May 18, 2012

Speaking of Health in Central New York
DISCUSSIONS ON TOPICS THAT MATTER

Health Equity for All
A Cornerstone of Healthy Communities

FIGURE 1

A Look at the Numbers:
Health equity in Central New York would mean...

300 FEWER **asthma-related hospitalizations** of children in the City of Syracuse every year

365% FEWER **leg amputations** among black seniors across Central New York

500 MORE **primary care physicians, dentists and mental health providers** in rural counties of the region

9,600 MORE **years of life** in four counties where premature death rates exceed the regional average

Source: See Data Sources and Notes for Figure 1.

> *Of all inequalities, the injustice around health care is the most startling and inhumane.*
>
> **Martin Luther King, Jr.**, March 25, 1966

Not all residents in Central New York enjoy the same chance of being healthy and living a long life. Rather, striking disparities exist with regard to health outcomes, health risk factors and health-related resources. Residents in Tompkins County, for instance, live longest, while those in Oneida and Oswego counties die prematurely more often from all causes of death. At the same time, blacks across Central New York undergo leg amputations at rates five times that for other races and ethnicities. And infants born into families of low socioeconomic status are at higher risk for low birth weight, premature death and other poor outcomes. The data point to inequities, with some residents enjoying better health care and health outcomes than others who are disadvantaged by their race, ethnicity, socioeconomic status and geography.

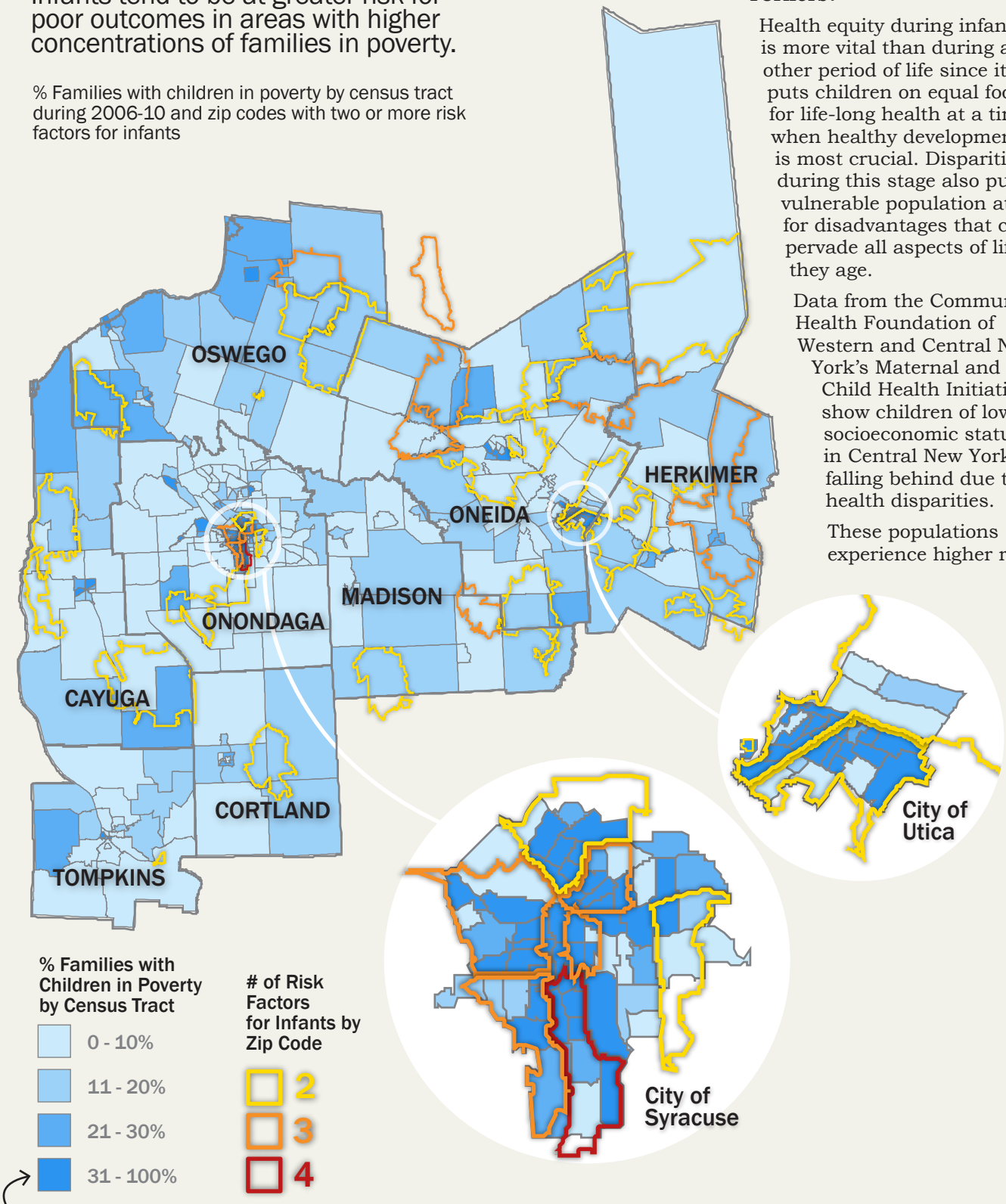
Healthy People 2020 defines health equity as the "attainment of the highest level of health for all people. Achieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and the elimination of health and health care disparities." Health equity is a matter of social justice and a recognition that health is fundamental to life and overcoming the disadvantages into which many are born.

Moreover, a growing body of literature reveals controllable conditions such as environment, education and wealth are more influential on health than factors out of our control like genetics. Health equity isn't simply an ideal. It's achievable.

FIGURE 2

Infants tend to be at greater risk for poor outcomes in areas with higher concentrations of families in poverty.

% Families with children in poverty by census tract during 2006-10 and zip codes with two or more risk factors for infants



Double or more the concentration of families living in poverty compared to the regional average

Source: 2006-10 American Community Survey and data from *Improving Services for Pregnant Women and Children 0-1 in Central New York: Profiling High Risk Communities* by Lee Ann Huang, Bonnie Hart and Deborah Daro at Chapin Hall at the University of Chicago, 2010.

How are disparities affecting the health of Central New Yorkers?

Health equity during infancy is more vital than during any other period of life since it puts children on equal footing for life-long health at a time when healthy development is most crucial. Disparities during this stage also put this vulnerable population at risk for disadvantages that can pervade all aspects of life as they age.

Data from the Community Health Foundation of Western and Central New York's Maternal and Child Health Initiative show children of lower socioeconomic status in Central New York are falling behind due to health disparities.

These populations experience higher rates

of teen pregnancy and births, larger proportions of mothers receiving no or late prenatal care, lower infant birth weights, and higher rates of infant deaths. Poverty is the most significant correlating factor. The highest risk zip codes with poor outcomes on two or more of these indicators, have, on average, double the proportion of families in poverty, a factor that will continue to bear negatively on child health beyond birth for the 20,600 young children under the age of 5 living in these high risk zip codes.

Rates of serious childhood asthma create another opportunity for greater equity, as there is significant variation by neighborhood and race or ethnicity. Asthma-related emergency room visits among children ages birth to 14 are about three times higher in zip codes comprised of at least one-third minorities relative to less racially and ethnically diverse areas. Moreover, eight of the ten zip codes across Central New York with the highest asthma rates and at least 50 hospitalizations between 2007 and 2009 are in Onondaga County. The other two are in Madison County. High childhood asthma rates can be found in Herkimer and Cayuga counties as well, but because these areas are not densely populated, the absolute number of hospitalizations reported is just a fraction of what is experienced in urban areas.

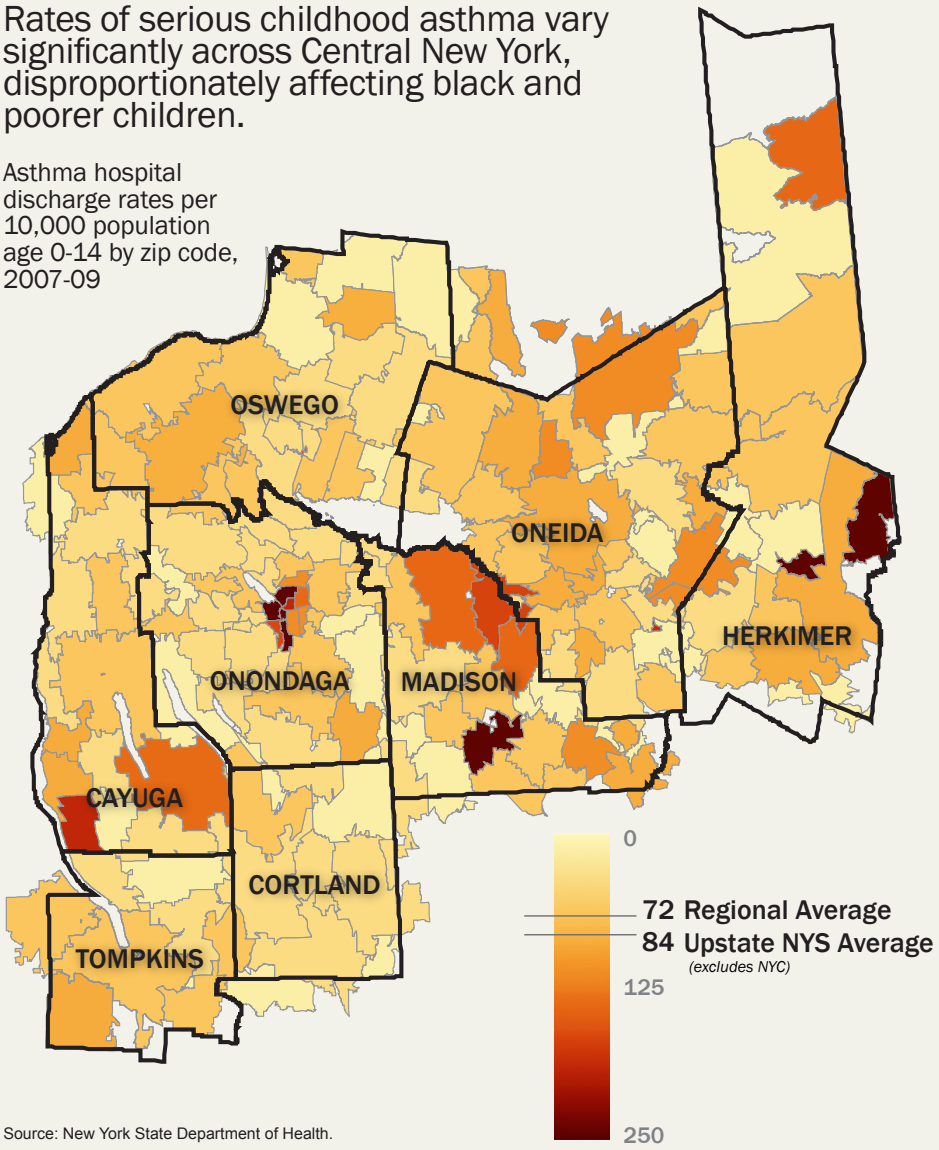
There are many contributing factors. Zip codes with high asthma rates tend to be low-income communities where access to preventive care for manageable conditions like asthma may be compromised due to lack of insurance, the financial burden of co-pays, shortages of specialists and transportation challenges. In urban settings, these communities also tend to be located in areas with fewer parks or open spaces and higher exposure to environmental hazards such as lead, dirty air, and truck exhaust. Moreover, while black children are disproportionately affected, national studies show "[w]hen whites are exposed to the health risks of an urban environment their health is compromised similarly to that of blacks, who more commonly live in such communities."[1]

Troubling racial disparities also exist in Central New York with regards to diabetes management and leg amputations, which are oftentimes the result of gangrene or restriction of blood to the extremities caused by high blood sugar levels. Black diabetic patients in the Syracuse Hospital Referral Region, comprised of the

FIGURE 3

Rates of serious childhood asthma vary significantly across Central New York, disproportionately affecting black and poorer children.

Asthma hospital discharge rates per 10,000 population age 0-14 by zip code, 2007-09



Source: New York State Department of Health.

FIGURE 4

Racial disparities exist in diabetes management and leg amputations.

% Diabetics receiving appropriate management

82% NON-BLACK **vs.** 78% BLACK

Percent of Medicare Diabetic Patients Age 65-75, 2003-7

Leg amputations by race

0.78 NON-BLACK **vs.** 3.63 BLACK

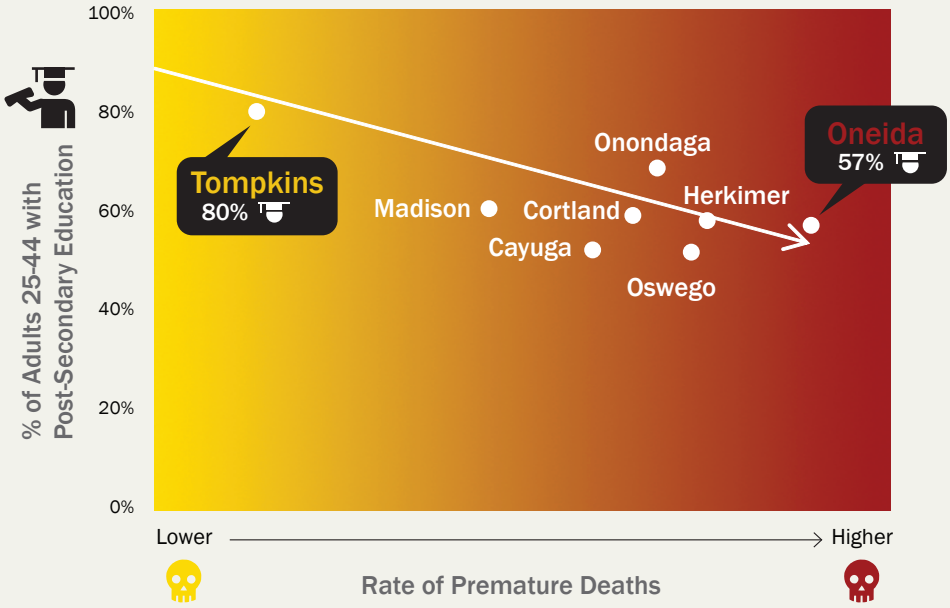
Numbers Per 1,000 Medicare Enrollees, 2003-08

Source: The Dartmouth Atlas of Health Care, The Dartmouth Institute for Health Policy and Clinical Practice.

[1] Thomas LaVeist, Keshia Pollack, Roland Thorpe, Jr., Ruth Fesahazion and Darrell Gaskin, (2011), Place, Not Race: Disparities Dissipate In Southwest Baltimore When Blacks And Whites Live Under Similar Conditions. *Health Affairs*, 30, no.10, 1884.

FIGURE 5

Premature death is related to educational attainment.



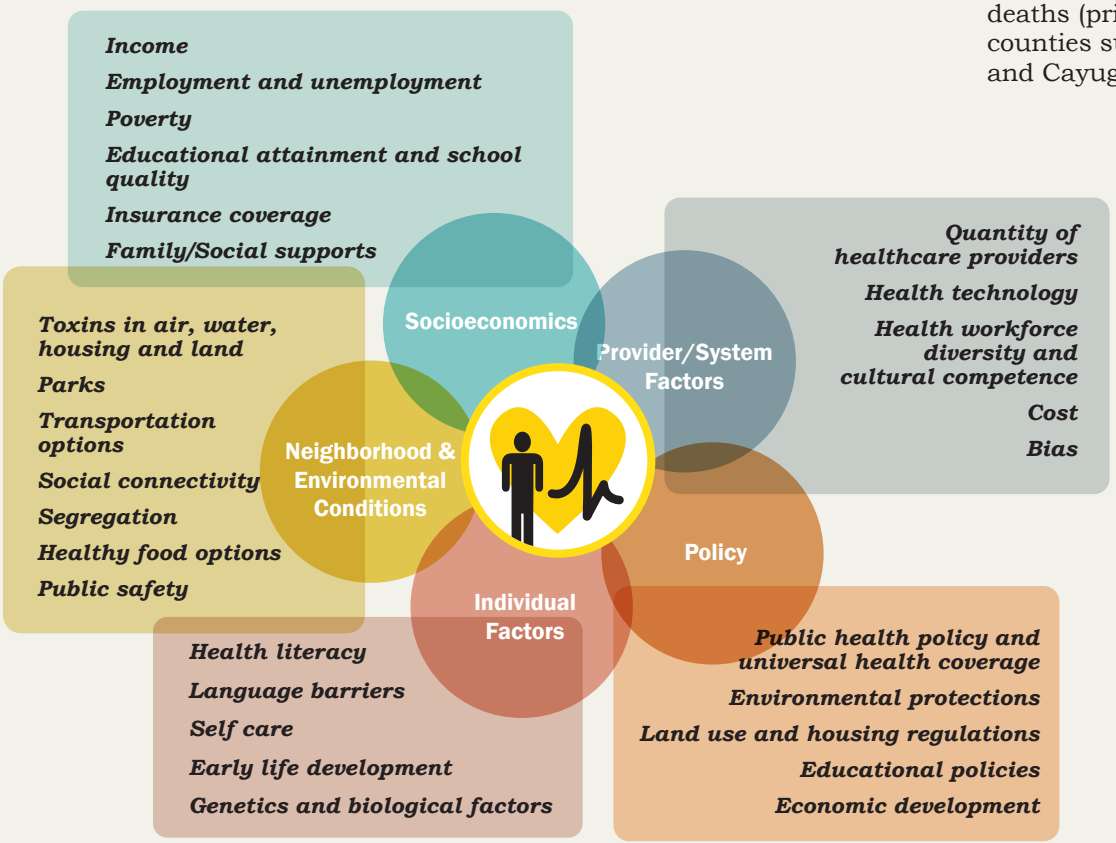
Source: University of Wisconsin Population Health Institute's County Health Rankings 2012.

major hospitals in Onondaga, Oneida and Oswego counties, are 4 percentage points less likely than whites and other non-black patients to receive appropriate treatment for the management of their diabetes. In addition, they are five times more likely to undergo a leg amputation. Because these data reflect the experience of only Medicare patients, insurance coverage, or the lack of it, isn't the source of the disparity. Rather, lack of preventive care and appropriate diabetic management may be the cause. The quality of the hospitals blacks tend to go to and the surgical capacity these institutions have to salvage limbs may also contribute to differences.

Education is another factor that has moved to the forefront as a significant determinant of health and a creator of health divides within populations. In Central New York, there is a notable correlation between premature death and educational attainment. Counties such as Tompkins and Madison where larger percentages of younger adults have completed at least some post-secondary education lose fewer years of life due to premature deaths (prior to age 75) than counties such as Oneida, Oswego and Cayuga where educational

FIGURE 6

Major Determinants of Health & Drivers of Health Inequities



> *The tide is rising and it is lifting all boats, but many are still left behind.*
>
> **J. Michael McWilliams**, MD, PhD, Assistant professor of health care policy and medicine, Harvard Medical School

Source: See Data Sources and Notes for Figure 6.

attainment is relatively lower. The disparity between Tompkins County, where longevity is greatest, and Oneida County, where premature death is at its peak in Central New York, amounts to 2,448 years for every 100,000 individuals – the lifetime of 32 people. Education influences knowledge of risk factors, employment opportunities, access to health insurance, and the risk of living in poverty. It also has generational impacts, with children of more highly educated parents growing up healthier.

Why are some populations healthy while others experience poorer health?

A multitude of interconnected factors are at play. These include the personal choices we make to achieve health through diet, exercise and drug-free living. Economic and social resources we have access to throughout our lifespan – family, education and employment, for instance - also play a significant role in healthy development and the quality of life and health achieved.

The makeup of our physical environment is important too. Communities with clean air and water, walkable neighborhoods, fresh food markets and social connectivity bolster health for residents. Others impede it with toxins and carcinogens, poor housing, unhealthy food choices, and violence.

The healthcare system is also influential. Access to an adequate number of quality providers and the latest health technology foster health. So do providers who are knowledgeable about the patients they serve, the culture they come from, and their unique health care needs.

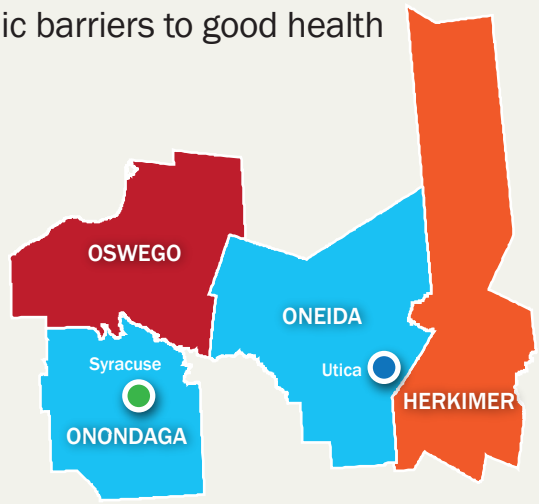
Finally, health is an outcome of a range of federal, state and local policies governing health care access and funding, educational quality, limitations on environmental hazards, and the creation of higher-paying job opportunities for residents.

Because these factors are interconnected, those that detract from health are oftentimes clustered, impacting populations in compounded, cyclical ways. Urban

FIGURE 7

The socioeconomic barriers to good health vary by place.

Geographic differences in economic status, educational attainment, family structure and transportation challenges



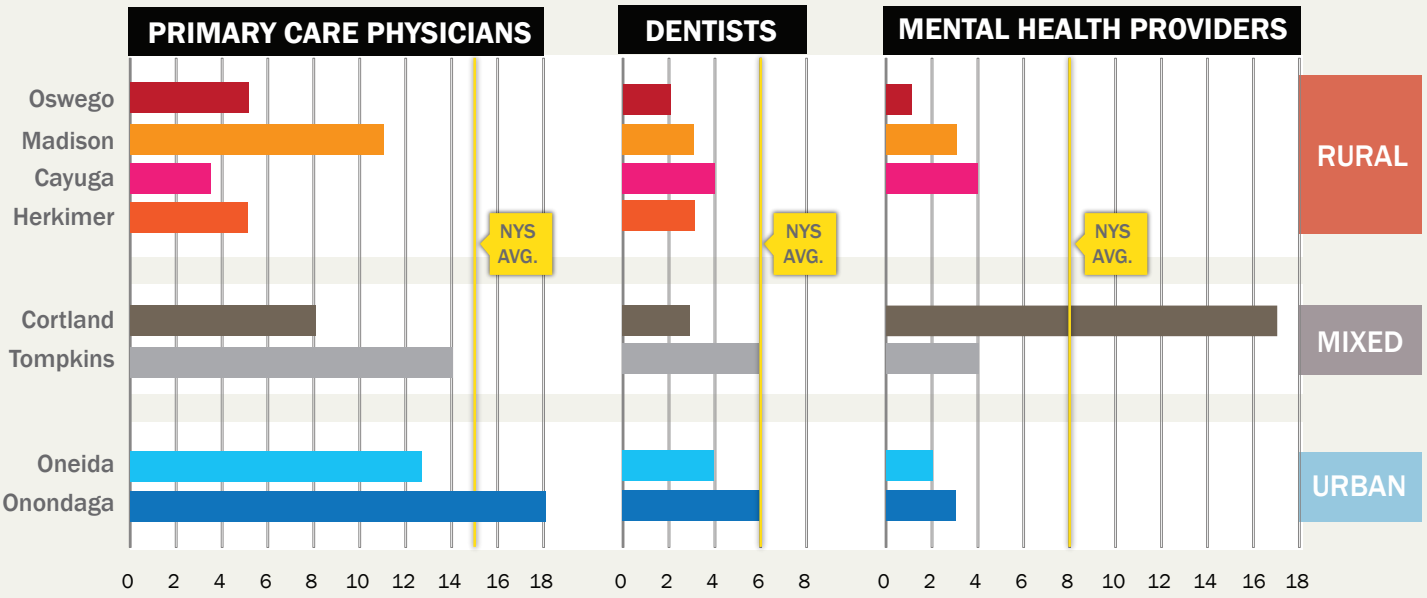
	URBAN			RURAL	
	Onondaga & Oneida Counties	City of Syracuse	City of Utica	Oswego County	Herkimer County
POPULATION	698,237	144,734	61,835	122,220	64,332
% MINORITY	18%	45%	31%	5%	4%
FOREIGN BORN	2%	10%	15%	2%	3%
NO COLLEGE	30%	29%	34%	43%	37%
MEDIAN HH INCOME	$49,343	$30,891	$31,381	$45,333	$42,318
% POVERTY	14%	31%	29%	15%	13%
UNEMPLOYED	6.6%	10.2%	11.4%	6.8%	6.6%
NO VEHICLE	12%	26%	22%	8%	10%
SINGLE PARENT FAMILIES WITH KIDS	35%	60%	51%	33%	33%
RENTAL HOUSING	33%	59%	52%	26%	28%

Source: 2010 Census and 2006-10 American Community Survey.

FIGURE 8

Health care providers are more highly concentrated in urban counties in Central New York, while access in rural areas may be limited by relatively low provider numbers.

Providers per 10,000 population by county



Source: University of Wisconsin Population Health Institute's County Health Rankings 2012 and Center for Health Workforce Studies, School of Public Health at the University at Albany.

communities, for instance, where neighborhood conditions may be less than ideal for optimal health, attract low socioeconomic populations that struggle to afford healthier environments and create areas of concentrated disadvantage. In rural areas, distance from specialized health services and providers, social supports and job opportunities can create significant access barriers.

Central New York's urban areas and rural outskirts are no less challenged. The cities of Syracuse and Utica, for instance, attract up to 7 times the concentration of minorities and immigrants. These areas also see large influxes of refugees, which bring with them different health beliefs and values. There are cultural barriers to overcome, according to Dr. Christopher Morley, an expert on disparities from SUNY Upstate Medical.

Unemployment rates in these areas also run nearly double the regional average, and in the City of Syracuse, one in four households doesn't have a car, creating barriers to employment. The majority of families with children in Syracuse and Utica are single parents, and most live in rental housing. In rural areas like Herkimer and Oswego counties lower levels of college completion limit job opportunities and may lead to the lower household incomes seen.

A larger challenge in rural Central New York is an inadequate number of healthcare providers. The region's rural counties – Oswego, Madison, Cayuga and Herkimer – contain, on average, one-third fewer primary care physicians per capita, compared to urban Onondaga and Oneida Counties, and about one half the number of dentists and mental health providers per 10,000 population. Cayuga County, in fact, ranks 51 out of 62 counties, in terms of access to care, according to a recent study released by the University of Wisconsin and the Robert Wood Johnson Foundation. Herkimer and Oswego counties also rank in the bottom half of counties on this composite indicator reflecting both insurance coverage and the ratio of primary care providers to population. Access challenges are exasperated for the region's population of rural elders who may be dealing with disabilities which increase their need for care and reduce their ability to travel.

Significant variation in individual behaviors plays a critical role in fostering disparities across Central New York, too. Rates of smoking provide an example. While only 13 percent of adults in Tompkins County smoke cigarettes, one in four in Madison, Oneida and Oswego counties do. Among young mothers in Oswego County, these figures are even more startling. Three out of four mothers in the Prenatal Care Assistance Program smoke, according to the 2010-2013 Oswego County Health Assessment, endangering not only their own health but that of their infant.

How can we create a region where all individuals have an opportunity to be healthy and live long?

Achieving health equity will require multifaceted, tailored strategies addressing the many causes of disparities. Solutions will tackle upstream factors that create health gaps by reducing the number of high school dropouts, boosting post-secondary education attendance, connecting residents with jobs, increasing access to fresh food, and removing neighborhood hazards and pollutants.

Eliminating barriers to care will also narrow gaps through greater insurance enrollment, stronger safety nets, and expanded primary care networks.

Technology is also transforming how health care services are delivered, removing geographic barriers and increasing access, especially for rural populations. Telemedicine, remote monitoring, and video consults are ways in which care can be delivered remotely in rural shortage areas. However, to be successful, these solutions require infrastructure, technology on two ends, staffing, training, and insurance reimbursement.

Promotion of diversity and cultural competence of the healthcare workforce is an additional front where progress is needed, especially as the nation is projected to become less homogenous and more diverse. Indeed, racial and ethnic minorities are projected to be a majority by around mid century, yet minorities comprise less than 10 percent of physicians in New York State.

More extensive research and data collection of health outcomes by race, ethnicity, income, geographic location, and educational level are also needed, since measurement and understanding of causal pathways related to disparities are critical to effective management.

Finally, solutions will depend on partnerships among public health agencies, educators, planners, economic development leaders, environmentalists, policy makers, the health industry, physicians, and residents, as causal relationships creating disparities are all interconnected.

> *…scientists and policy makers agree that both the causes and solutions are likely to be complex, multifaceted and interrelated.*
>
> **Dr. Michael Christopher Gibbons**
> in eHealth Solutions for
> Healthcare Disparities

The Genesis Health Project at the University of Syracuse is an example of a nationally recognized, award-winning community-university partnership to reduce disparities experienced by black families living in the City of Syracuse, especially those related to the incidence of obesity, diabetes, and prostate cancer. Dr. Luvenia Cowart, co-founder of the project and a professor at Syracuse University, describes the impetus for the project as "too many funerals of people dying young." What's unique about the initiative is that it is promoting health by engaging individuals in "nontraditional health promoting environments" such as in churches and barbershops and with culturally competent information. Dr. Cowart says the initiative has seen measurable outcomes since it took root in 2004. People are moving more. Blood pressures are down. Clothing sizes have dropped. Meals where fried, fatty foods and sugary treats used to be common now include more baked food, water to drink, and Jell-O.

The Alliance of Communities Transforming Syracuse (ACTS) is another coalition that is making headway in the City of Syracuse and beyond. Boosting insurance enrollment among children has been a top priority, according to ACTS leader Reverend Kevin Agee, after the group identified scores of children who were eligible for the State Health Insurance Program (SCHIP) but not enrolled. By partnering with schools, employers and insurers, 8,000 children, previously uninsured, now have access to care through the New York State-sponsored plan.

Inner-city access to fresh and affordable food has been another top agenda item and has mobilized support to attract a supermarket to South Side Syracuse, which for many years had been a food desert. A food co-op will soon be opening in this poor, primarily black area of the city as well.

Outside the region's metro core, the Rural Health Network of Oswego is partnering with their county health department and the Tobacco Free Network to address the smoking epidemic in this area of the region. Thanks to a federal grant and private support, the initiative is using technology to help visually demonstrate to young women, their target population, the effects of smoking on health and appearance.

Addressing the broader regional issue of physician shortages in rural areas, the Rural Medical Education Program at SUNY Upstate has expanded its effort in preparing physicians to work in underserved rural areas through a formal track program created three years ago that includes rural health courses and hands-on training in rural areas. The program targets student admissions from communities with the largest shortages. These students may not look exactly like your classic medical student, describes Dr. Christopher Morley, Vice Chair for Research in the Department of Family Medicine at SUNY Upstate, but they are more apt to work in their hometown after graduation. Jennifer Welsh from the Admission Office, says about 30 students are currently matriculated in the program, up from 19 students the prior year.

These initiatives highlight just some of the efforts under way to achieve greater health equity in Central New York. What is clear is that while much is being done, there remains much to do. Achieving health equity requires greater equity in health care, but it also calls for greater emphasis on health-promoting communities for all.

Data Sources and Notes

Figures 1 Figures represent rounded numbers and were calculated by applying the best outcome rates to the group experiencing the worst outcomes. For instance, asthma rates outside the City of Syracuse were applied to the population of children in the City of Syracuse to determine hospitalizations that could be avoided if rates in Syracuse matched those outside the city. Providers per capita in urban and mixed urban/rural counties were applied to populations in rural counties where provider concentrations are generally lowest. Rates of premature death in counties having rates under the regional average were applied to counties with rates above the regional average and adjusted for population size to determine potential years that could be saved. The percentage decline in leg amputations represents the percentage difference in leg amputation rates between blacks and non-blacks per 1,000 Medicare enrollees.

Figure 2 High risk zip codes with poor outcomes on at least two of four key indicators for infants are from *Improving Services for Pregnant Women and Children 0-1 in Central New York State* by Lee Ann Huang, Bonnie Hart and Deborah Daro from Chapin Hall at the University of Chicago, prepared for the Community Health Foundation of Western and Central New York in April 2010. The proportion of families with children in poverty by census tract was calculated with data from the 2006-10 American Community Survey.

Figure 3 Asthma emergency department visit rates by zip code are from the New York State Department of Health and reflect 2007-09 SPARCS data.

Figure 4 Proportion of diabetics receiving appropriate management and rates of leg amputations by race are from the Dartmouth Atlas of Health Care based at The Dartmouth Institute for Health Policy and Clinical Practice and reflect rates by race for the Syracuse Hospital Referral Region.

Figure 5 Rates of premature death and the population proportions with postsecondary schooling are from the University of Wisconsin Population Health Institute's 2012 County Health Rankings. Premature death reflects years of potential life lost prior to age 75. Figures are age adjusted and reflect three-year averages between 2006 and 2008.

Figure 6 Major determinants of health care are from a variety of sources listed in the bibliography here.

Figure 7 Population and socioeconomic characteristics of different areas within Central New York were calculated using data from the 2006-10 American Community Survey and the 2010 Census.

Figure 8 The number of primary care physicians, dentists and mental health providers by county are from the University of Wisconsin Population Health Institute's 2012 County Health Rankings. These reflect 2009 data from the Health Resources and Services Administration Area Resource File. Per capita figures were calculated using 2010 Census data. New York State averages for primary care physicians and mental health providers are from the same sources. Dental provider data for the state are from *A Profile of Active Dentists in New York* by the Center for Health Workforce Studies,University of Albany, January 2011.

Bibliography

Adler, N. E. and D. H. Rehkopf. (2008). U.S. Disparities in Health: Descriptions, Causes, and Mechanisms. *Annual Review of Public Health*, 29, 235-52.

Bleich, S. N. et al. Social Context Explains Race Disparities in Obesity Among Women. J*ournal of Epidemiology Community Health*, 64, 465–469.

Braveman P. and S. Gruskin. (2003). Defining equity in health. *Journal of Epidemiology Community Health*, 57, 254–258.

California Newsreel. 2008. *Backgrounders from the Unnatural Causes Health Equity Database*.

California Newsreel. 2008. *Unnatural Causes. Is inequality making us sick?* Transcripts from the documentary. Available at http://www.unnaturalcauses.org/transcripts.php.

Correspondence with Beverly Grossman, Researcher, Community Healthcare Association of New York State, April 17, 2012.

Correspondence with Dr. Christopher Morley, Vice Chair for Research, Department of Family Medicine SUNY Upstate Medical University and Director, Central Region Office, New York State AHEC System, May 8, 2012.

Correspondence with Reverend Kevin Agee, Alliance of Communities Transforming Syracuse, May 2 and 5, 2012.

Correspondence with Jennifer Welch, SUNY Upstate Medical University, Admission Office, May 7, 2012.

Correspondence with Dr. Luvenia Cowart, Co-founder of Genesis Health Project at the Syracuse University, and Professor of Practice, Department of Health and Wellness, Syracuse University, May 7, 2012.

Harvard Medical School (2009). Universal Coverage May Narrow Racial, Ethnic And Socioeconomic Gaps In Health Care. *ScienceDaily*. Retrieved March 30, 2012.

Hill, Tanisha, Leroy Graham and Varada Divgi. (2011). Racial Disparities in Pediatric Asthma: *A Review of the Literature. Current Allergy Asthma Report*, 11, 85-90.

Gibbons, Michael Christopher. (2008). *eHealth Solutions for Healthcare Disparities*. New York, NY: Springer.

Glied, Sherry and Peter C. Smith. The Oxford Handbook of Health Economics. Oxford University Press, USA, 2011.

Lane, S. et al. (2008). Environmental Injustice: Childhood Lead Poisoning, Teen Pregnancy and Tobacco. *Journal of Adolescent Health*, 42, 43–49.

LaVeist, Thomas, et al. (2011). Place, Not Race: Disparities Dissipate In Southwest Baltimore When Blacks And Whites Live Under Similar Conditions. *Health Affairs*, 30, no.10, 1880-1887.

Saha, S., J. Arbelaez and L. A. Cooper. (2003). Patient–Physician Relationships and Racial Disparities in the Quality of Health Care. *American Journal of Public Health*, 93:10, 1713-1719.

Terry, K. Telemedicine Reduced Rural Health Disparities, Says UnitedHealth. *InformationWeek*. July 28, 2011.

United States Department of Health and Human Services. *Healthy People 2020: Disparities*. Available at http://www.healthypeople.gov/2020/about/disparitiesAbout.aspx.

University of Wisconsin, Population Health Institute. (2012). *County Health Rankings & Roadmaps: 2012 Rankings New York*.

UT Southwestern Medical Center.. (2010). Inequities exists in disease burden, health care and access for minority children. *ScienceDaily.* Retrieved March 30, 2012.

Community Health Foundation of Western & Central New York

www.chfwcny.org

Main Office
Larkin at Exchange
726 Exchange Street
Suite 518
Buffalo, NY 14210-1485

Syracuse Office
431 E. Fayette Street
Suite 250
Syracuse, NY 13202