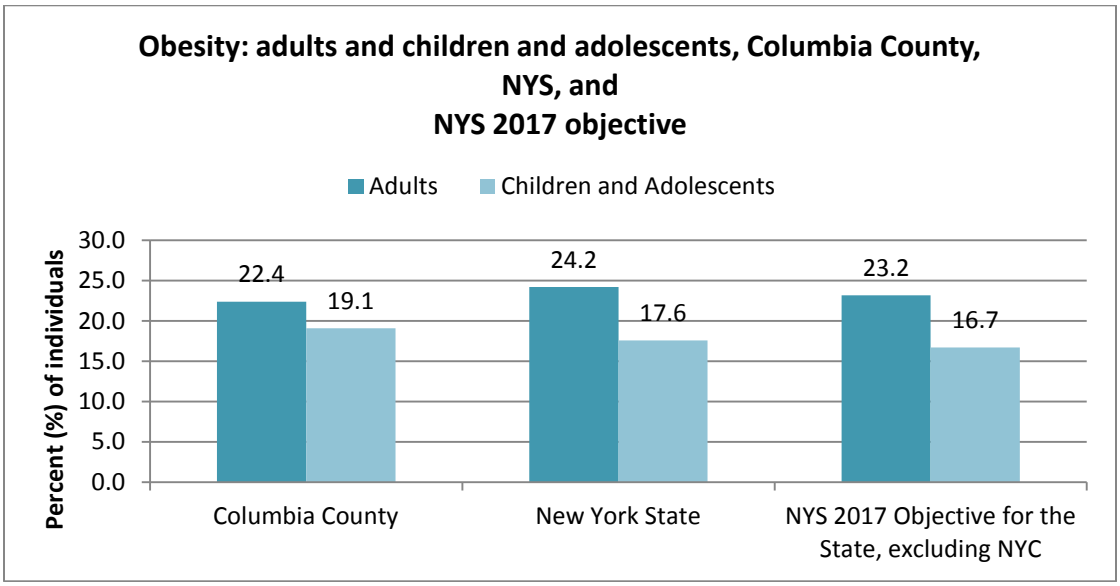

Figure 24: Obesity prevalence: adults (2008-2009) and children and adolescents (2010-2012), Columbia County, NYS, and NYS 2017 objective; age-adjusted (NYSDOH)

In NYS, the prevalence of obesity is 24.5% among all adult residents. However, it is higher among those who are non-Hispanic Black (32.5%), have an annual household income less than $25,000 (26.8%), have attained less than a college education (27.1%), or are currently living with a disability (34.9%) (NYSDOH BRFSS Brief: Overweight and Obesity, 2011).

Certain behaviors, such as physical inactivity and eating unhealthy foods, are linked to overweight and obesity. Over eighty percent (82.3%) of Columbia County adults report engaging in *some* type of leisure time physical activity and only 26.8% report eating five or more fruits or vegetables per day (Table 11). However, this self-reported data may not accurately reflect the reality of the situation.

Table 11: Behavioral health indicators related to overweight and obesity, Columbia County and the rest of the state (Healthy Capital District Initiative, 2013)

Health Behavior Indicator	Year	Columbia County	ROS (rest of state) (excludes NYC)
Percentage of adults engaged in some type of leisure time physical activity	2008-2009	82.3 (78.1-86.6)	78.9 (77.8-80.0)
Number not engaged in leisure time:		8,901	
Percentage of adults eating 5 or more fruits or vegetables per day	2008-2009	26.8 (21.7-31.9)	27.7 (26.4-29.0)
Number not eating fruits/vegetables:		36,812	

Among Columbia County adults, 17.7% do not engage in any leisure time physical activity (compared to 23.7% of NYS adults) (NYSDOH BRFSS, 2008-2009).

According to the BRFSS (2008-2009), 20.5% of Columbia County adults and 27.1% of NYS adults received advice about weight from a health professional.

Obesity is increasingly being seen in children in adolescents. Childhood obesity is a very serious chronic disease that stems from the consumption of too many calories and not getting enough physical activity. Obesity in children increases the risk for adult obesity and may lead to negative health effects such as diabetes, heart disease, high blood pressure, and psychological distress. Over the past decade there have been many studies that show a variety of environmental factors that determine childhood overweight and obesity. According to the CDC (2013c), environmental factors that influence childhood overweight and obesity are:

- Sugary drinks and less healthy foods on school campuses
- Advertising for less healthy foods
- Variations in licensure regulations among child care centers
- Lack of daily quality physical activity in schools
- No safe or appealing places in communities to be active
- Limited access to healthy, affordable foods
- Greater availability of high-energy dense foods and sugary drinks
- Increased portion sizes
- Lack of breastfeeding support, and
- Television and media

These environmental factors all play a role in the outcome of childhood overweight and obesity. While many of these factors can be influenced by parents, educators, and the child themselves, others require the attention of public health officials, community members, and state legislatures.

Socioeconomics is a major component in health outcomes and childhood obesity. Citizens in lower socioeconomic brackets tend to have less access to healthy food options, higher access to high-energy dense

foods and sugary drinks, and have an excess of unsafe or undesirable walkways or community areas for physical activity. All of these factors contribute to an increased risk of developing obesity and the other health conditions associated with the disease.

Physical activity, along with a balanced, nutritious diet, can help decrease and prevent obesity. Physical activity and obesity are closely linked. Physical activity is an essential component in a healthy lifestyle. Physical activity not only helps maintain a healthy body weight, but it also helps to strengthen bones and muscles, improves one's ability to do daily activities and prevent falls, and increases a person's chances of living longer (CDC, 2011). Physical activity also reduces the risk of cardiovascular disease, type II diabetes, metabolic syndrome, and some cancers (CDC, 2011).

Childhood obesity has many contributing factors, but lack of physical activity is a major component in decreasing and preventing obesity. According to the CDC (2013c), children aged 8 to 18 spend an average of 7.5 hours daily watching television and movies, using computers, playing video games, and using cell phones. While using these forms of media daily, children are inundated with advertising which is often focused on less healthy foods. Additionally, the time spent watching television and using various technologies is time that children are being sedentary and not getting the daily recommended 60 minutes of physical activity.

Figure 25 displays overweight and obesity percentages for Columbia County school district students (overall), elementary school students, and middle/high school students. Of Columbia County public school district students, 37.1% are overweight or obese (New York State percentage: 33.7%), and 19.1% are obese (New York State: 17.6%).

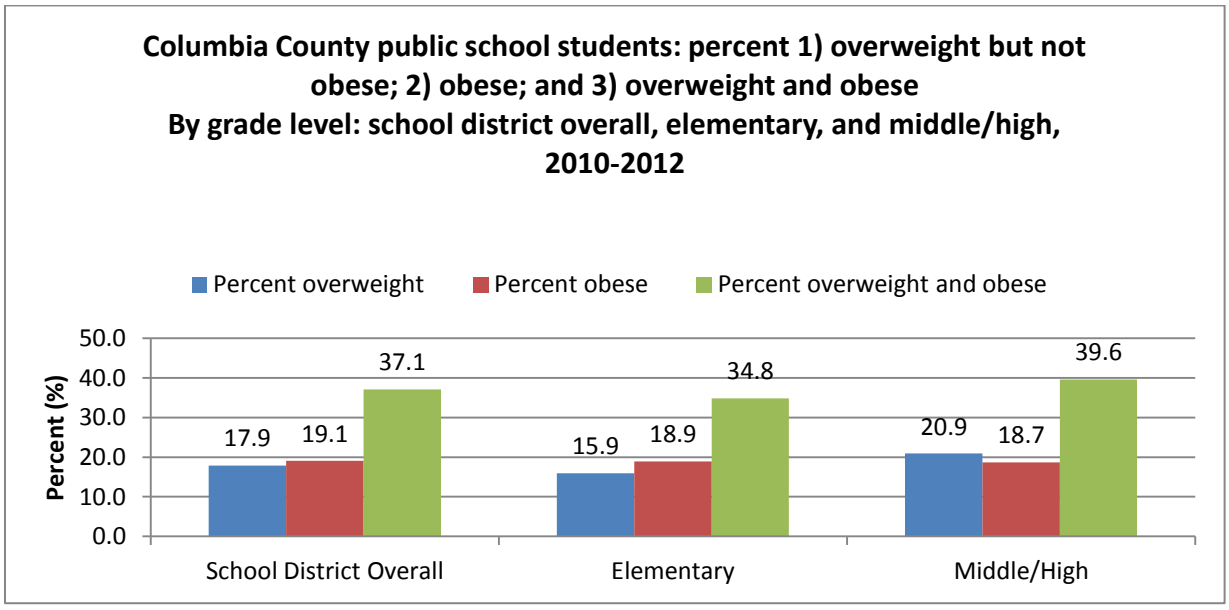

Figure 25: Columbia County public school students: percent 1) overweight but not obese; 2) obese; and 3) overweight and obese; By grade level: school district overall, elementary (pre-K, K, 2nd, and 4th grades), and middle/high (7th and 10th grades). (NYSDOH, Student Weight Status Reporting System, 2013)

The county school district overweight and obesity data can be compared to the Hudson Valley. In the Hudson Valley overall, 15.8% of students (all grades) are overweight, 16.3% are obese, and 32.2% were overweight or obese in the 2010-2012 school years (NYSDOH, Student Weight Status Reporting System).

The following chart (Figure 26) displays overweight and obesity data for each public school district in the county. Hudson City School district has the highest percentage of overweight or obese students (45.6%) compared to the other public school districts.

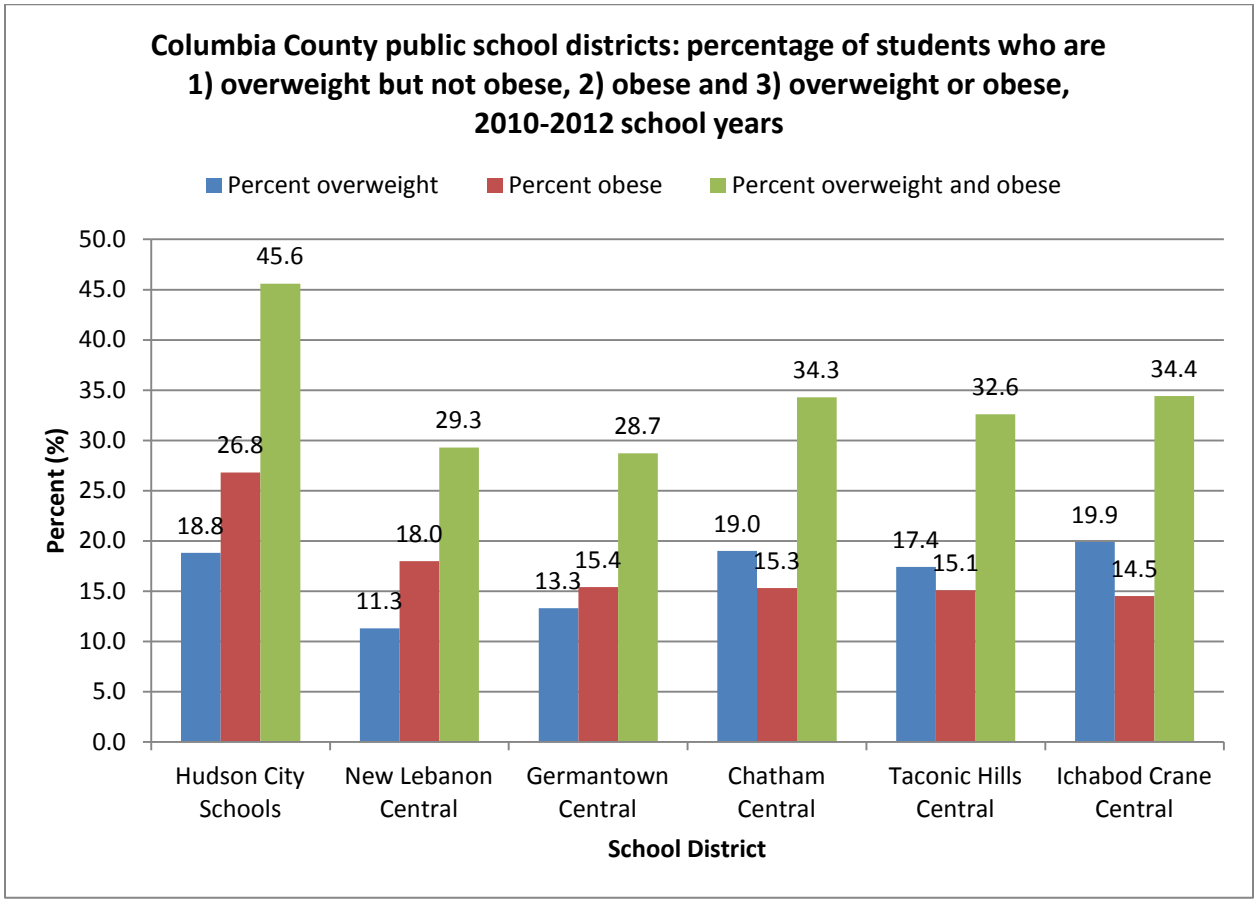

Figure 26: Percent of students 1) overweight, 2) obese, and 3) overweight and obese by Columbia County school district, 2010-2012 (NYSDOH, Student Weight Status Reporting System, 2013)

Figure 27 displays overweight and obesity percentages for each Columbia County public school district, by grade level.

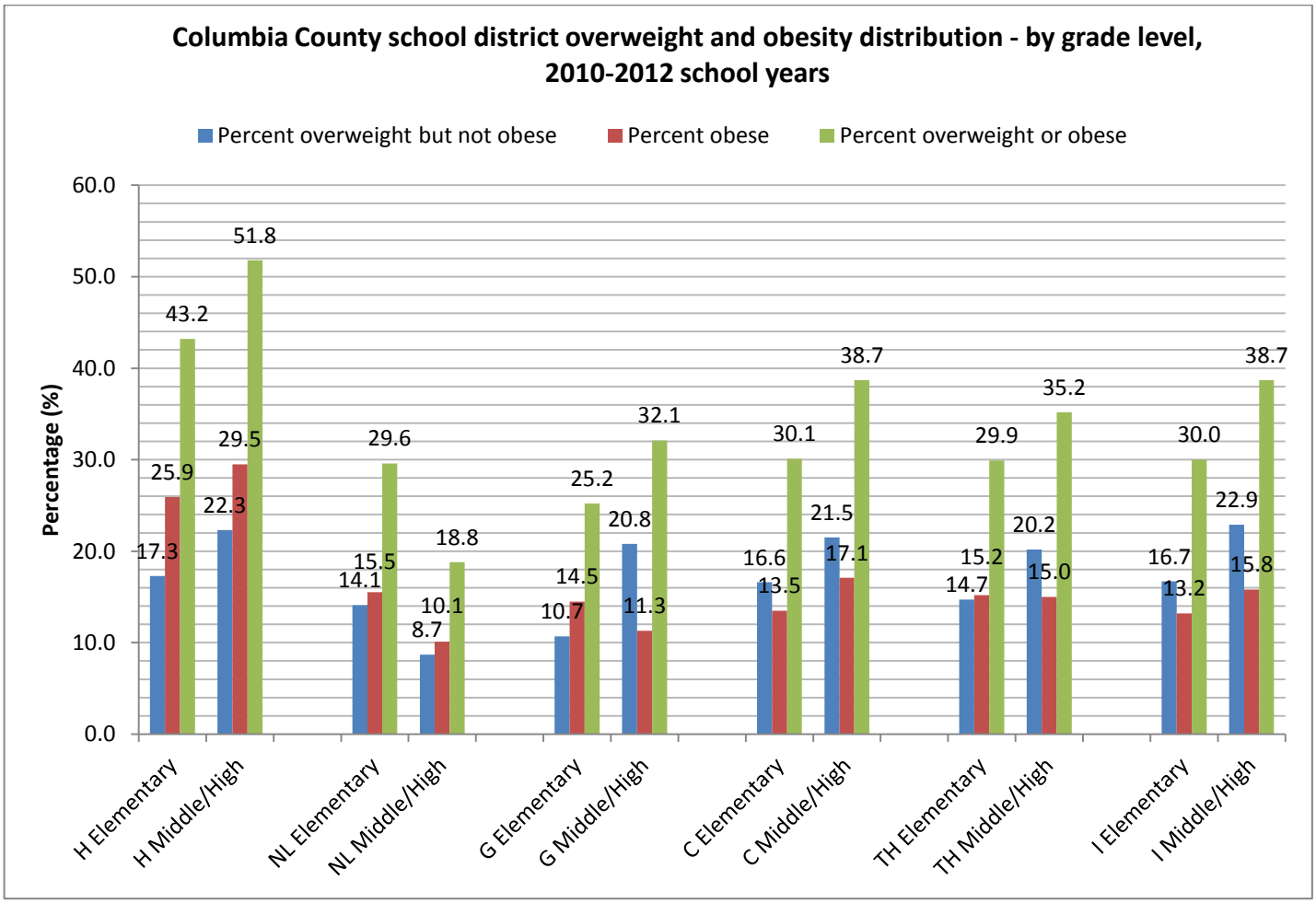

Figure 27: Columbia County school district overweight and obesity distribution – by school district and grade level, 2010-2012 school years. Key: H = Hudson; NL = New Lebanon; G = Germantown; C = Chatham; TH = Taconic Hills; I = Ichabod Crane. (NYSDOH, Student Weight Status Reporting System, 2013)

WIC (the Special Supplemental Nutrition Program for Women, Infants, and Children) provides supplemental foods, nutrition education, and health care referrals for low-income pregnant, breastfeeding, and non-breastfeeding postpartum women, and to infants and children up to age five who are found to be at nutritional risk. The following data presents obesity-related indicators for women and children enrolled in the WIC program.

Table 12: The WIC Program and obesity-related indicators

Obesity Indicator, 2008-2010	Columbia County	Upstate NY
Percentage of pregnant women in WIC who were pre-pregnancy overweight but not obese (BMI 25-<30) (2008-2010 NYS Pregnancy Nutrition Surveillance System - WIC Program Data, as of 2012)	24.8	26.3
Percentage of pregnant women in WIC who were pre-pregnancy obese (BMI 30 or higher) (2008-2010 NYS Pregnancy Nutrition Surveillance System - WIC Program Data, as of 2012)	27.9	26.8

Percentage obese (95th percentile or higher) children in WIC (ages 2-4 years) (2008-2010 NYS Pediatric Nutrition Surveillance System, as of 2012)	18.4	15.2
Percentage of children in WIC viewing TV 2 hours or less per day (ages 2-4 years) (2008-2010 NYS Pediatric Nutrition Surveillance System, as of 2012)	78.0	80.7
Percentage of WIC mothers breastfeeding at least 6 months (2008-2010 NYS Pediatric Nutrition Surveillance System, as of 2012)	24.9	28.7

Lack of breastfeeding support within the community, workplace, and the home also put children at an increased risk of becoming overweight and obese. Research has shown many correlations between the duration of breastfeeding and risk of becoming overweight or obese in childhood. While the exact mechanism has not been identified, there are thoughts regarding the correlation. According to the CDC (2007), it is likely that mothers who exclusively breastfeed choose to have healthier diets and adequate physical activity. This could translate to their children also eating healthier and engaging in adequate physical activity. Biological mechanisms correlating breastfeeding to a decreased risk of obesity are self-regulation, insulin concentrations, and leptin (leptin is the hormone that inhibits appetite and controls body fatness concentrations). Breastfed babies learn self-regulation and have a better understanding of when they are full compared to their formula-fed counterparts. Formula-fed babies have been found to have higher plasma insulin concentrations and a prolonged insulin response. These higher insulin responses stimulate more fat deposits which increase weight gain, obesity, and the risk of developing type II diabetes (CDC, 2007). Also, research shows that infants who had a higher intake of breast milk early in life had better leptin levels relative to their body fat.

Diseases of the Heart

Heart disease is the leading cause of death in Columbia County (refer to Figure 23). The county has a much higher rate of coronary heart disease hospitalizations compared to the rest of the state. It also has a higher rate of congestive heart failure hospitalizations per 10,000 (ages 18+) compared to the rest of the state (Table 13). Stroke mortality and hospitalization rates are also included below.

Table 13: Indicators for heart disease, New York State and Columbia County (Healthy Capital District Initiative, 2013)

Heart Disease Indicator		Columbia County		ROS (rest of state) (excludes NYC)
	Year	Rate	Significance, compared to ROS	Rate
Age-adjusted heart attack hospitalization rate per 10,000	2010	15.5		15.5 NYS
Number:		*47*		
Coronary Heart Disease hospitalizations per 10,000	2007-2009	31.1		4.7
Number:		*266*		

Congestive Heart Failure hospitalizations per 10,000- Ages 18+ years	2008-2010	38.1		26.9
Number:		*186*		
Cerebrovascular (Stroke) Disease mortality per 100,000	2008-2010	36.5		31.9
Number:		*32*		
Cerebrovascular (Stroke) hospitalizations per 10,000	*2008-2010*	*21.1*	*Yes*	*25.3*
Number:		*178*		

In Columbia County, the cardiovascular disease mortality rate for 2008-2010 was 259.5 per 100,000 persons (age-adjusted); the state rate was 250.9 per 100,000. The number of deaths in the county from cardiovascular disease during that time period was as follows: 217 in 2008, 219 in 2009, and 265 in 2010 (average population during that time: 62,240) (NYSDOH Community Health Indicator Reports).

In the County, the diseases of the heart mortality for 2008-2010 was 212.8 per 100,000 (age adjusted); the state rate was 207.6 per 100,000. The number of deaths in the county from cardiovascular disease during that time period was as follows: 175 in 2008, 182 in 2009, and 219 in 2010 (NYSDOH Community Health Indicator Reports).

Within the county, both heart disease and ischemic heart disease mortality vary by region. Between 2006 and 2010, the Greater Hudson Area had the highest heart disease and ischemic heart disease mortality compared to: the county overall, the Northern Area, and the Southern Area. Compared to the state (excluding NYC), the following areas had higher heart disease and ischemic heart disease mortality: the county overall and the Greater Hudson Area (Attachment 3).

Certain racial/ethnic groups have different experiences with heart disease and stroke. In Columbia County and New York State, Blacks have a higher heart disease mortality rate than Whites, and both Blacks and Whites have a higher heart disease morality than Hispanics. Compared to Whites and Hispanics, Blacks have a higher stroke hospitalization rate at both the county and state level. In the county, the coronary heart disease hospitalization rate is highest for Blacks, followed by Whites, and then Hispanics (Table 14).

Table 14: Heart disease and stroke indicators by race/ethnicity, Columbia County and New York State, 2008-2010 (NYSDOH County Health Indicators by Race/Ethnicity, revised 2012)

Key: s = total suppressed for confidentiality; ~ = fewer than 20 events in the numerator -- an unstable rate; *= Hispanics are not excluded from the Black and Asian/Pacific Islander categories. Pacific Islanders are not included in the Asian/Pacific Islander category.

Heart Disease and Stroke Indicators by Race/Ethnicity, 2008-2010	Columbia County					NYS, Excluding New York City				
	Non-Hispanic			Hispanic	Total	Non-Hispanic			Hispanic	Total
	White	Black	Asian/ Pacific Islander			White	Black	Asian/ Pacific Islander		
Diseases of the Heart Mortality per 100,000, Age-adjusted	210.3	295.4~	s	114.6~	212.8	194.7	216.8	79.8	126	196.5
Diseases of the Heart Hospitalizations per 10,000, Age-adjusted	83.2	96.5	35.5~	36.1~	85.6	102.9	130	37	120.5	109.2
Cerebrovascular Disease (Stroke) Mortality per 100,000,	34.3	s	s	s	35.9					

Age-adjusted						31.2	39.3	15.6	23.4	31.9
Cerebrovascular Disease (Stroke) Hospitalizations per 10,000, Age-adjusted	20	32.3	s	9.2~	21.1	23.3	37.7	9.7	28.5	25.3
Coronary Heart Disease Mortality per 100,000, Age-adjusted	162.2	236.7~	s	114.6~	164	143.5	167.6	64.5	100.2	145.1
Coronary Heart Disease Hospitalizations per 10,000, Age-adjusted	29.7	34.2	13.4~	8.6~	30.9	41.4	42	19.4	48	43.7
Congestive Heart Failure Mortality per 100,000, 18+ Years	30.4	0.0~	0.0~	0.0~	27.9	29.7	12.2	3	4.8	25.6
Congestive Heart Failure Hospitalizations per 10,000, Age 18+ Years	38.3	50.9	s	16.1~	38	42.7	53.8	6.4	23.2	41.7

Within the county, stroke mortality varies by region. Between 2006 and 2010, the Northern Area had higher stroke mortality (44.6 per 100,000 persons) compared to: the county overall (38.2 per 100,000), the Greater Hudson Area (41.5 per 100,000), and the Southern Area (23.7 per 100,000). Compared to the state (excluding NYC) stroke mortality rate (32.1 per 100,000), the following areas had a greater stoke mortality rate: the county overall, the Greater Hudson Area, and the Northern Area (Attachment 3).

Also varying by region are hospitalization rates and emergency department visit rates for heart related diseases. Compared to other county regions, between 2006 and 2010, the Greater Hudson Area had higher hospitalization rates for congestive heart failure, coronary heart disease, heart disease, and stroke. The Greater Hudson Area also had higher emergency department visit rates for heart disease, ischemic (coronary) heart disease, congestive heart failure, and stroke. The stroke emergency department visit rate for that region (110.3 per 100,000) was at least 150% higher than the rate for upstate NY (42.4 per 100,000) (Attachment 3).

High Blood Pressure and Cholesterol

Among Columbia County adults, 25.3% overall have high blood pressure; this is similar to the state percentage of 25.7%. Among county adults with high blood pressure, 80.0% take medication for their condition; this is higher than the state percentage of 78.5% (NYSDOH BRFSS, 2008-2009).

Over eighty percent (83.9%) of county adults have ever had their blood cholesterol checked, and 79.3% have had it checked within the past five years (whereas 79.9% of NYS adults have ever had their cholesterol checked, and 77.3% have had it checked within the past five years) (NYSDOH BRFSS, 2008-2009).

Cancer

For the county, the all-cancer incidence rate is 512.9 per 100,000 persons (2007-2009). The state rate is 489.6 per 100,000. In the county, the number of cases of cancer during that time period was: 432 in 2007, 412 in 2008, and 439 in 2009 (average population during that time: 61,954) (2007-2009 NYS Cancer Registry Data, as Of July, 2012).

Columbia County has lower rates of colorectal cancer mortality and breast cancer female mortality than the state, but a higher rate of cervical cancer mortality (Figure 28).

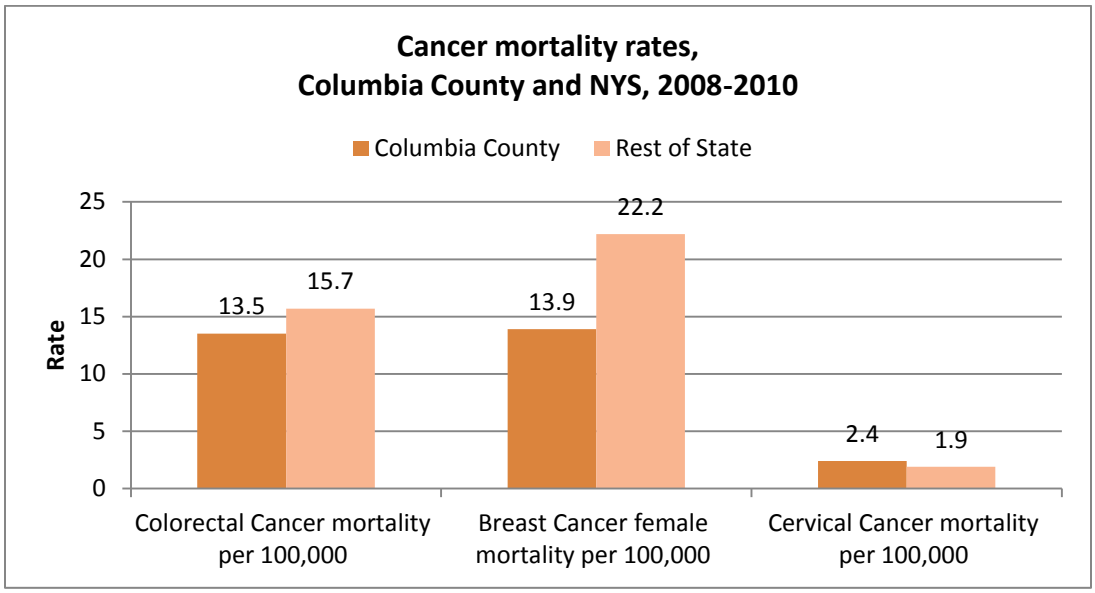

Figure 28: Cancer mortality rates, Columbia County and NYS, 2008-2010 (Healthy Capital District Initiative, 2013)

The following figure displays statistics for early-stage diagnosis of cancers. Compared to the state, the county has a higher percentage of early stage diagnosis of cervical cancer.

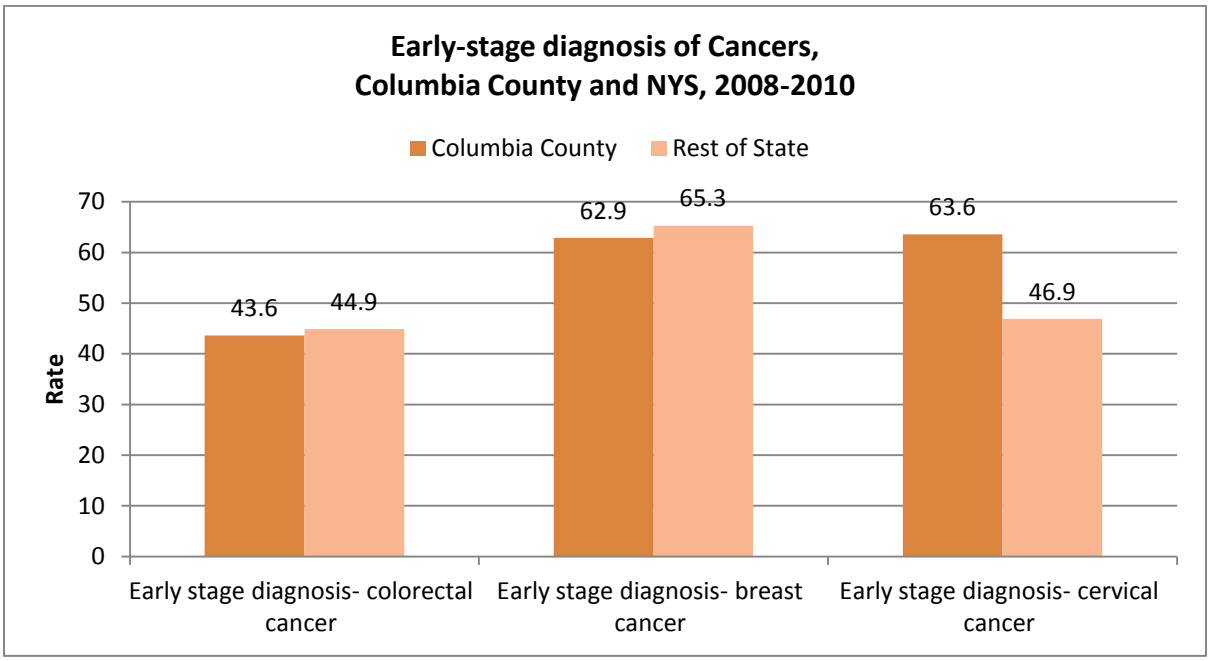

Figure 29: Early-stage diagnosis of some cancers, Columbia County and New York State, 2008-2010 (Healthy Capital District Initiative, 2013)

In Columbia County, just 63.7% of adults ages 50-75 years receive a colorectal cancer screening compared to 68.4% for the rest of the state (NYS 2017 objective is 71.4%) (Healthy Capital District Initiative, 2013).

Within the county, colorectal cancer mortality varies by region. Between 2006 and 2010, the Greater Hudson Area had a higher colorectal cancer mortality rate (24.4 per 100,000 persons) compared to: the county overall (15.8 per 100,000), the Northern Area (8.6 per 100,000), and the Southern Area (12.8 per 100,000). Compared to the state (excluding NYC) colorectal cancer mortality rate (15.1 per 100,000), the following areas had higher colorectal cancer mortality: the county overall and the Greater Hudson Area (Attachment 3).

Overall cancer mortality also varies by region in Columbia County. Between 2006 and 2010, the Greater Hudson Area had higher cancer mortality (184.6 per 100,000) compared to: the county overall (173.5 per 100,000), the Northern Area (152.0 per 100,000), and the Southern Area (143.7 per 100,000). Compared to the state (excluding NYC) cancer mortality rate (166.3 per 100,000), the following areas had higher cancer mortality: the county overall and the Greater Hudson Area (Attachment 3).

Between the years 2006 and 2010, the Greater Hudson Area had the highest cancer hospitalization rates compared to other regions (with the Southern Region experiencing the lowest). Within all county regions, cancer emergency department visit rates were higher than the state rate (excluding NYC) during those same years (Attachment 3).

Respiratory Disease

The county has a high lung cancer incidence (102.9 per 100,000 males and 63.8 per 100,000 females) (Figure 30).

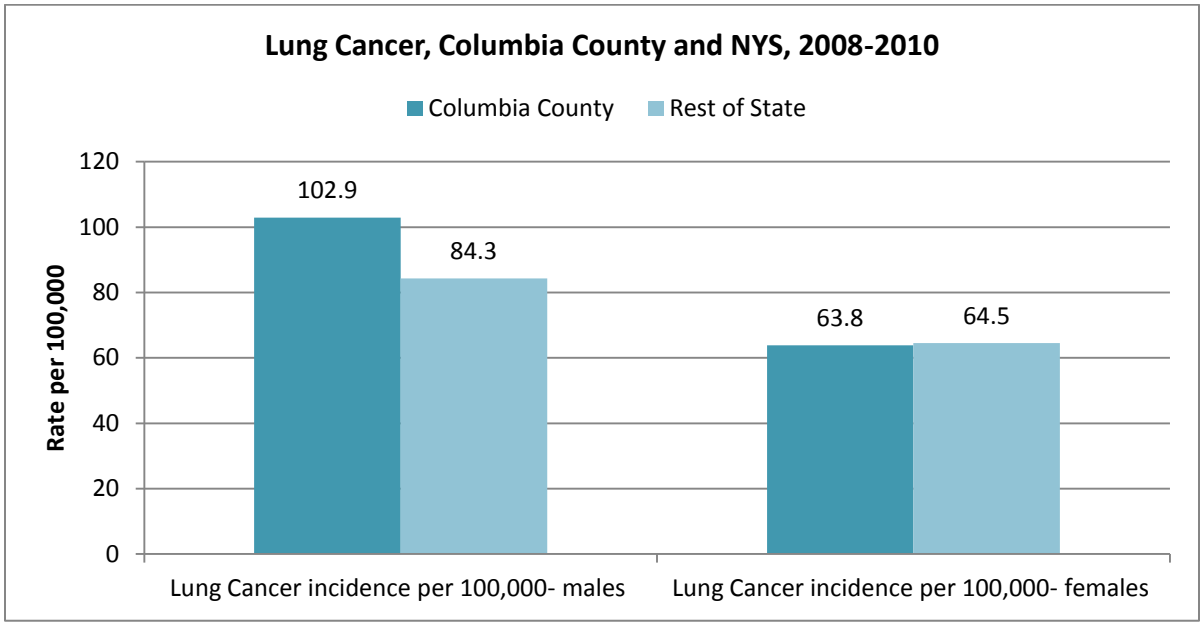

Figure 30: Lung Cancer, males and females, Columbia County and NYS, 2008-2010 (Healthy Capital District Initiative, 2013)

Within the county, lung cancer mortality varies by region. Between 2006 and 2010, the Greater Hudson Area had higher cancer mortality (58.1 per 100,000 persons) compared to: the county overall (54.8 per 100,000), the Northern Area (43.2 per 100,000), and the Southern Area (49.4 per 100,000). Compared to the state (excluding NYC) lung cancer mortality rate (47.4 per 100,000), the following areas had higher lung cancer mortality: the county overall, the Greater Hudson Area, and the Southern Area (Attachment 3).

Cigarette smoking is directly linked to lung cancer, as well as to other respiratory diseases. A high percentage of Columbia County adults smoke cigarettes (23.1%); the New York State rate is 16.8%. (The NYS 2017 objective is 15%) (NYSDOH). 77.1% of adults live in homes where smoking is prohibited (NYSDOH BRFSS, 2008-2009).

Figure 31 displays asthma emergency department visit rates and hospitalization rates for all people and for children.

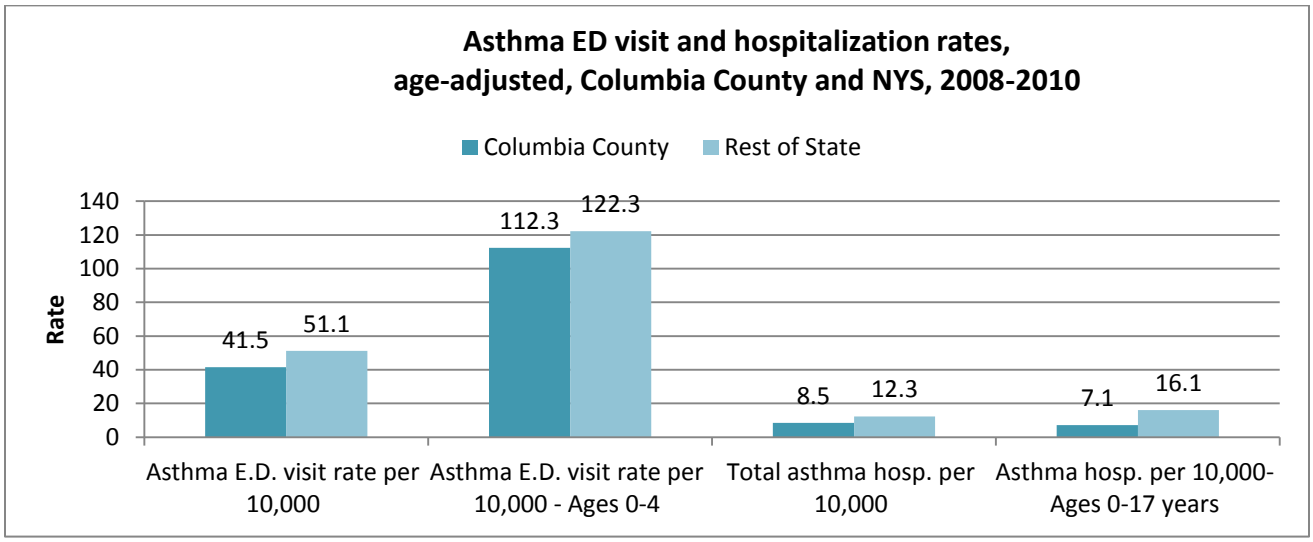

Figure 31: Asthma emergency department visit and hospitalization rates, Columbia County and NYS, 2008-2010 (Healthy Capital District Initiative, 2013)

For the years 2006-2010, asthma emergency department visit rates were much higher for the Greater Hudson Area (872.6 per 100,000 persons) compared to the county overall (456.1 per 100,000), the Northern Area (244.2 per 100,000), the Southern Area (276.8 per 100,000), and the state (458.0 per 100,000) (Attachment 3).

In the county, the number of hospitalizations due to asthma during the years 2008-2010 were as follows: 47 in 2008, 57 in 2009, and 59 in 2010 (2008-2010 SPARCS Data, as of May, 2011).

Asthma hospitalization rates for 2006-2010 were much higher in the Greater Hudson Area (144.3 per 100,000) compared to the county overall (77.1 per 100,000), the Northern Area (47.9 per 100,000), the Southern Area (52.3 per 100,000), and the state (118.5 per 100,000) (Attachment 3).

Respiratory disease hospitalizations and mortality differ by race/ethnicity in Columbia County and New York State (Table 15). In the county, Blacks have higher asthma hospitalizations than Whites and Hispanics (although the rate for Hispanics may be unstable – see table key). Whites have higher chronic obstructive pulmonary disease/chronic lower respiratory disease (COPD/CLRD) hospitalizations and mortality.

Table 15: Respiratory disease and stroke indicators by race/ethnicity, Columbia County and New York State, 2008-2010 (NYSDOH County Health Indicators by Race/Ethnicity, revised 2012)

Key: s = total suppressed for confidentiality; ~ = fewer than 20 events in the numerator -- an unstable rate; *= Hispanics are not excluded from the Black and Asian/Pacific Islander categories. Pacific Islanders are not included in the Asian/Pacific Islander category.

Respiratory Disease Indicators by Race/Ethnicity, 2008-2010	Columbia County					NYS, Excluding New York City				
	Non-Hispanic			Hispanic	Total	Non-Hispanic			Hispanic	Total
	White	Black	Asian/ Pacific Islander			White	Black	Asian/ Pacific Islander		
Asthma Hospitalizations per 10,000, Age-adjusted	7.4	21.8	0.0~	5.3~	8.4	9.1	29.4	4.5	19.9	12.3
Asthma Hospitalizations per 10,000, Age 0-17 Years	5.1~	19.1~	0.0~	0.0~	7.1	10.9	31.5	8	20.7	16.1
COPD/CLRD Hospitalizations per 10,000, 18+ Years	42.4	36.1	s	8.1~	41	41.6	50.5	5.2	28.1	40.8
CLRD/COPD Mortality per 100,000, 18+ Years	92.7	49.3~	0.0~	0.0~	87.7	69.7	24.6	4.9	9.5	59.5

Table 13 also shows that Columbia County has a high rate of CLRD/COPD mortality (87.7 per 100,000, 18+ years) compared to the state (59.5 per 100,000, 18+ years). In the county, the number of deaths from CLRD between the years 2008 and 2010 was as follows: 39 in 2008, 42 in 2009, and 48 in 2010 (2008-2010 NYS Vital Statistics Data, as of February, 2012).

Within the county, COPD/CLRD mortality varies by region. Between 2006 and 2010, the Southern Area had the lowest COPD/CLRD mortality (36.6 per 100,000 persons) compared to the county overall (48.2 per 100,000), the Greater Hudson Area (48.7 per 100,000), and the Northern Area (44.3 per 100,000). Compared to the state (excluding NYC) COPD/CLRD mortality rate for that time (38.0 per 100,000), the following areas had higher COPD/CLRD mortality: the county overall, the Greater Hudson Area, and the Northern Area (Attachment 3).

Between the years 2006-2010, COPD/CLRD hospitalization rates and emergency department rates were highest for the Greater Hudson Area compared to the other county regions and the state (excluding NYC) (Attachment 3).

Diabetes

Approximately 6.6% of Columbia County adults have diabetes (Table 16). Other diabetes-related statistics are included below.

Table 16: Diabetes indicators, Columbia County and New York State (Healthy Capital District Initiative, 2013)

Diabetes Indicator	Year	Columbia County		ROS (rest of state) (excludes NYC)
		Rate	Significance, compared to ROS	Rate
Hospitalizations for short-term complications of diabetes - Ages 6-17 yrs	2008-2010	2.6		3
Number:		*2*		
Hospitalizations for short-term complications of diabetes - Ages 18+ years	2008-2010	4.4		4.8
Number:		*22*		
Percentage of adults with diabetes	2008-2009	6.6 (4.5-8.7)	No	8.5 (8.0-9.1)
Number:		*3,319*		
Diabetes hospitalizations per 10,000 (primary diagnosis)	*2008-2010*	*11.6*	*Yes (Lower)*	*14.3*
Number:		*80*		
Diabetes hospitalizations per 10,000 (any diagnosis)	*2008-2010*	*167.1*	*Yes (Lower)*	*198.2*
Number:		*1,385*		
Diabetes mortality rate per 100,000	*2008-2010*	*10.1*	*Yes (Lower)*	*14.9*
Number:		*9*		

In the county, the number of deaths from diabetes between the years 2008 and 2010 was as follows: 6 in 2008, 5 in 2009, and 17 in 2010. The number of hospitalizations for diabetes (primary diagnosis) was as follows: 68 in 2008, 87 in 2009, and 85 in 2010. The number of hospitalizations for diabetes (any diagnosis) was as follows: 1,384 in 2008, 1,408 in 2009, and 1,363 in 2010 (2008-2010 SPARCS Data as of May, 2011).

Table 17 presents a higher rate of diabetes hospitalizations for Blacks compared to Whites and Hispanics (for the county and the state).

Table 17: Diabetes indicators by race/ethnicity, Columbia County and New York State, 2008-2010
(NYSDOH County Health Indicators by Race/Ethnicity, revised 2012)
Key: s = total suppressed for confidentiality; ~ = fewer than 20 events in the numerator -- an unstable rate; *= Hispanics are not excluded from the Black and Asian/Pacific Islander categories. Pacific Islanders are not included in the Asian/Pacific Islander category.

Diabetes Indicators by Race/Ethnicity, 2008-2010	Columbia County					NYS, Excluding New York City				
	Non-Hispanic			Hispanic	Total	Non-Hispanic			Hispanic	Total
	White	Black	Asian/ Pacific Islander			White	Black	Asian/ Pacific Islander		
Diabetes Mortality per 100,000, Age-adjusted	10.1	s	0.0~	s	10.1	14	26	7.5	14.3	14.9
Diabetes Hospitalizations per 10,000 (*Primary* Dx ICD9 250), Age-adjusted	10.4	31.9	s	15.3~	11.6	11.4	38.8	3.7	19.3	14.3
Diabetes Hospitalizations per 10,000 (*Any* Dx ICD9 250), Age-adjusted	156.1	335.9	162	146.5	167.1	174.3	374.4	77	272.2	198.2
Diabetes Short-term Complications Hospitalizations per 10,000, Age 6-18 Years	3.1~	0.0~	0.0~	0.0~	2.6~	2.7	4.8	0.4~	2.8	3
Diabetes Short-term Complications Hospitalizations per 10,000, Age 18+ Years	4.5	8.2~	0.0~	0.0~	4.5	3.9	14.1	0.7	4.8	4.8

Within the county, diabetes (any diagnosis) hospitalization rates vary by region. Between 2006 and 2010, the Greater Hudson Area had the highest diabetes hospitalization rate (2,432.1 per 100,000 persons) compared to the county overall (1,743.9 per 100,000), Northern Area (1,476.2 per 100,000), Southern Area (993.4 per 100,000), and state (excluding NYC) (1,958.8 per 100,000) (Attachment 3).

Gestational Diabetes

Gestational Diabetes is a form of diabetes that develops during pregnancy. For every 100 pregnancies, two to ten will result in gestational diabetes. According to the CDC (n.d.), risk factors for gestational diabetes include:

- Previous pregnancies with gestational diabetes
- Previous babies born weighing over 9 pounds
- Overweight or obese prior to pregnancy
- Older than 25 years of age
- Family history of diabetes
- Being of African American, Hispanic, American Indian, Alaskan Native, Native Hawaiian, or Pacific Islander race/ethnicity
- Receiving treatment for HIV

Screenings for gestational diabetes are conducted between 24 to 28 weeks of pregnancy using a Glucose Tolerance Test (one hour), followed by a three-hour tolerance test if the results of the one-hour test are

abnormal. There are a number of risks for both mothers and babies with gestational diabetes. Mothers are at an increased risk for: developing type II diabetes, having a larger baby (resulting in more discomfort), needing a cesarean section, a longer recovery time following birth, preeclampsia, and even stillbirth (CDC, n.d., New York State Department of Health [NYSDOH], 2011). Babies that are larger are at an increased risk of birth-related trauma and hypoglycemia, which has its own health risks.

A limitation of studying gestational diabetes is that there are few existing statistical analyses specifically for Columbia County. Available statistics are through WIC, limiting the demographic to a small section of the population. Based on statistics for the entire United States and NYS, we can surmise that Columbia County's gestational diabetes cases are also on the rise. While there have been some improvements in the county's gestational diabetes rates, there has been an increase in cases from 2009 to 2010 (Figure 32).

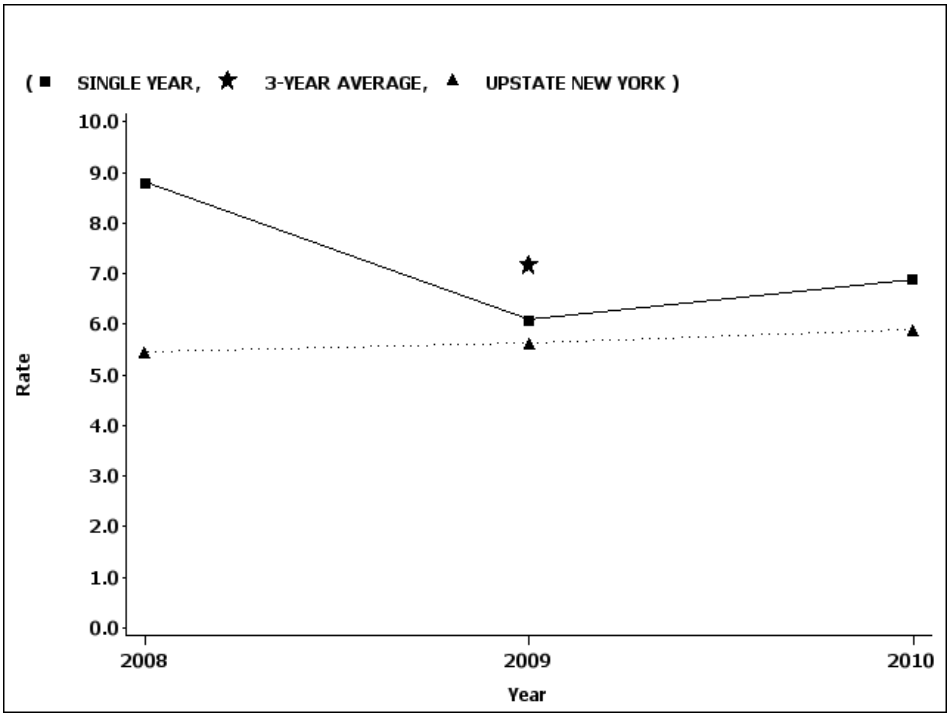

Figure 32: Columbia County percentage of pregnant women in WIC with gestational diabetes, 2008-2010 (NYSDOH, 2012)

Mental Health and Substance Abuse

Mental health refers to an individual's emotional, psychological, and social well-being. Mental health impacts how people think, feel, and act, and it also helps determine how people handle stress, make choices, and relate to others. Mental, emotional, and behavioral (MEB) disorders may be caused by many factors, including biological factors, family history, and life experiences (MentalHealth.gov).

According to the National Institute on Drug Abuse (2012), "addiction is defined as a chronic, relapsing brain disease that is characterized by compulsive drug seeking and use, despite harmful consequences." Addiction and substance abuse change the brain structure and function, and the changes can be long lasting and can lead to many harmful, often self-destructive, behaviors (National Institute on Drug Abuse, 2012).

The National Research Council and Institute of Medicine (2009) states that:

> Many MEB disorders, such as substance abuse and depression, have lifelong effects that include high psychosocial and economic costs for people, their families, schools and communities. The financial costs nationally in terms of treatment services and lost productivity are estimated at $247 billion annually. Beyond the financial costs, MEB disorders interfere with people's ability to accomplish developmental tasks, such as establishing healthy interpersonal relationships, succeeding in school, making their way into the workforce and staying optimally functional once there. Mental and physical health problems are interwoven. Improvements in mental health help improve individuals and populations' physical health.

Just as mental health and physical health problems may be interwoven, so can mental health and substance abuse problems. An individual experiencing both mental illness and substance abuse disorders is said to have co-occurring disorders. In the United States, about 8.9 million adults have co-occurring disorders. Just 7.4% of those receive treatment for both disorders and 55.8% do not receive any treatment at all (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, National Survey on Drug Use and Health, 2008 and 2009). Undiagnosed, untreated, or undertreated co-occurring disorders may lead to severe consequences, including incarceration, homelessness, medical illnesses, suicide, and early mortality (Substance Abuse and Mental Health Services Administration).

Table 18 includes various indicators for mental health and substance abuse in Columbia County. Over 10% of country residents reported poor mental health for 14 or more days in last month (BRFSS, 2008-2009). The county had a large number of drug related hospitalizations for the years 2008 to 2010, and the county has a high rate of binge drinking and alcohol-related motor vehicle injuries and deaths.

Table 18: Indicators for tracking Public Health priority areas: Promote Mental Health and Prevent Substance Abuse (Healthy Capital District Initiative, 2013)

Mental Health/Substance Abuse Indicator	YEAR	Columbia County		ROS (rest of state) (excludes NYC)
		Rate	Significance, compared to ROS	Rate
Adults with poor mental health for 14 or more days in the last month	2008-2009	10.1 (6.6-13.6)	No	10.9 (10.0-11.9)
Number:		*5,079*		
Adult binge drinking during the past month	2008-2009	21.6 (15.7-27.5)	No	19.8 (18.6-21.0)
Number:		*10,862*		
Drug-related hospitalizations per 10,000	2008-2010	20.7		21.8
Number:		*114*		
Newborn drug-related discharge rate per 10,000 newborn discharges	2008-2010	70.6	No	78.4
Number:		*4*		
Cirrhosis mortality rate per 100,000	2008-2010	6.4	No	6.6
Number:		*6*		
Cirrhosis hospitalizations per 10,000	2008-2010	1.9	Yes (Lower)	2.2
Number:		*17*		
Self-inflicted injury hospitalizations per 10,000	2008-2010	5.3	No	6.2
Number:		*31*		
Self-inflicted injury hospitalizations per 10,000- Ages 15-19 years	2008-2010	10.6	No	4.9
Number:		*5*		
Alcohol-related motor vehicle injuries and deaths/100,000	2008-2010	54.6	Yes	50
Number:		*42*		

During the years 2008-2010, the number of drug related hospitalizations in the county was as follows: 103 in 2008, 131 in 2009, and 109 in 2010. The numbers for of newborn drug-related hospitalizations were as follows: 4 in 2008, 3 in 2009, and 4 in 2010 (2008-2010 SPARCS Data as of May, 2011).

During that same time period, the number of deaths in the county from cirrhosis was as follows: 4 in 2008, 4 in 2009, and 4 in 2010 (2008-2010 NYS Vital Statistics Data as of February, 2012).

The numbers for alcohol-related motor vehicle injuries and deaths were: 29 in 2008, 31 in 2009, and 42 in 2010 *2008-2010* (NYS Department of Motor Vehicles Data as of July, 2012).

Between the years 2006 and 2010, the hospitalization rate for self-inflicted injury (any age) was highest for the Greater Hudson Area (77.2 per 100,000 persons) compared to the county overall (54.1 per 100,000), the Northern Area (45.9 per 100,000), the Southern Area (40.5 per 100,000), and the state (excluding NYC) (61.8 per 100,000). The emergency department visit rate for self-inflicted injury (any age) was highest for the Greater Hudson Area (98.8 per 100,000) compared to the county overall (68.0 per 100,000), the Northern Area (55.1 per 100,000), the Southern Area (60.2 per 100,000), and the state (excluding NYC) (64.5 per 100,000) (Attachment 3).

Between those same years, the hospitalization rate for mental disease was highest for the Greater Hudson Area (818.2 per 100,000) compared to the county overall (514.3 per 100,000), the Northern Area (373.0 per 100,000), and the Southern Area (337.3 per 100,000). The emergency department visit rate for mental disease was also highest for the Greater Hudson Area (1,620.0 per 100,000) compared to the county overall (1,072 per 100,000), the Northern Area (819.2 per 100,000), and the Southern Area (874.6 per 100,000) (Attachment 3).

Columbia County had a high suicide death rate between 2008 and 2010 (Figure 33).

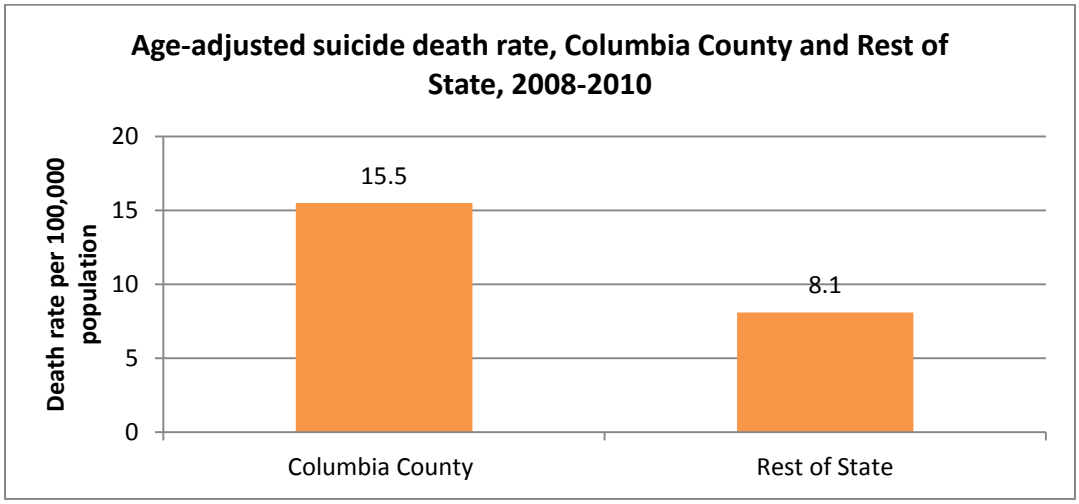

Figure 33: Age-adjusted suicide death rate (all ages), Columbia County and rest of state, 2008-2010 (Columbia County number of suicides: 10) (Healthy Capital District Initiative, 2013)

For ages 15-19, the suicide mortality rate for the county is 7.6 per 100,000 compared to the state's rate of 4.9 per 100,000.

During the years 2008-2010, the numbers of death from suicide were as follows: 15 in 2008, 7 in 2009, and 7 in 2010 (NYSDOH Community Health Indicator Reports).

The suicide rate is highest for Whites compared to other ethnicities, in both Columbia County and New York State (Table 19).

Table 19: Substance abuse and mental health-related indicators by race/ethnicity, Columbia County and New York State, 2008-2010 (NYSDOH County Health Indicators by Race/Ethnicity, revised 2012)

Key: s = total suppressed for confidentiality; ~ = fewer than 20 events in the numerator -- an unstable rate; *= Hispanics are not excluded from the Black and Asian/Pacific Islander categories. Pacific Islanders are not included in the Asian/Pacific Islander category.

Suicide Mortality per 100,000, Age-adjusted, 2008-2010	Columbia County					NYS, Excluding New York City				
	Non-Hispanic			Hispanic	Total	Non-Hispanic			Hispanic	Total
	White	Black	Asian/ Pacific Islander			White	Black	Asian/ Pacific Islander		
	13.2	s	0.0~	0.0~	13.5	8.5	4	3.4	4.5	8.1

The suicide mortality rate in the county varies by region (however, the rates may be unstable because of fewer than 25 events in 5 years). The Southern Area of the county has the highest rate, followed by the Greater Hudson Area (Attachment 3).

The following data from the New York State Office of Alcoholism and Substance Abuse Services (OASAS) Data Warehouse represents trends in substance abuse in Columbia and Greene Counties.

In 2011, there were 1,624 admissions of Columbia and Greene County residents to OASAS certified chemical dependence treatment programs. 847 were from Columbia and 777 were from Greene. During 2011, 1,433 unique Columbia or Greene County residents received treatment.

From 2002 to 2011, the percentage of admissions who reported alcohol as their primary substance decreased from 60% to 41%. Other opiates increased from 2% to 12% (Figure 34). Primary heroin increased from 9% to 18%.

Trend for primary substance at admission, Columbia and Greene Counties, 2002-2011

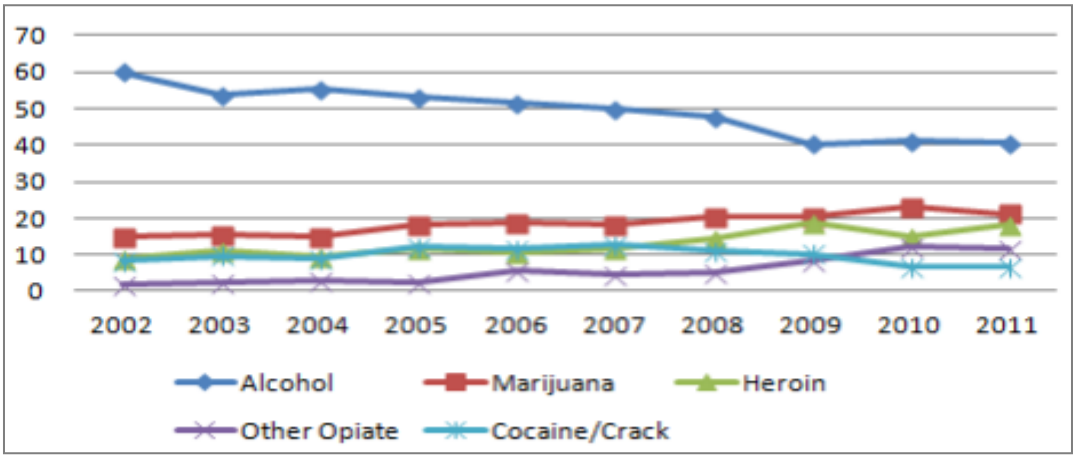

Figure 34: Trend for primary substance at admission, 2002-2011. (NYS OASAS Data Warehouse, for the period January 1, 2011 to December 31, 2011).

Prescription Drug Abuse in the General US Population

In Columbia County, it has been observed by professionals in many fields such as mental health and substance abuse treatment, physical health, law enforcement, education, and others that prescription drug abuse is a serious problem in our communities. Prescription drug abuse is defined by the National Institute on Drug Abuse (2011a), as "the intentional use of a medication without a prescription; in a way other than as prescribed; or for experience or feeling it causes" (para 1). Popular medications abused are those that treat pain, attention deficit disorders, and anxiety. These drugs include, but are not limited to, Oxycontin or Vicodin, Adderall or Ritalin, and Valium or Xanax.

As of 2010, there are approximately 70 million Americans (2.7% of the US population) that use psychotherapeutic drugs for non-medical purposes. The most common medications abused are (NIDA, 2011):

- Pain relievers (abused by approximately 5.1 million individuals)
- Tranquilizers (abused by approximately 2.2 million individuals)
- Stimulants (abused by approximately 1.1 million individuals)
- Sedatives (abused by approximately 0.4 million individuals)

There are various factors driving the prevalence of prescription drug abuse, for example: misconception of the drugs' safety and the increasing availability of the drugs. Many feel that these drugs are safe simply because they are produced by pharmaceutical companies and prescribed by doctors, while others abuse them because they can easily access the drugs at home, school, or the workplace. Other reasons individuals abuse controlled substance are: desires to get high, counter anxiety, decrease pain, address sleep issues, or improve cognition and focus.

Prescription Drug Abuse among Adolescents

Prescription drug abuse is an increasing problem among adolescents. In 2012, 14.8% of high school seniors nationwide reported using prescription drugs for nonmedical purposes (NIDA, 2012). The ease of access of the drugs, the lack of perceived health concerns, and severe health effects in teens makes prescription drug abuse a serious public health issue requiring immediate attention.

Adolescents as young as 12 years of age have greater access to prescription drugs than illicit drugs. Adolescents may obtain prescription drugs for free from friends, family, or neighbors (NYSDOH, 2013). Many of the drugs abused (some listed above) are prescribed to adults to treat common conditions, making them easily accessible by adolescents within the home. Many teens feel that prescription drugs are safer for them than street drugs because they are prescribed by a doctor and pharmaceutical companies make the drugs. When taken as prescribed, many of the drugs are safe and act to control receptors in the brain to control the condition by increasing the dopamine in the brain's pathways. This effect can give a pleasurable feeling, making them popular among teens and also leading to addiction. Depending on the medication being abused, other organs can be affected negatively. Stimulants can cause an increase in heart rate, leading to an increase

in body temperature, irregular heartbeat, heart failure, or seizures. Opioids can cause drowsiness, constipation, and depressed respiration rate (NIDA, 2012).

Local Data Trends for Prescription Drug Abuse

It is a challenge to obtain accurate data on trends in prescription drug abuse, considering many individuals who abuse prescription drugs are not in treatment for substance abuse or mental health. The following data represents figures for those already in treatment for substance abuse. As shown in Figure 35, from 2002 to 2011, the percentage of admissions who had a primary, secondary, or tertiary prescription drug increased from 6% to 26% for Columbia and Greene county residents, 6% to 12% for New York City (NYC) residents and 7% to 26% for rest of state (ROS) residents.

Trend admissions with a primary, secondary, or tertiary prescription drug, Columbia-Greene, NYC, and rest of state, 2002-2011

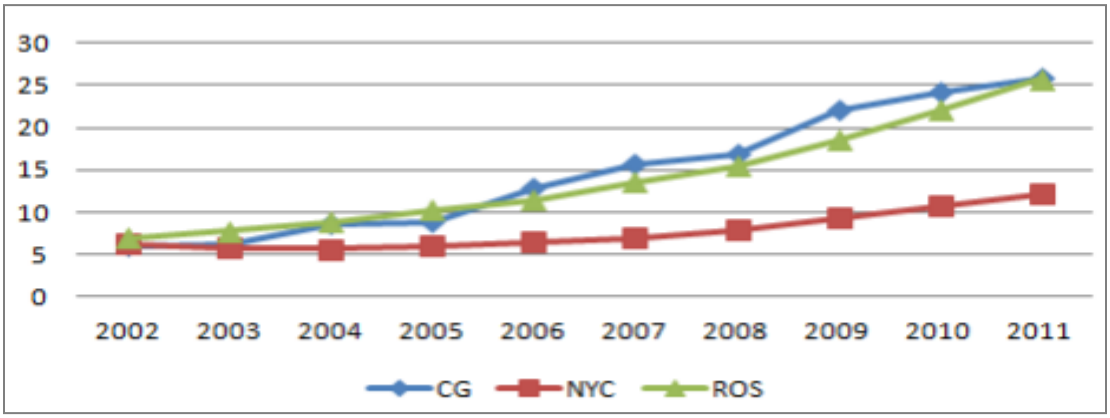

Figure 35: Trend admissions with a primary, secondary, or tertiary prescription drug, 2002-2011. Key: CG = Columbia-Greene; ROS = rest of state. (NYS OASAS Data Warehouse, for the period January 1, 2011 to December 31, 2011).

The following are client characteristics:

- A majority (70%) were male.
- The most common primary substance was alcohol (41%), followed by heroin and other opioids (30%), marijuana (21%), and cocaine/crack (7%).
- Two-thirds (66%) of admissions had two or more problem substances.
- Over a quarter (26%) reported a prescription drug as a primary, secondary, or tertiary substance. 25-34 year olds were most likely to report a prescription drug as a problem substance (Figure 36). This differs from New York City and the rest of the state, where 18-24 year olds were most likely to report a prescription drug as a problem substance.

Admissions with a primary, secondary, or tertiary prescription drug by age, Columbia-Greene, rest of state, and NYC, 2011

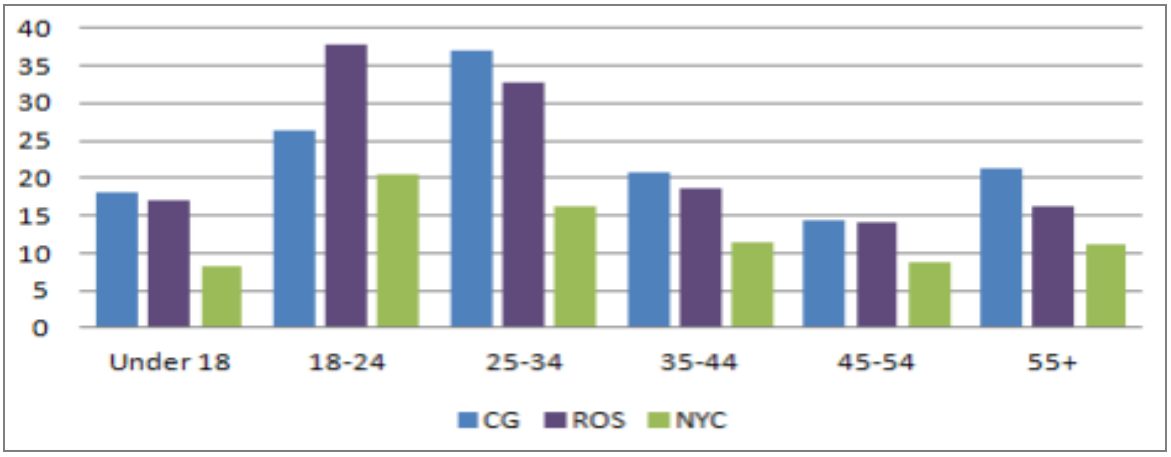

Figure 36: Admissions with a primary, secondary, or tertiary prescription drug by age, 2011. Key: CG = Columbia-Greene; ROS = rest of state. (NYS OASAS Data Warehouse, for the period January 1, 2011 to December 31, 2011).

- The most common prescription drugs reported for Columbia and Greene County residents were opioid pain relievers, followed by benzodiazepines.
- 40% of admissions reported a primary, secondary, or tertiary opioid.
- 7% were homeless.
- 4% reported being a veteran.
- The most common referral source was criminal justice (26%), followed by self (22%), other CD programs (18%), health care/social services (15%), and CD prevention/intervention (2%).
- Over half of discharges paid with Medicaid (52%), followed by private insurance (18%), self-pay (10%), DSS Congregate Care (5%), none (5%), and other (8%).

The Health of Women and Children

The health of mothers and children is vital to the health of a community. The figure below displays the number of live births and the birth rate in the county between the years 2003 and 2011. Since 2003, the number of live births and the birth rate have declined.

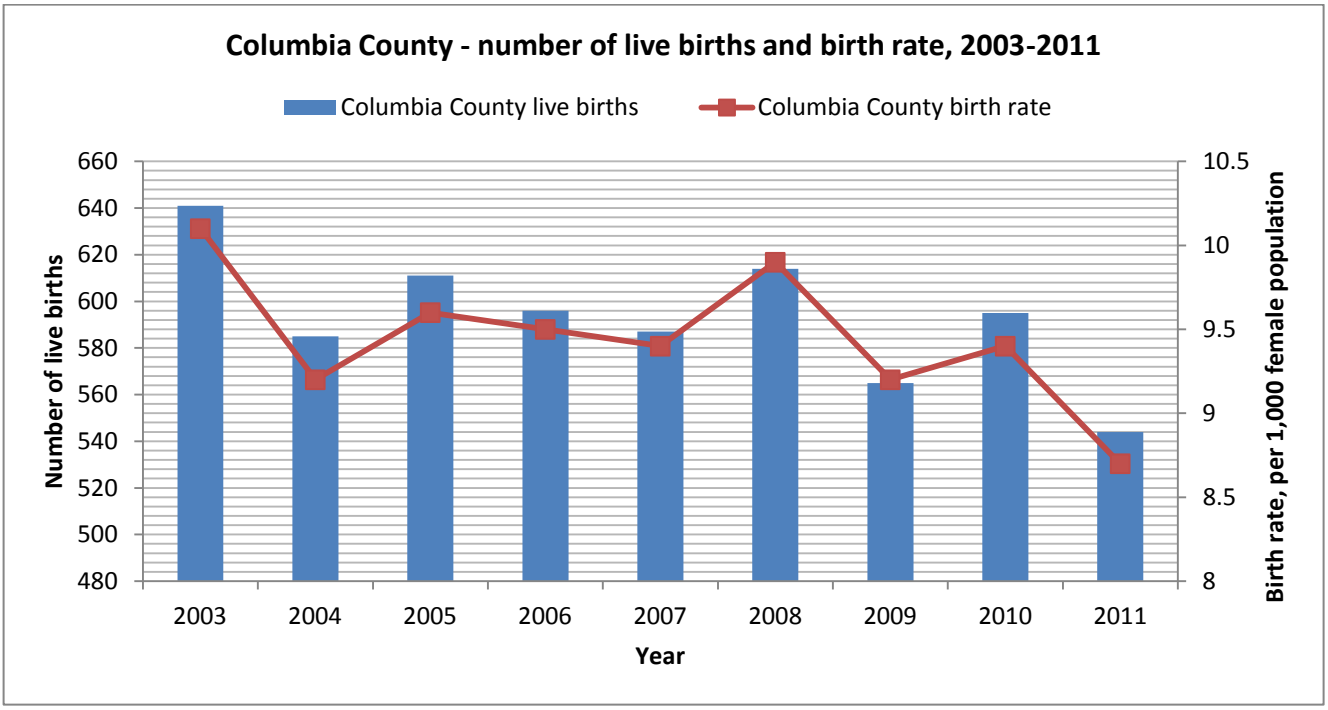

Figure 37: Columbia County number of live births and birth rate, 2003-2011; The birth rate is the number of live births per 1,000 population in a given time period (NYSDOH, Vital Statistics of New York State)

Indicators for tracking "Promote Healthy Women, Infants, and Children" are displayed below. The county falls below the NYS 2017 objective for percentage of children who have had recommended number of well child visits in government sponsored insurance programs, percentage of children with any kind of health insurance, and percentage of women with health coverage. Third grade children of low-income have over twice the rate of untreated tooth decay. Compared to the NYS 2017 objective, the county has a higher percentage of unintended pregnancy among live births and a high percentage of live births that occur within 24 months of a previous pregnancy.

Table 20: Indicators for tracking Public Health priority areas: Promote Healthy Women, Infants, and Children (NYSDOH, State and County Tracking Indicators for the Priority Areas, revised 2013)

Promote Healthy Women, Infants, and Children Indicator	Data Years	Columbia County	NYS	NYS 2017 Objective
Percentage of preterm births	2008-2010	10.9	12	10.2
Ratio of Black non-Hispanics to White non-Hispanics		*1.45*	*1.61*	*1.42*
Ratio of Hispanics to White non-Hispanics		*1.13*	*1.25*	*1.12*
Ratio of Medicaid births to non-Medicaid births		*1.31*	*1.1*	*1*
Percentage of infants exclusively breastfed in the hospital	2008-2010	55.3	42.5	48.1
Ratio of Black non-Hispanics to White non-Hispanics		*0.57*	*0.5*	*0.57*

Ratio of Hispanics to White non-Hispanics		*0.94*	*0.55*	*0.64*
Ratio of Medicaid births to non-Medicaid births		*0.86*	*0.57*	*0.66*
Maternal mortality rate per 100,000 births	2008-2010	0.0*	23.3	21
Percentage of children who have had the recommended number of well child visits in government sponsored insurance programs	2011	70.4	69.9	76.9
Percentage of children ages 0-15 months who have had the recommended number of well child visits in government sponsored insurance programs		89.7	82.8	91.3
Percentage of children ages 3-6 years who have had the recommended number of well child visits in government sponsored insurance programs		84.8	82.8	91.3
Percentage of children ages 12-21 years who have had the recommended number of well child visits in government sponsored insurance programs		59.7	61	67.1
Percentage of children with any kind of health insurance - Ages 0-19 years	2010	94.0 (92.7-95.3)	94.9 (94.5-95.3)	100
Percentage of third-grade children with evidence of untreated tooth decay	2009-2011	21.2 (16.3-26.2)	24.0 (22.6-25.4)	21.6
Ratio of low-income children to non-low income children		*2.33*	*2.46*	*2.21*
Adolescent pregnancy rate per 1,000 females - Ages 15-17 years	2008-2010	16.5	31.1	25.6
Ratio of Black non-Hispanics to White non-Hispanics		*2.75+*	*5.74*	*4.9*
Ratio of Hispanics to White non-Hispanics		*1.93+*	*5.16*	*4.1*
Percentage of unintended pregnancy among live births	2011	30.9	26.7	24.2
Ratio of Black non-Hispanics to White non-Hispanics		*1.86*	*2.09*	*1.88*
Ratio of Hispanics to White non-Hispanics		*1.30+*	*1.58*	*1.36*
Ratio of Medicaid births to non-Medicaid births		*1.34*	*1.69*	*1.56*
Percentage of women with health coverage - Ages 18-64 years	2010	86.3 (84.3-88.3)	86.1 (85.8-86.4)	100
Percentage of live births that occur within 24 months of a previous pregnancy	2008-2010	21.2	18	17

Birth-related indicators by race and ethnicity are displayed below (Table 21). Overall in Columbia County, there are 591 births per year, with the majority (479) being Whites. Different groups have different rates of prenatal care in the first trimester. Whites have the highest percentage (75.5%) and Hispanics (of any race) the lowest (58.4%). Only 52.8% of Hispanics in the county have adequate prenatal care. Although the county rates are unstable, according to 2008-2010 Census data, the infant mortality rate is 4.2 per 1,000 live births for Whites and about 6.8 per 1,000 live births for all groups overall.

Table 21: Birth-related indicators by race/ethnicity, Columbia County and New York State, 2008-2010
(NYSDOH County Health Indicators by Race/Ethnicity, revised 2012)

Key: s = total suppressed for confidentiality; ~ = fewer than 20 events in the numerator -- an unstable rate; *= Hispanics are not excluded from the Black and Asian/Pacific Islander categories. Pacific Islanders are not included in the Asian/Pacific Islander category; Pregnancies: the sum of live births, spontaneous fetal deaths for all gestational ages, and induced abortions; Pregnancy rate: the number of pregnancies per 1,000 female population age 15-44 in a given time period; Fertility rate: the number of live births per 1,000 female population age 15-44 in a given time period.

Birth-Related Indicators, 2008-2010	Columbia County					NYS, Excluding New York City				
	Non-Hispanic			Hispanic	Total	Non-Hispanic			Hispanic	Total
	White	Black	Asian/ Pacific Islander			White	Black	Asian/ Pacific Islander		
Number of Births per Year (3 Year Average)	479	39	9	45	591	84,053	12,424	5,273	20,182	125,219
Percent Births with Early (1st Trimester) Prenatal Care	75.5	61.4	66.7~	58.4	72.5	80.4	61.1	75.2	63.0	75.2
Percent Adequate Prenatal Care (Kotelchuck Index)	70.6	60.7	75.0~	52.8	68.3	73.6	52.3	67.1	56.6	68.2
Percent Premature Births (< 37 Weeks Gestation)	10.2	14.8~	s	11.5~	10.9	10.2	16.4	10.6	12.5	11.3
Percent Low Birthweight Births (< 2.5 Kg)	7.6	10.3~	15.4~	6.9~	8.0	6.8	13.3	8.5	7.5	7.7
Teen (Age 15-17) Pregnancy Rate per 1,000	13	32.6~	0.0~	24.9~	16.3	11.4	47.6	3.8	45.8	20.4
Total Pregnancy Rate per 1,000 Age 15-44 Females	63.2	131.2	45.3	170.5	72.1	64.9	103.4	67.3	123.6	78.1
Fertility Rate per 1,000 (All Births/Female Population 15-44)	52.8	83	38	130.8	58.3	52.5	58.4	58.4	96.7	59
Infant Mortality per 1,000 Live Births	4.2~	s	0.0~	s	6.8~	4.5	14.9	2.4	5.3	5

For zip-code level perinatal data, please refer to NYSDOH:
http://www.health.ny.gov/statistics/chac/perinatal/county/columbia.htm.

Breastfeeding

Breastfeeding provides many benefits to both mother and baby. Breastfeeding is very rich in nutrients and antibodies, which help to build a baby's immune system. Breast milk changes as a baby grows to help the baby grow while still providing nutrients and antibodies. Breast milk is easier for babies to digest, fights disease, can help a family save money, can be easier than formula feeding, and has many benefits for mothers (Office of Women's Health [OWH], n.d.).

Breastfeeding helps reduce the risk of type II diabetes, breast and ovarian cancer, and postpartum depression in women. Mothers may miss less work because babies will have fewer sick days. Breastfeeding also helps mothers lose weight gained during pregnancy. As previously mentioned, research has shown a link between the duration of breastfeeding and risk of becoming overweight or obese in childhood.

Breastfeeding research shows that if families were to feed babies exclusively breast milk for six months, nearly 1,000 infant deaths could be prevented. The United States would also save $13 billion per year in medical costs for infants. Another benefit of breastfeeding is that it benefits the environment by producing less waste than formula, which produces much waste, including cans and plastic bottle supplies (OWH, n.d.).

Among infants born at Columbia Memorial Hospital, less are fed any breast milk compared to infants born statewide. "Fed any breast milk" refers to both infants who were fed only breast milk (by any method -- from the breast, bottle, cup or feeding tube) and infants who were given both breast milk and formula, sugar water, or other liquids. Also, less are exclusively breastfed (infants who were fed only breast milk (i.e., no formula or water) since birth) compared to statewide. Columbia Memorial Hospital and statewide have similar rates of breastfed infants supplemented with formula (this refers to: among infants fed any breast milk, the percentage who were also fed (supplemented with) formula).

Table 22: Infant feeding method, Columbia Memorial Hospital and Statewide (*Based on live born infants, excluding infants who were admitted to the Neonatal Intensive Care Unit or transferred to or from another hospital; **Percentage is based only on infants who were fed any breast milk) **(NYSDOH Department of Health, Hospital Profile)**

Infant Feeding Method*, 2011	Columbia Memorial Hospital		Statewide
	#	%	%
Fed any breast milk	291	64.5%	82.7%
Fed exclusively breast milk	143	31.7%	39.7%
Breastfed infants supplemented with formula**	148	50.9%	51.9%

Lead exposure and poisoning is a great concern in Columbia County. The incidence rate per 1,000 among children <72 months of age with a confirmed blood lead level ≥10µg/d is 13.0 for Columbia County and 8.0 for upstate NY. The follow figure displays lead screening data for children born in 2007 in Columbia County and in upstate NY. Columbia County falls below upstate NY for lead testing at each age benchmark.

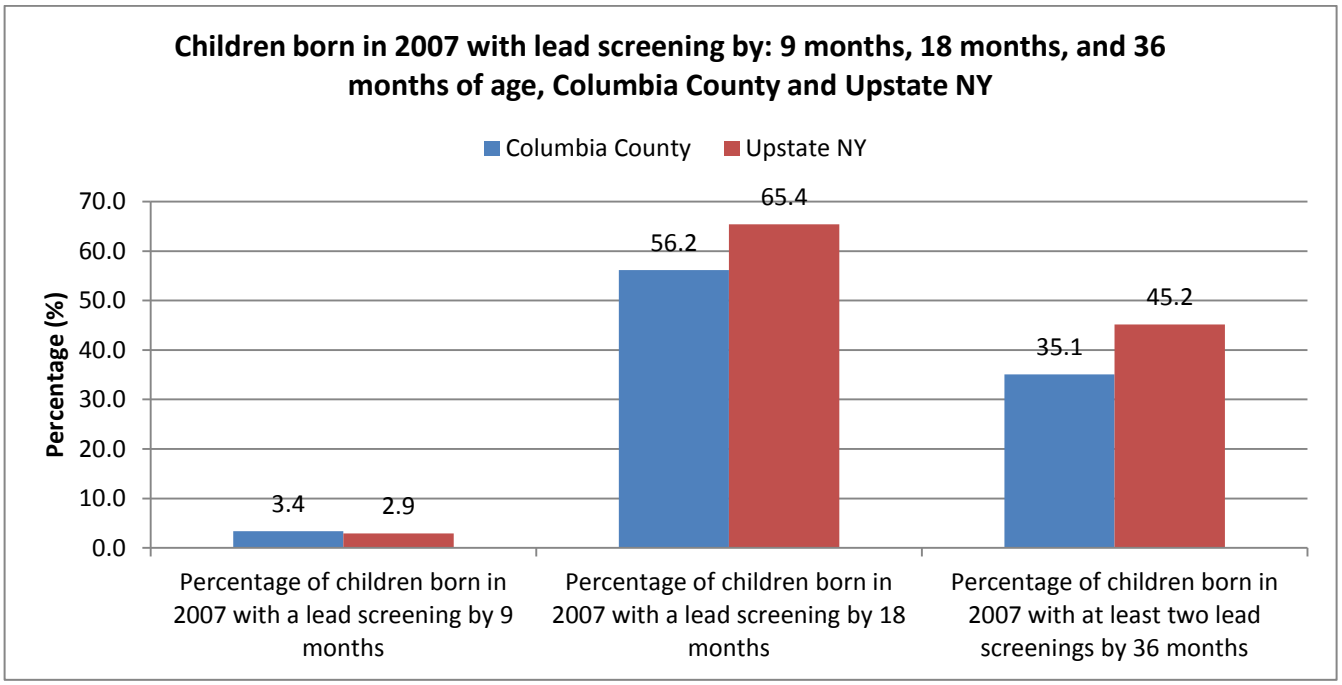

Figure 38: Children born in 2007 with lead screening by: 9 months, 18 months, and 36 months of age, Columbia County and Upstate NY (2008-2010 NYS Child Health Lead Poisoning Prevention Program Data)

There are several local services for maternal child health and some examples follow. The CCDOH Maternal Child Health Division provides nursing support and education during a woman's pregnancy, assistance with obtaining resources, health assessments of the mother and baby after delivery at home visits, and breastfeeding support. The Perinatal Nurse Navigator Program, a partnership with Catskill Women's Health, provides prenatal support, education, and services to women in Columbia County. Within CCDOH, there is also a lead poisoning prevention program, a Children with Special Healthcare Needs Program, and a Physically Handicapped Children's Program. The CCDOH Early Intervention and Preschool Program coordinates services for children with developmental delays.

The local WIC office at Catholic Charities of Columbia and Greene Counties provides women, infants, and children with nutritional supplementation, nutrition education, and breastfeeding education.

Environmental Health

The following are environmental health-related indicators (Table 23). Falls and assault are categorized under environmental health and also under injury (see next section). Columbia County has a high rate of occupational injuries (among adolescents ages 15-19 years) treated in emergency department compared to the state. The county has a lower percentage of population that lives in a Climate Smart Community and a lower percentage of commuters who use alternate modes of transportation compared to the state. The county also has a scarcity of community water systems with optimally fluoridated water.

Table 23: Indicators for tracking Public Health priority areas: Promote a Healthy and Safe Environment (NYSDOH, State and County Tracking Indicators for the Priority Areas, revised 2013)

Key: s = total suppressed for confidentiality; ~ = fewer than 20 events in the numerator -- an unstable rate; *= Hispanics are not excluded from the Black and Asian/Pacific Islander categories. Pacific Islanders are not included in the Asian/Pacific Islander category.

Environmental Health Indicator	Data Years	Columbia County	NYS	NYS 2017 Objective
Rate of hospitalizations due to falls per 10,000 - Ages 65+ years	2008-2010	186.7	204.6	Maintain
Rate of emergency department visits due to falls per 10,000 - Ages 1-4 years	2008-2010	592.8	476.8	429.1
Assault-related hospitalization rate per 10,000	2008-2010	1.9	4.8	4.3
Ratio of Black non-Hispanics to White non-Hispanics		4.15+	7.43	6.69
Ratio of Hispanics to White non-Hispanics		s	3.06	2.75
Ratio of low income ZIP codes to non-low income ZIP codes		0.00+	3.25	2.92
Rate of occupational injuries treated in ED per 10,000 adolescents - Ages 15-19 years	2008-2010	73.6	36.7	33
Percentage of population that lives in a jurisdiction that adopted the Climate Smart Communities pledge	2012	5.7	26.7	32
Percentage of commuters who use alternate modes of transportation	2007-2011	22.1	44.6	49.2
Percentage of population with low-income and low access to a supermarket or large grocery store	2010	4.6	2.5	2.24
Percentage of homes in Healthy Neighborhood Program that have fewer asthma triggers during the home revisits	2008-2011	NA	12.9	20
Percentage of residents served by community water systems with optimally fluoridated water	2012	0.5	71.4	78.5

Injuries

The following are injury-related indicators by race/ethnicity. Within the county, Whites have a higher motor-vehicle related mortality, unintentional injury mortality, unintentional injury hospitalization, and fall-related hospitalization compared to other races/ethnicities.

Table 24: Injury-related indicators by race/ethnicity, Columbia County and New York State, 2008-2010
(NYSDOH County Health Indicators by Race/Ethnicity, revised 2012)

Key: s = total suppressed for confidentiality; ~ = fewer than 20 events in the numerator -- an unstable rate; *= Hispanics are not excluded from the Black and Asian/Pacific Islander categories. Pacific Islanders are not included in the Asian/Pacific Islander category.

Injury-Related Indicators, 2008-2010	Columbia County					NYS, Excluding New York City				
	Non-Hispanic			Hispanic	Total	Non-Hispanic			Hispanic	Total
	White	Black	Asian/ Pacific Islander			White	Black	Asian/ Pacific Islander		
Motor Vehicle-Related Mortality per 100,000, Age-adjusted	13.8	0.0~	0.0~	s	13.4	8.1	6.6	2.5	7.6	8
Unintentional Injury Mortality per 100,000, Age-adjusted	31.4	s	0.0~	s	30.4	26.9	20.1	9.4	20.7	26.4
Unintentional Injury Hospitalizations per 10,000, Age-adjusted	56.2	40.2	s	33.3~	56.9	62.2	55.7	20	63.8	65.1
Poisoning Hospitalizations per 10,000, Age-adjusted	7	11.0~	0.0~	14.3~	7.6	9.6	12.6	2.1	7.2	10.2
Fall Hospitalizations per 10,000, Age 65+ Years	188.5	45.2~	0.0~	69.0~	183.6	221.5	99.3	57.7	200.2	215.3

Motor-vehicle accident related mortality was highest for the Southern Area of the county for the years 2006 to 2010. The county overall has a higher motor-vehicle accident related mortality compared to the state (excluding NYC). Motor-vehicle accident related hospitalizations and emergency department visits also vary by region. Between 2006 and 2010, the Southern Area had the highest hospitalization rate for motor-vehicle accidents compared to the other county regions and upstate NY. The Greater Hudson Area had the highest motor-vehicle accident related emergency department visit rates compared to the other county regions and upstate NY (Attachment 3).

Between 2006 and 2010, unintentional injury mortality was highest for the Southern Area of the county compared to the other county regions and the state. The rates for the county overall, the Northern Area, and the Southern Area were greater than the rate for upstate NY (Attachment 3).

The unintentional injury hospitalization rates and emergency department visit rates vary by county region and by age group. Between 2006 and 2010, the unintentional injury hospitalization rate for ages 0-14 was highest for the Southern Area compared to other county regions; the rate for ages 15-24 was highest for the Northern Area compared to other county regions; and the rate for ages 65 and older was highest for the Greater Hudson Area. The unintentional injury emergency department visit rate for all age groups was highest for the Greater Hudson Area compared to other county regions and upstate NY (Attachment 3).

Between the years 2006 and 2010, the hospitalization rate for falls (all ages) was highest for the Greater Hudson Area (400.4 per 100,000 persons) compared to the county overall (350.8 per 100,000), the Northern Area (340.2 per 100,000), the Southern Area (272.6 per 100,000), and the state (excluding NYC) (382.6 per

100,000). The emergency department visit rate for falls (all ages) was also highest for the Greater Hudson Area (3,393.4 per 100,000) compared to the county overall (2,468.6 per 100,000), the Northern Area (2,014.6 per 100,000), the Southern Area (2,070.9 per 100,000), and the state (excluding NYC) (2,441.1 per 100,000). The overall county emergency department visit rate for falls (all ages) was also higher than that for upstate NY (Attachment 3).

For ages 65 and older, between 2006 and 2010, the falls-related hospitalization rate was highest for the Northern Area of the county compared to other county regions. For that same age group, the emergency department visit rate for falls was highest for the Greater Hudson Area (3,867.3 per 100,000) compared to the county overall (3,288.1 per 100,000), the Northern Area (2,982.6 per 100,000), the Southern Area (2,139.3 per 100,000), and the state (excluding NYC) (3,732.8 per 100,000) (Attachment 3).

Assault hospitalization rates also vary by region, with the Greater Hudson Area having the highest rate compared to the other county regions and the state. The Greater Hudson Area has a much higher assault-related emergency department visit rate (619.8 per 100,000) compared to the county overall (352.4 per 100,000), the Northern Area (221.1 per 100,000), the Southern Area (196.1 per 100,000), and the state (excluding NYC) (390.1 per 100,000) (Attachment 3).

Occupational Injuries

Occupational injuries are an important issue for both the private and public sectors. According to the CDC (2013e), an estimated 139,064,000 civilian workers were employed in both the private and public sectors in the US overall in 2010. In 2010, there were an estimated 3.9 million workers that suffered a non-fatal occupational injury or illness (CDC, 2013f). These occupational injuries cost upwards of $74 billion in 2009 for workers' compensation insurance, lost wages and productivity, medical expenses, and the personal and societal costs (CDC, 201f). Injuries can be as minor as a small laceration, to as serious as head injuries or other injuries which may lead to death.

Young adults, age 24 and younger, constituted 13% of the workforce in 2010 (CDC, 2013f). Young adults account for a high frequency of occupational injuries due to the nature of typical work environments, such as restaurant settings, which can result in falls, cooking equipment injury, and injury from tools. Young adults are also less inexperienced than more mature adults and they lack proper safety training. These factors may account for the high rates of occupational injuries.

In Columbia County, occupational injury rates are higher than those for New York State overall (excluding NYC). The New York State work-related hospitalization rate for individuals 16 years of age and older is 19.7 per 10,000 persons, while Columbia County has a rate of 37.7 per 10,000. For occupational injuries treated in the emergency department (ages 15 to 19), the New York State rate is 36.7 per 10,000, while the Columbia County rate is 73.6 per 10,000.

Table 25: Occupational injury-related indicators Columbia County and New York State (excluding NYC), 2008-2010 (Healthy Capital District Initiative, 2013)

Occupational Injury Indicator	Year	Columbia County	ROS
Work-related hospitalizations, rate per 10,000 employed, ages 16+	2008-2010	37.7	19.7
Rate (per 10,000) of occupational injuries treated in ED, ages 15-19 years	2008-2010	73.6	36.7

More research is needed regarding the specific occupations most affected and specific types of injuries before county-level prevention measures can be identified.

Immunization Rates, Sexually Transmitted Diseases, and Vaccine-Preventable Diseases

The following indicators are measures of immunizations and sexually transmitted diseases. Compared to the NYS 2017 objective, Columbia County has a lower percentage of children with the 4:3:1:3:3:1:4 immunization series and a lower percentage of adolescent females with 3-dose HPV immunization.

Table 26: Indicators for tracking Public Health priority areas: Immunization Rates and Rates of Sexually Transmitted Diseases (NYSDOH, State and County Tracking Indicators for the Priority Areas, revised 2013)

Key: s = total suppressed for confidentiality; ~ = fewer than 20 events in the numerator -- an unstable rate; *= Hispanics are not excluded from the Black and Asian/Pacific Islander categories. Pacific Islanders are not included in the Asian/Pacific Islander category.

Indicator	Data Years	Columbia County	NYS	NYS 2017 Objective
Percentage of children with 4:3:1:3:3:1:4 immunization series - Ages 19-35 months	2011	46.1	47.6	80
Percentage of adolescent females with 3-dose HPV immunization - Ages 13-17 years	2011	25.8	26	50
Age-adjusted percentage of adults with flu immunization - Ages 65+ years	2008-2009	69.9 (62.9-76.9)	75.0 (71.5-78.5)	66.2
Newly diagnosed HIV case rate per 100,000	2008-2010	5.4	21.6	14.7

Difference in rates (Black and White) of new HIV diagnoses		s	59.4	45.7
Difference in rates (Hispanic and White) of new HIV diagnoses		s	31.1	22.3
Gonorrhea case rate per 100,000 women - Ages 15-44 years	2010	117.5	203.4	183.1
Gonorrhea case rate per 100,000 men - Ages 15-44 years	2010	101	221.7	199.5
Chlamydia case rate per 100,000 women - Ages 15-44 years	2010	832	1619.8	1458
Primary and secondary syphilis case rate per 100,000 males	2010	0.0*	11.2	10.1
Primary and secondary syphilis case rate per 100,000 females	2010	0.0*	0.5	0.4

According to the 2008-2009 BRFSS telephone survey, compared to New York State, Columbia County has lower rates of people reporting having had a flu shot in the past 12 months; this includes males (31.0% in Columbia County compared to 40.0% in New York State), females (40.2% compared to 43.1%), White non-Hispanics (35.7% compared to 42.4%), and people with less than or with a high school education (38.6% compared to 43.7%). The county has lower rates of people age 65 and older reporting having had a flu shot in the past 12 months; this includes females (66.4% compared to 75.5%) and White non-Hispanics (68.7% compared to 75.9%). The county also has lower rates of people reporting having had a pneumonia shot in the past 12 months; this includes males (17.5% in Columbia County compared to 25.8% in NYS), females (23.6% vs. 25.1%); White non-Hispanics (21.4% compared to 27.7%); and those with income less than $24,999 (26.5% compared to 32.3%)

Other Communicable Diseases

Flu and Pneumonia

Flu and pneumonia mortality rates vary by region in the county. Between 2006 and 2010, the Greater Hudson Area had the highest flu and pneumonia mortality rate (21.8 per 100,000 persons) compared to other regions. Compared to the state (excluding NYC), the following areas had higher flu and pneumonia mortality rates: the Greater Hudson Area and the Northern area. For those same years, the flu and pneumonia emergency department visit rate was highest for the Greater Hudson Area (912.8 per 100,000) compared to the county overall (575.2 per 100,000), the Northern Area (419.4 per 100,000), the Southern Area (462.7 per 100,000), and the state (excluding NYC) (271.3 per 100,000). The flu and pneumonia emergency department visit rate was at least 150% higher for the Greater Hudson Area compared to the upstate NY rate (Attachment 3).

Arthropod-Borne Illnesses

Lyme Disease

Lyme disease is caused by *Borrelia burgdorfei*, a bacteria transmitted to animals and humans by tick bites. Symptoms of Lyme disease include, but are not limited to, fever, headache, fatigue, and the classic "bulls-eye" rash, known as erythema migrans (CDC, 2013a). Lyme can be diagnosed based on signs and symptoms or by blood tests.

The county has a much higher Lyme disease incidence compared to New York State (Figure 39).

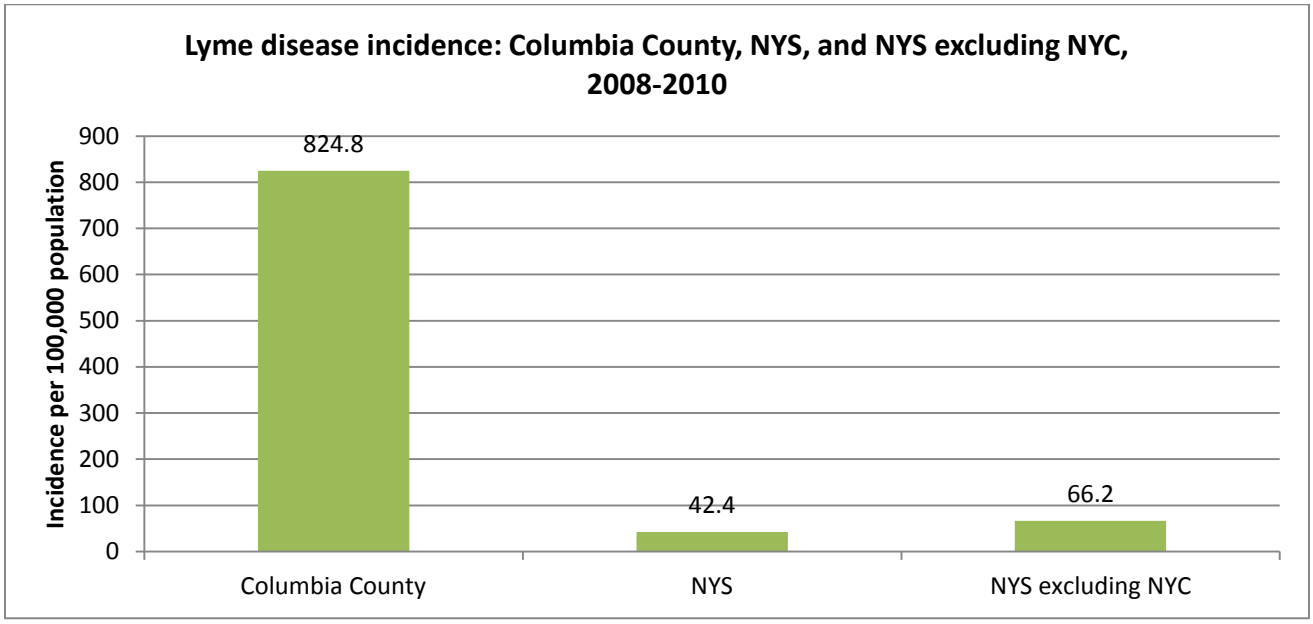

Figure 39: Lyme disease incidence, Columbia County, New York State, and New York State excluding New York City, 2008-2010 (NYSDOH)

The following chart displays number of Lyme disease cases for the county between 2008 and 2013.

Table 27: Lyme disease case counts in Columbia County by year, 2008-2013 (NYSDOH Communicable Disease Annual Reports)

*2013 data are as of October, 2013; source: CCDOH communicable disease counts

	Lyme Disease Case Counts by Year					
	2008	**2009**	**2010**	**2011**	**2012**	**2013***
Columbia County	584	572	384	355	342	173

Over recent years there has been a decrease in the overall incidence of Lyme disease in the county and the state. This could be due to a change in the surveillance techniques employed by NYSDOH or because of preventive measures taken by county residents.

Table 28: Lyme disease incidence rate per 100,000 population, Columbia County and NYS excluding NYC, 2008-2012 (NYSDOH Communicable Disease Annual Reports)

	Lyme Disease Incidence per 100,000 population by Year				
	2008	**2009**	**2010**	**2011**	**2012**
Columbia County	936.5	922.5	623.2	562.6	546.8
NYS, excluding NYC	75.7	73.9	50.1	64.9	47.6

Anaplasmosis and Ehrlichiosis

Anaplasmosis is caused by *Anaplasma phagocytophilum*, and Ehrlichiosis is caused by *Ehrlichia* chaffeenis which are both transmitted by tick bites. Symptoms include, but are not limited to, fever, headaches, chills, and muscle aches, and typically appear 1 to 2 weeks following a tick bite (CDC, 2013; NYSDOH, 2012).

Babesiosis

Unlike Lyme, Anaplasmosis, and Ehrlichiosis, which are all caused by bacteria, Babesiosis is a parasite transmitted by a tick bite (CDC, 2012). Babesiosis is caused by *Babesia microti* and causes no symptoms in many who are infected. Some people will develop flu-like symptoms and hemolytic anemia. According to the CDC (2012), Babesiosis can be severe in people who:

- Have no spleen
- Have a weak immune system
- Have a serious health condition
- Are elderly

Cases of Babesiosis are diagnosed by microscopic examinations of red blood cells. In Columbia County, there has been an increase in Babesiosis since the year 2011.

Table 29: Babesiosis case counts in Columbia County by year, 2009-2013 (NYSDOH Communicable Disease Annual Reports)

*2013 data are as of October, 2013; source: CCDOH communicable disease counts

	Year				
Columbia County	**2009**	**2010**	**2011**	**2012**	**2013***
	1	1	5	7	16

Currently Columbia County has seen the rates of Babesiosis double since 2012. The elderly have been affected more so than other demographics. Co-infections with Ehrlichiosis are a growing concern as treatment is costly, especially for those individuals without health insurance.

Rabies

Rabies is a communicable disease caused by a virus that attacks the central nervous system. Rabies can be transmitted from animals to humans and is almost always fatal once symptoms appear. Rabies can infect any mammal and is most often seen in raccoons, bats, skunks, and foxes. In New York State, cats are most frequently diagnosed with rabies (NYSDOH, 2011). Pets and livestock are vaccinated regularly to prevent the transmission of rabies.

Rabies is transmitted through the saliva of an infected animal or human. Exposure occurs when a mammal is bitten by an infected animal or is exposed to infected saliva via an open wound or mucus membrane. There have also been documented cases of humans being infected by corneal transplants. Early symptoms of rabies include irritability, headache, and fever. Later symptoms include drastic behavior changes, staggering, convulsions, choking, frothing of the mouth, paralysis, and hydrophobia (NYSDOH, 2011). Once symptoms appear, the infected normally die within a week. The best way to avoid exposure to rabies is to stay away from wild and domestic animals exhibiting strange behavior.

Post-exposure treatment of rabies includes a series of vaccinations. In Columbia County there have been approximately 98 post-exposure vaccinations given thus far in 2013.

Other Communicable Disease Figures and Trends

For information about other communicable diseases and trends, please see this NYSDOH website which contains Columbia County communicable disease annual reports: http://www.health.ny.gov/statistics/diseases/communicable/.

Oral Health

Oral health issues are a concern for many children as well as adults in Columbia County. One third of 3rd grade children in the county experience caries, and 21.2% have untreated caries. Only 78.2% of Columbia County 3rd grade children have dental insurance. Less than 70% of adults have had a dental visit in the past year. Only a little over a quarter of Medicaid enrollees have had at least one dental visit within the last year (Table 30).

Table 30: Oral Health Indicators, Columbia County and Upstate NY (data presented for Upstate NY where available) (NYSDOH)

Oral Health Indicator	Columbia County	Upstate NY
*Oral health survey of 3rd grade children, 2009-2011(*Bureau of Dental Health Data, 2009-2011)		
Percentage of 3rd grade children with caries experience	33.4	
Percentage of 3rd grade children with untreated caries	21.2	
Percentage of 3rd grade children with dental sealants	42.5	
Percentage of 3rd grade children with dental insurance	78.2	

Percentage of 3rd grade children with at least one dental visit in last year	81.3	
Percentage of 3rd grade children reported taking fluoride tablets regularly	77.7	
Age-adjusted percentage of adults who had a dentist visit within the past year, 2008-2009 (BRFSS, 2008-2009)	69.6	71.1
Caries emergency department visit rate per 10,000 - Ages 3-5 years, 2008-2010	20.1	69.9
Medicaid oral health indicators, 2008-2010 (SPARCS data, 2008-2010)		
Percentage of Medicaid enrollees with at least one dental visit within the last year	25.4	29.4
Percentage of Medicaid enrollees with at least one preventive dental visit within the last year	20.4	23.3
Percentage of Medicaid enrollees (ages 2-20 years) who had at least one dental visit within the last year	33.2	40.5

Preliminary Health Data for 2013

Some year 2013 preliminary estimates of health statistics for Columbia County and New York State were released by NYSDOH in October, 2013. The data relates to chronic disease, mental health and substance abuse, women's and children's health, and other areas. Please see Attachment 7: BRFSS Expanded Behavioral Risk Factor Surveillance System 2013-2014 Preliminary (4-month) Data Report for Columbia County. For this survey, data collection began on April 15, 2013 and will continue until March 30, 2014. Please note that the data estimates within are not final and are subject to change in the coming year. In addition, many figures have wide confidence intervals, meaning that the figures are considered unstable and subject to change. Estimates with particularly wide confidence intervals are marked in bold font.

Health Concerns of Specific Populations in Columbia County

The county is home or temporary home to some populations whose members may experience specific health issues and barriers to health care and health education.

Children and Youth

According to Maslow's Hierarchy of Needs, the following needs motivate individuals and influence their development: physiological needs, security and safety needs, love and sense of belonging, esteem, and self-actualization. In addition to those needs, children are affected by numerous factors in their day-to-day lives that can shape their health and development, and they may face various health issues. Factors that may influence a child's physical and mental health include, but are not limited to:

- Genetics
- Natural and built environment
- Parents' pre-pregnancy and prenatal health behaviors (HealthyPeople.gov 2013)
- Neonatal care
- Breastfeeding
- Socioeconomics and poverty
- Parenting and family life
- School and education
- Social network support
- Exposure to violence and bullying
- Safety
- Access to quality health care, including a primary care provider, vaccinations, oral health care, and behavioral health care
- Access to health insurance
- Developmental screening
- Physical activity
- Nutrition and hunger
- Stress
- Emotional well-being
- Sleep behavior
- Drug use
- Injuries
- Exposure to media such as television, film, the internet, and interactive games
- Adverse childhood experiences
- Discrimination with regard to disability, health status, race and ethnicity, and other factors
- Mobility and homelessness
- The physical and mental health of parents and caregivers (HealthyPeople.gov 2013)
- Exposure to environmental hazards and toxicants (i.e. second hand smoke, other air pollution, lead, mercury, pesticides, radon, water pollution, personal care products, household products, cleaning products, contaminated toys, and parental occupational/recreational exposures)

Children may be especially vulnerable to disease and health issues because their immune systems are still developing. Also, they may be at higher risk from hazardous exposures in air, water, food, and soil because:

- Their organs and immune systems are still developing;
- For their size, they eat, drink, and breathe more than adults; and
- Young children crawl on floors, play in dirt, and put their hands in their mouths (NYSDOH 2013 July).

Children depend on adults to ensure their safety, well-being, and health. Youth represent the future; it is thus the responsibility of communities to assist youth in achieving optimal health and development and preventing disease.

The Aging

As previously stated, the county has a high percentage of people ages 65 and older (18.2%, compared to the NYS percentage of 13.5%), and of people ages 85 and older (2.5% compared to the NYS percentage of 2.0%). Older adults may experience specific health challenges, including falls and related injuries; physical disabilities; chronic diseases and conditions; degenerative illnesses; Alzheimer's disease; Parkinson's Disease; lack of physical activity; influenza and pneumonia; poor nutrition; food insecurity; problems specific to lesbian, gay, bisexual, and transgender (LGBT) adults; excessive alcohol use; impaired mobility; loss of independence; depression; lack of social and emotional support; poor health literacy; and decreased quality of life (CDC, 2013d). The Columbia County Office for the Aging and other community partners such as the Alzheimer's Association provide programs and services to older adults and their families.

Migrant Workers

Another population of note in Columbia County is the migrant workers who provide labor at farms and other businesses, such as restaurants, landscaping and construction companies, and laundries. Agricultural production of a wide variety of crops in Columbia County and throughout the United States depends upon the labor of the farm workers. Their main countries of origin include: Jamaica, Mexico, and Guatemala. Spanish is the primary language for most of the migrant workers in the county. It is estimated (by a CCDOH professional) that over 500 migrant workers serve over 10 farms in the county during harvest time, from July through October each year. Many of the workers have settled in the county on a full time basis, doing odd jobs in the winter. Some, especially those from Mexico, settle in the county on a full time basis because of difficulty crossing the border.

There is unfortunately a scarcity of data on migrant farm worker health (National Center for Farmworker Health). High blood pressure has been observed in the local population of Jamaican farm workers.
Farm workers face special challenges in achieving good health. For example, they may experience occupational health effects (farm work is considered to be one of the most dangerous occupations), including: exposure to pesticides, skin disorders, heat stress, hearing and vision disorders, infectious diseases, lung problems, exposure to unsanitary conditions, dehydration, and musculoskeletal injuries. The isolation due to the nature of the work and the language barrier, as well as economic hardship, may lead to depression. High risk behaviors (for example, substance abuse), may also result from the stressful living and working conditions. There are also risks associated with migrants' high level of mobility; for example, difficulty accessing services, such as medical and social services, preventive care, and health education. Furthermore, farm workers do not have paid time off for medical appointments and they are often located a far distance from services. These risks are especially dangerous for those individuals with health conditions which require frequent care, such as hypertension, cancer, diabetes, and HIV (National Center for Farmworker Health).

According to the US Department of Labor, it is estimated that 6% of all farm workers are under the age of 18 and most seasonal farm workers are married and/or have children. The children of farm workers are generally forced to work because of their families' poverty. As a result of being submerged in the difficult lifestyle and working conditions, they struggle to have a different future for themselves. Occupational exposures and injuries may have a greater impact on their health compared to adults, since their bodies are more susceptible to harmful effects of exposures and they have less experience in farm work than adults. Overall, farm worker children experience a high level of physical, mental, and emotion stress. If they are member of a migrating family, they also face struggles completing their education because of their high level of mobility (National Center for Farmworker Health).

In Columbia County, it has been observed that around 25% of migrant workers from Jamaica have high blood pressure (this is similar to the percentage of Jamaicans in Jamaica who have high blood pressure).

CCDOH provides health services to migrant farm workers in Columbia County, as well as Rensselaer, Dutchess, and Greene Counties (see Attachment 2: 2013 Columbia-Greene Interagency Yellow Pages for a further description of the CCDOH Migrant Program).

Bengali Population

There is a large Bengali population, estimated by a community member at 400 individuals, which resides primarily in the City of Hudson. A challenge in the community is the paucity of Bengali language interpreters and translators. A recent door to door survey conducted by the Healthcare Consortium revealed that the local Bengali population which responded experiences high rates of depression (16%) and anxiety (26%). Due to cultural beliefs and stigmas, many individuals of the Bengali community do not access behavioral health services. Also, many women do not seek out services.

Veterans

Health problems which veterans may face include mental health issues (i.e. anxiety, depression, post-traumatic stress disorder), alcohol and other drug abuse, head injuries and other injuries, and homelessness, among other problems. The Columbia County Veterans Service assists veterans returning from the war zones with re-integration into the community and family, coordinating with the Veterans' Administration for all services to which veterans are entitled, and providing transportation to and from VA Hospital appointments (including wheelchair accessible transportation services).

LGBT Individuals

It is a challenge to estimate the number of lesbian, gay, bisexual, and transgender (LGBT) individuals in a community because questions related to sexual orientation are not included on most surveys (HealthyPeople.gov). LGBT individuals have unique health concerns. They may experience health disparities related to discrimination and stigma. The discrimination these individuals experience has been associated with mental health issues, substance abuse, and suicide. They also may suffer from homelessness, social isolation, and bullying (HealthyPeople.gov, 2013). According to Healthy People.gov (2013):

"-LGBT youth are 2 to 3 times more likely to attempt suicide (Garofalo et. al., 1999) and more likely to be homeless (Conron, Mimiaga, Landers, 2010; Kruks, 2010, Van Leeuwen et. al., 2006).
-Lesbians are less likely to get preventive services for cancer (Buchmueller and Carpenter, 2010; Dilley et. al., 2010).
-Gay men are at higher risk of HIV and other STDs, especially among communities of color (CDC, 2010). Lesbians and bisexual females are more likely to be overweight or obese (Struble et. al., 2010).
-Transgender individuals have a high prevalence of HIV/STDs (Herbst et. al., 2008), victimization (Whitbeck, 2004), mental health issues (Diaz et. al., 2001), and suicide (Kenagy, 2005) and are less likely to have health insurance than heterosexual or LGB individuals (National Gay and Lesbian Taskforce, 2009).
-Elderly LGBT individuals face additional barriers to health because of isolation and a lack of social services and culturally competent providers (Cahill, South, and Spade, 2009).
-LGBT populations have the highest rates of tobacco, (Lee, Griffin, Melvin, 2009; Xavier, Honnold, Bradford, 2007), alcohol, (Xavier, Honnold, Bradford, 2007; Hughes, 2005), and other drug use (Xavier, Honnold, Bradford, 2007; Lyone, Chandra, Goldstein, 2006; Mansergh et. al., 2001)."

Community Assets and Resources Available to Address Health Issues

Numerous community and regional agencies are equipped and experienced to tackle Columbia County's health issues. Collaboration and team work are necessary in tackling health improvement activities.

2013 Columbia-Greene Interagency Yellow Pages

Agencies, such as those listed in **Attachment 2: 2013 Columbia-Greene Interagency Yellow Pages**, have been, and will continue to, strategically address community health concerns and work to prevent disease. The Columbia-Greene Interagency Yellow Pages is a great document which provides information about organizations' programs, services, and resources available to both Columbia and Greene Counties. Represented in the document are 18 Columbia County agencies, 11 Greene County agencies, and 33 regional agencies.

Other Programs, Partnerships, and Agencies

Some programs, partnership, and agencies are not listed in the Interagency Yellow Pages. Some of those *not* listed in the Yellow Pages are included below:

Access Planning Task Force: Formed by the Healthcare Consortium, with the purpose of identifying community needs with regard to access to care.

American Red Cross of Northeastern NY: Community education and support before, during, and after emergencies; shelter and basic needs during and following emergencies.

Berkshire Taconic Community Foundation: A venture encompassing Columbia, Berkshire (in Massachusetts),

Litchfield (in Massachusetts), and Dutchess Counties. They provide major assistance with immunizations and other programs effecting populations living in the four-corner region.

Breastfeeding Coalition: focused on community awareness and education to increase breastfeeding and provide breastfeeding supports.

Child Fatality Review Team: Provides critical review and recommendations for action following the death of a child. Team members consist of local health department Maternal Child Health Program supervisor, Department of Social Services, Sheriff's Department, a psychologist, District Attorney, coroners, Mental Health, Hudson Police, NYS Police, Emergency Room physician, Reach Center, a school counselor, and others.

Child Find: A part of New York State's Early Intervention Program, it is at no cost to the family. The purpose of the program is the early identification of children who may be at risk for a developmental delay. Specific risk criteria have been established by NYSDOH. The program ensures that all children have ongoing health care which includes monitoring and periodic developmental screenings by their primary health care providers.

Children with Special Healthcare Needs (CSHCN): The major focus of the program is to identify gaps in services for children with special health care needs, including lack of health insurance, primary health care, dental care, and transportation. A major component of the program includes assisting with coordination among multiple health care providers and assisting families with the location of specialists. Families are assisted in obtaining services and are tracked to assure that children are receiving the care that they need. Referrals to other programs within our agency, or to outside agencies, are made as appropriate.

Columbia County Bounty: Local farm owners, restaurant owners, Land Conservancy, Agribusiness Development, Chamber of Commerce, and community members committed to supporting local agriculture.

Columbia County Chamber of Commerce: Provides an important relationship among business owners and promotes educational efforts.

Columbia County Emergency Management: Collaborates in emergency planning, drills, and response.

Columbia County Emergency Medical Services (EMS): Provide local emergency ambulance services, training, and safety education.

Columbia County Medical Society: Collaborate on educational topics for professionals and community groups.

Columbia County Public Health Leadership Team: a cross-system collaborative which prioritizes health issues through comprehensive planning and provides oversight in the implementation and evaluation of identified public health improvement activities endorsed to improve the quality of life for residents in Columbia County.

Columbia-Greene Controlled Substance Task Force: focused on community prevention, practice guidelines for providers, and linkages to treatment for prescription drug abuse.

Columbia-Greene Suicide Prevention Task Force: focused on research, community awareness, and education to prevent suicide in Columbia and Greene Counties.

Columbia Memorial Hospital Dental Van: A school-based mobile dental service. Services include exam, x-rays,

cleaning, sealants and fluoride treatments by a licensed dentist and hygienist for students in the local school districts. When necessary, services also include fillings, extractions and other treatment for the care of dental decay. The dental program also utilizes portable dental equipment for preventive dentistry in the school building. Parents receive consent forms from the school and are asked to complete, sign and return them for their child to receive services. During summer months and school vacations, the van accepts adult patients from Columbia and Greene Counties and can continue care of school-aged children. Medicaid is accepted as payment as well as other dental insurances.

Community Hospice: Provides supportive, sensitive care for those persons and their families facing the end of life due to disease or natural aging. CCDOH refers to Hospice and works with families receiving CCDOH Home Care services to facilitate entry into the program.

Interfaith Council: The local faith leaders are an important part of the local public health system. Their close contact with the church members assists with connections to community residents of all ages.

The Lions Club: Community based organization with a focus on sight and hearing.

Lyme Disease Task Force: Meets two to four times a year to promote educational efforts and investigate ways to reduce the incidence of Lyme disease in Columbia County.

Physically Handicapped Children's Program: Provides medical, educational, and financial assistance to children under the age of 21 who have congenital or acquired severe physically handicapping conditions.

Rotary Clubs: Community based organization which assists with promotion of immunizations.

Salvation Army: Provides emergency food and shelter, food kitchen, and education to prepare for emergencies.

Upper Hudson Planned Parenthood: Promotes healthy sexuality and reproductive choice through education and advocacy.

A Highlight of Current Community Partnerships

There are many examples of local partnerships aimed at addressing the health and human service needs of the people of Columbia County. CCDOH and Columbia Memorial Hospital regularly team up to provide health services and health education to the community. Catholic Charities partners with local school districts to provide substance abuse prevention education. Twin County Recovery Services, Inc. regularly works with the Columbia County Department of Human Services. Cornell Cooperative Extension of Columbia and Greene Counties works with the School Partners in Gardening (SPIG) group to provide gardening education and support. The Greater Hudson Promise Neighborhood has a close relationship with the Hudson City School District, assisting students in achieving success in their academic, extracurricular, and personal lives. CCDOH and Rip Van Winkle Tobacco-Free Action (of the Columbia County Community Healthcare Consortium) collaborate on tobacco-related policies and programs. Columbia County Office for the Aging and the Columbia County Sheriff's Department team up on Project Lifesaver and Senior Safety Net to support the well-being of older individuals and their families. Health and human service agencies and professionals from both counties

collaborate on the Columbia-Greene Suicide Prevention Task Force and the Columbia-Greene Controlled Substance Task Force.

Community Health Assessment Conclusion and Plans for Improvement

The Columbia County CHA provides an overview of the county's demographics and health status. The assessment highlights that although the county is doing well in some areas of health, disease rates and indicators of poor health outcomes among Columbia County residents are worse than New York State's rates in many areas. The following Community Health Improvement Plan (CHIP) is a plan for how local agencies and community partners will team up to make community improvements in health priority areas. The health priority areas are: **Chronic Disease Prevention, Mental Health Promotion and Substance Abuse Prevention, Arthropod-Borne Illness Prevention, and Occupational Injury Prevention**. CCDOH and partners welcome community members' questions, suggestions, and participation in the improvement process; please contact us at (518) 828-3358 or ccdoh@columbiacountyny.com.

Part III: Columbia County Community Health Improvement Plan (2014-2017)

The Columbia County health priorities for 2014-2017 are: (1) Chronic Disease Prevention; (2) Mental Health Promotion and Substance Abuse Prevention; (3) Arthropod-Borne Illness Prevention; and (4) Occupational Injury Prevention. Our CHIP prioritized those areas because they were identified and highlighted as priority areas in the CHA. They are the areas in which the greatest health improvement impacts can be realized relative to the current health status of Columbia County residents. The process for choosing these priorities is also described on pages 7-11.

I. Chronic Disease Prevention Priority

Broad Overview:

Focus Area 1:

Within the Chronic Disease Prevention priority area of the CHIP, one focus is obesity prevention among children and adults. Obesity, considered a chronic disease, is a significant risk factor for other chronic diseases and conditions, including high blood pressure, type 2 diabetes, asthma, high cholesterol, stroke, heart disease, certain types of cancer, and osteoarthritis. Overweight and obesity may also contribute to psychological distress, depression, discrimination, and prejudice. A very high percentage (57.5%) of adults in Columbia County are either overweight or obese (New York State: 60.6%), and 22.4% of adults in the county are obese (New York State: 24.3%). Of Columbia County public school district students, 37.1% are overweight or obese (New York State percentage: 33.7%), and 19.1% are obese (New York State: 17.6%). Among Columbia County children, overweight and obesity rates vary by school district. Hudson City School district has the highest percentage of students who are either overweight or obese.

The CHIP activities for obesity prevention focus on physical activity and healthy eating habits because of the important role that these lifestyle factors have on preventing and managing chronic diseases. Also included are activities to promote breastfeeding, as research has correlated lower rates of obesity in mothers who breastfeed and children who were breastfed as infants. There will be two main components to the improvement activities for obesity prevention: a school-based component and community components.

The school-based component will entail working with schools to implement physical activity into the school day and helping schools to adopt policies which call for daily physical activity among all students. Actions to decrease the high obesity rates among children were included in the plan because instilling healthy habits in children is prevention at its best. Including children will result in generating maximum impact on health status and can bring about positive health outcomes for generations.

The community-based components for obesity prevention will include: collaborating with employers to promote breastfeeding; helping schools to implement joint use agreements to encourage and support physical activity among community members; promoting Eat Smart NY to encourage healthy eating; implementing the

"Healthy Mondays" program; and working with Columbia Memorial Hospital to promote preventive health screenings among community members.

Focus Area 2:

The other focus of the Chronic Disease Prevention priority area of the CHIP is decreasing tobacco use among community members. Cigarette smoking is directly linked to lung cancer, as well as to other respiratory diseases. A large percentage (23.1%) of Columbia County adults smokes cigarettes (New York State: 16.8%). In Columbia County, the lung cancer rate for males (102.9 per 100,000 persons) is much higher than the state's rate for males (84.3 per 100,000 persons. The county's lung cancer rate for females (63.8 per 100,000 persons) is also high (New York State: 64.5 per 100,000).

Focus Area 1: Obesity Prevention

An overview of the community health improvement activities follows. **Please refer to Attachment 5 (Columbia County CHIP logic models for planning, implementation, and evaluation of community health improvement activities) for further details regarding goals, objectives, expected outcomes, and evaluation.**

A. School-based Component

Goal: Reduce obesity in children by working with **a)** at least one public school district and **b)** Coarc - The Starting Place (preschool) to incorporate physical activity into the school day and allow students time to engage in physical activity.

Objectives:

- Implement physical activity "bursts" (ABCs) into the school day.
- Incorporate into school (wellness) policy: teachers will implement physical activity in the school day in all classrooms.
- Improve student behavior among the students who increase their physical activity.
- In the public school district: Decrease overall student overweight and obesity by 5% by 2017 (NYSDOH distributes overweight and obesity data for the group: pre-K, K, 2nd, and 4th graders (considered "elementary level").

Proportion/sample of population involved and how the team will have access to them: For both **a)** the public school district and **b)** Coarc - The Starting Place: we will be working with administrators and teachers, who will be directly working with students.

How/if it addresses decreasing disparities: *If the team is able to implement the strategy in the Hudson City School District:* students of the Hudson City School District have a higher percentage of students who are either overweight or obese compared to other public school districts in the county. The Hudson area has high rates

of poverty, higher rates of hospitalization and emergency department visits for many chronic diseases, and the largest percentage of minority populations.

Collaborating agencies: CCDOH, Coarc-The Starting Place, Healthy Schools NY, Greater Hudson Promise Neighborhood.

Assets: Coarc has a well-established wellness program for employees and the individuals they serve and they support physical, mental, and emotional health and wellness. Coarc – The Starting Place staff are highly supportive of the physical activity initiative.

CCDOH has a working relationship with Albany County Department of Health, whose public health professionals have helped Albany schools to implement physical activity bursts in the school day. CCDOH can learn from Albany County's experiences.

Another asset is that the Greater Hudson Promise Neighborhood will be overseeing AmeriCorps volunteers in the Intermediate School of the Hudson City School District and they will be available to assist with implementing physical activity in the classroom of both the primary and intermediate schools if we implement the strategy in the Hudson City School District.

Healthy Schools NY is already working in the area of healthy policies and activities (especially regarding physical activity and nutrition) in public school districts in Columbia County.

Challenges: In the public school district: must gain approval of superintendent, principals, and teachers; scarcity of funds for purchasing or printing materials.

Evaluation and Improvement: See Attachment 5.

How we will scale up the operation if successful: Expand to additional classrooms and additional schools.

If available, what lessons have you learned from past experiences addressing this issue: CCDOH had a Healthy Heart grant program several years back and the program coordinators had a good working relationship with public schools in the county. CCDOH learned that many schools have great assets, including passionate teachers and school gardens.

B. Community-based Components

1. Work with Employers to Promote Breastfeeding

Goal: Expand the role of public and private employers in obesity prevention by increasing the number of employers in the county providing support for breastfeeding in the workplace.

Objectives: By 2017, increase the number of employers of 50 or more employees in Columbia County that support breastfeeding in the work place (baseline to be determined).

Proportion/sample of population involved how the team will have access to them: Work places: the team will have access to them after contacting work place administrators/supervisors.

How/if it addresses decreasing disparities: It will assist women who, without the policies in place, will have great difficulty breastfeeding after returning to work following the birth of a child.

Collaborating agencies: CCDOH (Perinatal Nurse Navigator), WIC, Columbia Memorial Hospital, OB medical providers, pediatric medical providers, Breastfeeding Coalition, businesses.

Assets: Some local organizations, such as Coarc and the hospital, are already in support of health and wellness.

Challenges: Some employers may be run by a corporate office and it may be difficult to modify/implement new policies.

Evaluation and Improvement: See Attachment 5.

How we will scale up the operation if successful: Expand to additional work places.

2. Assist Schools in Developing Joint Use Agreements to Promote Physical Activity Among Community Members

Goal: Create community environments that promote and support physical activity by establishing joint use agreements to open schools to community members for safe physical activity outside of school hours.

Objectives: Establish joint use agreements to open schools to community members outside of school hours for safe physical activity in at least three public school districts in Columbia County by 2017.

Proportion/sample of population involved and how the team will have access to them: Community members who are a member of a particular school district.

How/if it addresses decreasing disparities: Depending on the areas in which this is implemented, it may address decreasing disparities. For example, in an area such as Hudson, in which the hospitalization rate and emergency department visit rate for many chronic diseases are higher than in other county regions, these joint

use agreements may help people experiencing health disparities to have greater access to a safe place in which to engage in physical activity.

Collaborating agencies: CCDOH, Healthy Schools NY, public school districts.

Assets: Healthy Schools NY has helped develop these agreements with other agencies. Some schools in the county already have these agreements and they may be able to offer guidance and advice.

Challenges: The logistics of security, liability (or accident/personal injury insurance issues) and staffing at the school buildings.

Evaluation and Improvement: See Attachment 5.

How we will scale up the operation if successful: Expand to other school districts.

3. Implement the Healthy Mondays Program

Goal: Create community environments that promote and support healthy behaviors by implementing the Healthy Mondays program.

Objectives: Implement the Healthy Mondays program in at least three work places in Columbia County by 2017.

Proportion/sample of population involved and how the team will have access to them: Individuals who work at specific work places, including Columbia County work places, Catholic Charities, and Columbia Memorial Hospital; we would have access to them by working closely with their administrators.

Collaborating agencies: CCDOH, other Columbia County departments, Catholic Charities of Columbia and Greene Counties, Columbia Memorial Hospital, Operation Unite, Eat Smart NY (Cornell Cooperative Extension of Columbia and Greene Counties), Rip Van Winkle Tobacco Free Action, other local organizations and businesses.

Assets: The team already has support from Catholic Charities. Also, the team will receive training in Healthy Mondays from experts at Syracuse University.

Challenges: Lack of funding. Also, people are at different stages to change health behaviors and may not feel ready to engage in new, healthy behaviors.

Evaluation and Improvement: See Attachment 5.

How we will scale up the operation if successful: Expand to other work places and organizations.

4. Promote Eat Smart New York

Goal: Increase healthy nutritional behaviors among community members by promoting Eat Smart NY.

Objectives: Increase healthy nutritional behaviors among community members by promoting Eat Smart NY in two low income areas of the county (Hudson and Philmont) by 2017.

Proportion/sample of population involved and how the team will have access to them: Individuals who are eligible for SNAP; access via the Eat Smart NY staff of Cornell Cooperative Extension of Columbia and Greene Counties.

How/if it addresses decreasing disparities: The program will be promoted in low income areas in the county in which health status and health literacy may be lower than in other areas of the county.

Collaborating agencies: CCDOH, Cornell Coop. Extension, WIC, Greater Hudson Promise Neighborhood, schools, other health and human service agencies in Columbia County.

Assets: The local Eat Smart NY program is well-established in the community and has experienced and knowledgeable nutrition educators.

Challenges: Gathering groups of individuals interested in the programming; helping individuals to change behaviors, including those who may not be ready for change.

Evaluation and Improvement: See Attachment 5.

How we will scale up the operation if successful: Expand to other areas of the county.

5. Work with Columbia Memorial Hospital to Promote Health Screenings

Goal: Work with Columbia Memorial Hospital to promote health screenings and health promotional activities related to obesity and cardiovascular disease.

Objectives: Monitor number of clients or patients who have been referred to or who have received health screenings through Columbia Memorial Hospital services.

Proportion/sample of population involved and how the team will have access to them: People who utilize or are served by CCDOH programs.

Collaborating agencies: CCDOH, Columbia Memorial Hospital.

Assets: New health care reform.

Challenges: People's inability to access services (i.e. lack of transportation, no paid time off from work, etc.).

Evaluation and Improvement: See Attachment 5.

Focus Area 2: Tobacco Use Reduction

An overview of the community health improvement activities follows. **Please refer to Attachment 5 (Columbia County CHIP logic models for planning, implementation, and evaluation of community health improvement activities) for further details regarding goals, objectives, expected outcomes, and evaluation.**

Goal: Reduce and prevent cigarette smoking among Columbia County residents.

Objectives: Reduce and prevent cigarette smoking among Columbia County residents via collaborate efforts by Rip Van Winkle Tobacco Free Action, CCDOH, and other agencies.

Proportion/sample of population involved and how the team will have access to them: Columbia County residents, public school students and their parents. Access via: broad-reaching media campaigns, policies and programs which affect all community members, educational opportunities at schools and within the community.

Collaborating agencies: CCDOH, Rip Van Winkle Tobacco-Free Action of Columbia and Greene Counties.

Assets: Rip Van Winkle Tobacco-Free Action has knowledgeable professionals who are experienced with working in the area of tobacco prevention policies and initiatives.

Challenges: Helping people to change their smoking behaviors.

Evaluation and Improvement: See Attachment 5.

II. Mental Health Promotion and Substance Abuse Prevention Priority Overall Focus: Prescription Drug Abuse Prevention

Broad Overview:

Focus Area 1:

Within the Mental Health Promotion and Substance Abuse Prevention priority area of the CHIP, one focus is prescription drug abuse prevention among adolescents. It has been identified as a major problem in Columbia County and also a growing problem nationwide. In 2012, 14.8% of high school seniors nationwide reported using prescription drugs for nonmedical purposes. Prescription drugs are often easily accessible to adolescents, and abuse of those drugs can lead to severe health consequences and even death. The community health improvement efforts for prescription drug abuse prevention will entail utilizing health survey analyses to strategically implement improvement and prevention interventions in the Hudson City School District, as well as implementing preventive initiatives in other public school districts in the county. The efforts will also include community-wide media campaigns, education to medical providers, education to parents and community members, and information dissemination to health and human service organizations.

Focus Area 2:

The second focus area will be to continue the work of the Columbia-Greene Controlled Substance Task Force, which aims to decrease and prevent prescription drug abuse in the two counties through focusing on practice guidance for prescribers, community prevention, and linkages to treatment.

Focus Area 1: Prescription Drug Abuse Prevention Among Adolescents

Please refer to Attachment 5 (Columbia County CHIP logic models for planning, implementation, and evaluation of community health improvement activities) for further details regarding goals, objectives, expected outcomes, and evaluation.

Goal: Reduce the abuse of prescription drugs by students in Hudson High School as measured by a school-based survey administered in the 2012/13 school year and re-administered in 2016/17.

Objective: Decrease the percentage of Hudson High School students who abuse prescription drugs by 10% by 2017.

Background: In the fall of 2013, Catholic Charities of Columbia and Greene Counties was successful in being awarded the American Medical Association (AMA) Healthy Living Grant which is focused on reducing prescription drug abuse through raising awareness and providing education about the dangers associated with the misuse and abuse of prescription medications. One of the main activities of the project will include providing educational information to youth in every school district throughout each county. The project will

provide an opportunity for youth to participate in county-wide information dissemination. The aim of the project is to decrease the availability of, and misuse and abuse of, prescription medication, particularly by youth and young adults.

Project summary (taken from the AMA Healthy Living Grant application): The title of the project is "Education and Prevention of Controlled Substance Abuse." Catholic Charities of Columbia and Greene Counties will partner with the Departments of Health in both Columbia and Greene Counties as well as with Columbia Memorial Hospital to educate and ultimately prevent the abuse of controlled substances and prescription medications. This project will begin with controlled substance abuse education in the communities and school districts in each county. A dual-county poster contest will be open to all students and youth in both counties with the message and focus on the dangers of prescription drug misuse and abuse. Poster contest winners will have their messages published and used in a dual-county media campaign. Additionally, information will be used in dual-county public service announcements and rack cards will be printed and displayed in all public health locations and primary care physicians and pediatric offices affiliated with Columbia Memorial Hospital throughout both counties.

Collaborating agencies and partnerships: Catholic Charities of Columbia and Greene Counties, CCDOH, Greene County Public Health Nursing Service, Greater Hudson Promise Neighborhood, Columbia-Greene Controlled Substance Task Force Prevention Work Group (The Prevention Work Group will be made up of members of Catholic Charities of Columbia and Greeene Counties, Columbia and Greene Counties' public health departments, Columbia and Greene Counties' Departments of Human Serivces, respresentatives from Columbia Memorial Hospital, Twin County Recovery Services, Inc., County Departments of Social Services, Probations, and courts, as well as others. This group is made up of committed professionals and individuals who expressed excitement about carrying out the project and ensuring its sustainability). Other community health and human service agencies and professionals will be partners in the efforts to distribute informational materials.

Proportion/sample of population involved and how the team will have access to them: The project will target all community members in both counties, including parents. There will be a focus on educating at-risk youth between the ages of 2-21 throughout Columbia and Greene Counties. Catholic Charities prevention educators are already working in the school system.

Assets: Catholic Charities prevention educators are already working in the school systems and have a good working relationship with the school system.

Challenges: Accuracy of data self-reported data; lack of evidence-based practices in the field.

Measurable goals/outcomes (taken from the AMA Healthy Living Grant application): The overall goal of the project will be decreasing the abuse of controlled substances by youth in Columbia and Greene Counties. The goal will be reached by providing education to increase the knowledge of the dangers of misuse and abuse of prescription medications and controlled substances. Upon increasing knowledge, the objective will be to decrease favorable attitudes regarding use of prescription medications and thereby decrease the actual abuse of precription drugs. In Columbia County, education on this topic will be presented face-to-face to at least 4

out of the 6 school districts throughout the county. In each of the 4 schools, a minimum total of 150 students will be educated about misconceptions and dangers associated with the misuse and abuse of controlled substances. Youth will show an increased knowledge of this topic and results will be measured by pre- and post-tests which will be administered to each class. In Greene County, Catholic Charities will work with the NYS OASAS Prevention Education provider, Twin County Recovery Services, Inc. to attain the goal of at least 3 of the 6 total school districts receiving education regarding the topic. Of the 3 schools, a minimum of 100 youth in each will be presented with educational lessons and will show improved results through pre- and post-tests. The remaining school districts will receive information via publications and information dissemination.

Parents, community members, and young adults will show increased knowledge after attending an informative lecture on the dangers of misuse and abuse of controlled substances presented by an expert speaker. The goal is to have a total attendance of 150 individuals. This total will be measured by the number of registrants and attendees for the event.

The decrease in favorable attitudes and abuse of controlled substances will also be measured by a comparison to results from different data sets: the results of a community health survey which was administered in 2012/2013 (the Youth Development Survey), and NYS OASAS statistics and data for Columbia and Greene Counties gathered on a yearly basis regarding attitudes and abuse.

Information on the dangers associated with the use and abuse of controlled substances will be made available to 90% of public health locations and primary care providers in both Columbia and Greene Counties. The goal is that at least 75% of all providers and public health locations will agree to post information regarding the dangers associated with the misuse and abuse of controlled substances. This number can be measured by the number of medical providers and public health offices registered throughout each county and the number of those who will agree to provide information.

The goal of the poster contest is to have at least 50 individual youth in each county participate. This total can be measured by counting the number of entries at the contest deadline.

The Columbia and Greene Counties' Departments of Health will be part of the Prevention Work Group through the Columbia-Greene Controlled Substance Task Force, where much of the project work will take place. The Departments of Health, along with Columbia Memorial Hospital, will assist with the information dissemination piece of the project, which will have long-term sustainability.

Information posted, displayed, and offered on the dangers of misuse and abuse of controlled substances and prescription medications will be displayed at all county public health locations throughout each county, as well as all medical providers who specialize in family practice and pediatrics who are affiliated with Columbia Memorial Hospital. The Columbia-Greene Controlled Substance Task Force has regular attendance and representation from the hospital's medical providers, pharmacists, and numerous human service agencies throughout both counties. Each respresentative has expressed a willingness to participate in this project, and most especially agreed to help with information dissemination.

Evaluation and Improvement Timeline: See Attachment 5.

How we will scale up the operation if successful: The curricula will become a permanent part of the prevention education programs in the school districts and may be expanded to other school districts.

If available, what lessons have you learned from past experiences addressing this issue: Catholic Charities of Columbia and Greene Counties is already providing substance abuse education in the classrooms in 3 out of 6 school districts in Columbia County. It expects an easy transition to include information regarding controlled substance and prescription drug abuse.

Focus Area 2: Columbia-Greene Controlled Substance Task Force

Goal: The Columbia-Greene Controlled Substance Task Force will continue its work to decrease prescription drug abuse in the two counties.

Objectives: The Columbia-Greene Controlled Substance Task Force will continue to work towards reducing and preventing controlled substance abuse by focusing on practice guidance for prescribers, community prevention, and linkages to treatment. The work groups (Practice Guidelines Work Group and the Prevention/ Education Work Group), along with the Columbia Memorial Hospital Pain Management Committee, will continue their initiatives aimed at reducing and preventing controlled substance abuse in the two counties.

Proportion/sample of population involved and how the team will have access to them: Community members, medical providers, health and human service agencies, students and their parents, real estate companies.

Collaborating agencies: Columbia-Greene Controlled Substance Task Force membership, Columbia Memorial Hospital Pain Management Committee

Assets: The Controlled Substance Task Force, along with its work groups and the Columbia Memorial Hospital Pain Management Committee, have been meeting regularly to address controlled substance abuse in the two counties.

Challenges: Reaching out to a wide variety of agencies and individuals who may serve or come in contact with individuals who abuse controlled substances.

Evaluation and Improvement: See Attachment 5.

How we will scale up the operation if successful: Expand prevention work to more organizations and groups.

III. Arthropod-Borne Illness Prevention Priority

Broad Overview:

Between 2008 and 2010, Columbia County had a Lyme disease rate of 824.8 per 100,000 (NYS: 66.2 per 100,000). Rates of other arboviruses (arthropod-borne illnesses) have increased and can lead to co-infections and a number of health complications.

Goal: Reduce the rate of Lyme disease and other arthropod-borne diseases by promoting awareness, education, and signage.

Objectives: Increase Lyme disease and arthropod-borne tick-borne disease prevention information throughout the county with signage. This will include, but not be limited to, signage in parks, campgrounds, summer camps, schools, on rail trails, and billboards promoting Lyme and other tick-borne disease awareness and education. Increase educational outreaches in migrant camps and other groups, including but not limited to, camps, schools, and nursing homes. Apply for grants (Columbia Memorial Hospital and partners) to help with arthropod-borne disease prevention efforts.

Proportion/sample of population involved and how the team will have access to them: Individuals that engage in outdoor activities both recreationally and occupationally and who access county parks or rail trails; schools; students; parents; pet owners; veterinary clinic staff.

Collaborating agencies: CCDOH, Columbia Memorial Hospital, Lyme Disease Task Force.

Assets:
There are various current prevention measures already taking place in Columbia County:

- CDC Lyme disease bookmarks are distributed to libraries
- "Backpack letters" are distributed to all schools: "Dress to Repel" - short message about ticks and Lyme (total of 4,300 Xeroxed and distributed by CCDOH and 1,700 delivered via email to parents by schools)
- Information in Columbia Memorial Dental Van
- Lyme presentations are given at seniors centers, day camps, and migrant camps
- Lyme Disease education is distributed to new hospital employees by the Columbia Memorial Hospital Department of Education
- Camphill Village staff has been given Lyme information, tick cards, and other supplies
- Tick cards have been distributed to Columbia County Department of Human Services/Mental Health Clinic, Columbia County Office of the Aging, and the Columbia County Community Healthcare Consortium
- CCDOH distributes Lyme Disease pamphlets and tick removers at various community outreach events

Challenges:

- Cost of education and signage
- Shortage and increased price of doxycycline

- NYS funding was discontinued and no funding is available from NYS for prevention and surveillance activities due to discontinuation of a grant

Evaluation and Improvement: See Attachment 5.

How we will scale up the operation if successful: Apply for grants to help increase awareness and expand educational outreaches; extend efforts to adjacent counties where Lyme rates have been increasing.

IV. Occupational Injury Prevention Priority

Broad Overview:

The county's occupational injury rates are higher than those of the state. Workers age 16 and over in Columbia County have an occupational-related hospitalization rate of 37.7 per 10,000 persons (NYS: 19.7 per 10,000). Workers age 15 to 19 in the county have a rate of occupational injuries treated in the emergency department of 73.6 per 10,000 (NYS rate: 36.7 per 10,000). Community health improvement strategies to prevent occupational injuries will focus on working with employers to increase awareness of the high occupational injury rates and educate employers on proper employee training and safety methods.

Goal: Reduce the overall rate of occupational injuries in Columbia County, with a focus on young adults.

Objectives: Collaborate with employers to increase awareness of the rate of occupational injuries in the county; collaborate with employers to educate employees on work place safety.

Proportion/sample of population involved and how the team will have access to them: Local employers; employees, with a focus on young adults. Access via contacting and working with local employers.

Collaborating agencies: CCDOH, local employers.

Assets: CCDOH has a close relationship with NYSDOH, which has experts in the field of occupational safety.

Challenges: Finding data which indicates which professions experience the highest rate of injury; Potential difficulty being able to work with experts in the field of occupational safety.

Evaluation and Improvement: See Attachment 5.

How we will scale up the operation if successful: Expand outreach to more organizations and individuals.

Part IV: CHA/CHIP Communications Strategy

The Columbia County Department of health CHA/CHIP coordinators will communicate the findings, goals, and objectives of the CHA/CHIP to CCDOH staff and to the following agencies and partnerships:

Catholic Charities of Columbia and Greene Counties
Coarc, including Coarc – The Starting Place
Columbia County Board of Health
Columbia County Board of Supervisors
Columbia County Community Healthcare Consortium
Columbia County Department of Human Services
Columbia County Department of Social Services
Columbia-Greene Controlled Substance Task Force
Columbia County Office for the Aging
Columbia County Public Health Leadership Team
Columbia County public school districts
Columbia Memorial Hospital
Cornell Cooperative Extension of Columbia and Greene Counties
Greater Hudson Promise Neighborhood
Greene County Public Health Nursing Services
Healthy Capital District Initiative
Healthy Schools New York
Twin County Recovery Services, Inc.

CCDOH will also notify the public of the CHA/CHIP goals and objectives through their website and Facebook page, and will place a press release in local media notifying the community of the CHA/CHIP findings, goals, and objectives.

CCDOH will make a link to the final document on the CCDOH website and will email it to the above agencies and partnerships, encouraging those entities to share the information and the document with others to benefit their work in the community.

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