



NEW
YORK
STATE

Department
of Health

2014 Annual Report



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Message from the Commissioner

Welcome to the New York State Department of Health's annual report.

Ebola. DSRIP. Medical marijuana. For the New York State Department of Health, 2014 was a monumental year, filled with the challenges of an international health crisis, an evolving health care system, and the ongoing demands of safeguarding the health of 20 million people. Whether it was developing strategies to end the AIDS epidemic, securing federal funds to overhaul our health care delivery system or reducing the number of uninsured New Yorkers through NY State of Health, our state's health insurance marketplace, the Department met each of these challenges with the usual hard work and expertise, tapping into its reservoirs of knowledge and experience, and collaborating with its numerous partners.

The modern health care industry is in a state of flux. Rising costs rooted in a fee-for-service system have become unsustainable, and the growing prevalence of chronic diseases are taxing the entire system. An aging population creates additional needs. Faced with these challenges, the Department of Health is working aggressively to promote prevention as the best approach to comprehensive health care, to keep the healthy well, while treating the ill with the best evidence-based care. Doing so requires embracing health information technology, adopting new models of payment and reshaping and building our health care workforce to align with these new demands.

Overseeing the health of nearly 20 million New Yorkers is a major undertaking, and 2014 was no exception. Health care reform remained

a priority as the Department laid out its State Health Innovation Plan and its vision for a new advanced primary care model. In coordination with those efforts, the Department enlisted the state's providers to participate in the Delivery System Reform Incentive Payment Program, which seeks to reduce avoidable hospital admissions while enhancing preventive services. Both programs draw heavily on the Prevention Agenda 2013-2017 for their population health improvement aspects. At the same time, we continued developing the state's Medical Marijuana Program, announced our stance against high volume hydraulic fracturing and prepared the health care system to diagnose and treat Ebola, which had killed thousands on another continent. All the while, NYSDOH continued doing surveillance of the state's health care facilities and working in the community to prevent the spread of communicable disease and improve health outcomes.

The success of all these efforts hinges as always, on the talents and skills of roughly 4,800 employees, who are spread out across the state in central, regional and district offices, and five state-run health care facilities. From Albany to Buffalo, Manhattan to Syracuse, the mission is the same: to protect the health, productivity and well-being of all New Yorkers.

In this Annual Report, the Department will highlight some of our biggest accomplishments of the year as well as its ongoing projects. The report will demonstrate how the Department's policies and initiatives are working together to achieve the Triple Aim – better individual care, improved population health and lower costs.

A handwritten signature in black ink that reads "Howard Zucker M.D." The signature is written in a cursive, slightly slanted style.

Howard A. Zucker, MD, JD

Commissioner

New York State Department of Health



Preface

Since 1901, the New York State Department of Health (NYSDOH) has been overseeing the health, safety and well-being of the residents of New York. Early efforts focused on sanitation and vaccinations, emerging sciences that were fast becoming important weapons in the prevention and treatment of infectious disease. Over the years, the agency's responsibilities have grown significantly.

In 2014, NYSDOH received accreditation from the Public Health Accreditation Board (PHAB), which reinforced what many already knew: that the

Department meets the highest possible standards in public health. Achieving accreditation took years of hard work involving 100 employees, the submission of 200 documents and a site visit from PHAB. Using examples from our various programs, including environmental health, communicable disease, injury prevention, emergency preparedness, and maternal and child health, the Department demonstrated it conformed with national standards of public health, as defined in 12 different domains encompassing governance, administration and management, and the 10 essential public health services defined by the Centers for Disease Control and Prevention (CDC) and the National Public Health Performance Standards Program. For this, NYSDOH was required to demonstrate we perform ongoing assessments, investigate health problems, and maintain a public health lab. New York became the sixth state in the nation to achieve PHAB accreditation.

PHAB was not the only accreditation the Department received in 2014. NYSDOH's Institutional Review Board achieved accreditation from the Association for the Accreditation of Human Research Protection Programs (AAHRPP), making it one of only two state health departments in the United States to receive this designation. The AAHRPP accreditation demonstrates to researchers worldwide that New York has a top-quality Institutional Review Board that exceeds government standards. The Department also received the America's Health Rankings Champion award from the United Health Foundation and the Association of State and Territorial Health Officials.



Drs. Howard Zucker and Gus Birkhead unveil the plaque celebrating the Department's national accreditation by the Public Health Accreditation Board. At top: Dr. August Wadsworth (seated front and center) with his staff at the Yates Street Laboratory circa 1915.

Governance

The New York State Public Health Law (PHL) defines the Department's broad responsibilities, which include, but are not limited to, overseeing reporting and control of disease, maintaining vital records, and promoting the prevention and control of disease. The PHL establishes the authority of the state Health Commissioner, which includes, but is not limited to, investigating epidemics and causes of disease, enforcing public health law and the State Sanitary Code, and inspecting state institutions. The powers and duties of the Department and Commissioner are set forth in PHL § 201 and 206, respectively.

The New York State Public Health and Health Planning Council (PHHPC) is also responsible for overseeing certain aspects of public health. PHHPC is comprised of the Commissioner and 24 members appointed by the Governor, and it possesses advisory and decision making authority with respect to New York State's public health and health care delivery system. PHHPC is charged with adopting and amending the Sanitary Code and the regulations that govern health care facilities, home care agencies and hospice programs. PHHPC also makes decisions concerning the establishment and transfer of ownership of those facilities and agencies. PHHPC makes recommendations to the Commissioner concerning major construction projects, service changes and equipment acquisitions relating to health care facilities and home care agencies. PHHPC also advises the Commissioner on issues related to the general preservation and improvement of public health. PHHPC's powers and duties are set forth in PHL § 225. Current members of the Council and committee membership can be found [here](#).

Programs and Services

NYSDOH has provided public health services for over 100 years and administers a wide range

of public health programs, directly or through contracts, that address disease prevention and control, environmental health protection, promotion of healthy lifestyles, and emergency preparedness and response. The Department also conducts health care surveillance in the state's hospitals, home care agencies, and nursing homes; conducts research, and maintains diagnostic and reference laboratories at the Wadsworth Center; manages the Medicaid program; administers New York's health plan Marketplace; and operates five health care institutions.

Resources

In 2014, the Department employed 3,367 people in its central office, three regional offices, three field offices, and nine district health offices across the state; an additional 1,470 work in the five DOH-operated health care institutions. In the 2014-15 fiscal year, the Department's appropriations totaled \$128.1 billion. Of this, approximately \$120 billion was Medicaid-related, \$7.9 billion supported public health initiatives, and \$189 million was allocated to institutions operated by the Department.

Local Health Departments

In New York, 57 county health departments and the New York City Department of Health and Mental Hygiene provide public health services at the local level. New York is one of 26 states where the provision of public health services is decentralized, meaning local health departments operate under the administrative authority of local governments. However, NYSDOH provides environmental health services in 21 counties where local health departments do not have this capacity. While federal and state public health statutes and regulations guide the process, each local health department addresses the needs of its own community.



The Public Health and Health Planning Council meets six times a year to discuss issues of vital importance to public health and safety.



Promoting the Health of All New Yorkers

Keeping New Yorkers healthy is at the core of the Department's work – and doing so requires addressing dozens of initiatives simultaneously, be it the prevention of chronic disease, a reduction in teen pregnancy or the promotion of vaccines to reduce life-threatening diseases. These initiatives are the focus of the Prevention Agenda 2013-2017, the blueprint for state and local action to improve the health of New Yorkers in five priority areas and to reduce health disparities.

During 2014, the current Prevention Agenda's second year, the Department and its partners demonstrated progress in several key areas, including a reduction in hospitalizations among adults aged 18 and up; a decrease in the number of hospitalizations due to falls among adults aged 65 and up; and a decline in teen pregnancies in adolescents aged 15 to 17. At the same time, the Department and its partners have increased the percentage of weight assessments for children ages three to 17 at outpatient visits; reduced tobacco use in high school students; and increased the percentage of toddlers under age three who have received nearly all recommended vaccinations. The incidence of chlamydia in women aged 15 to 44 has gone down, as has the percentage of adolescents reporting that they used prescription pain killers for non-medical reasons. With three years left, the Department continues to strive toward meeting its prevention goals, which can be found [here](#).

Keeping Moms and Babies Healthy

Good health starts with a healthy pregnancy and continues into infancy and childhood. Whether it's promoting better nutrition in newborns or promoting the use of vaccines, the Department strives to protect the well-being of the state's youngest citizens in myriad ways.

Pregnancy, Birth and Infancy

Protecting the health of women of reproductive age who are pregnant is essential to a healthy population. The Department's Maternal, Infant and Early Childhood Home Visiting (MIECHV) initiative provides home visits that improve the health and well-being of new moms and their children. In 2014, the MIECHV initiative visited 2,293 families in six high-risk counties. The effort improved screenings for alcohol use and domestic violence, while educating moms about family planning and breastfeeding.



Meanwhile, the New York State Perinatal Quality Collaborative (NYSPQC) collaborates with birthing hospitals, perinatal care providers and other key stakeholders to safeguard the health of pregnant women and newborns using evidence-based practice guidelines. The NYSPQC is working to reduce scheduled deliveries without medical indication before 39 weeks and improve the identification and management of maternal hemorrhage and hypertension, the two leading causes of maternal morbidity and mortality in New York. From 2010 to 2014, 17 participating Regional Perinatal Centers reported that the number of scheduled deliveries without medical indication between 36 and 38 weeks gestation fell 97%. In addition, the NYSPQC is working to ensure newborns are not discharged from the NICU prematurely and that central line associated blood stream infections in the NICU are reduced.

The Department also works with hospitals and health care providers to encourage breastfeeding for new moms and infants. Breastfeeding delivers numerous health benefits to infants and moms. Through the *Great Beginnings NY* initiative, leaders and staff at 68 hospitals outside New York City (which has a separate companion initiative overseen by the NYC Department of Health and Mental Hygiene), were recruited to improve breastfeeding support for pregnant and postpartum women. Hospital leaders, administrators and staff also participated in six bi-monthly webinars to increase awareness, knowledge and skills to implement evidence-based maternity care practices that support breastfeeding.

Expanding Immunizations

Vaccines protect young children from diseases that were once deadly. As part of the Prevention Agenda, the Department is working to boost the percentage of children aged 19 to 35 months who have completed their early childhood immunizations. According to the National Immunization Survey, the numbers of fully immunized toddlers in NYS has increased from 63.7% in 2012 to 74.3% in

2013 (the most recent year that data is available), an achievement that was recognized by the Centers for Disease Control and Prevention at the National Immunization Conference in Atlanta, Georgia in September 2014.

During the year, the Department took additional steps to improve early childhood immunizations. In January, the agency implemented online vaccine ordering using the New York State Immunization Information System (NYSIIS) and made online ordering a requirement for all practices in April 2014. Online vaccine ordering ensures that providers have the vaccines they need for their patients and helps assure complete reporting of vaccines into NYSIIS. In July, New York's school immunization requirements were updated to be more consistent with the Advisory Committee on Immunization Practices (ACIP) recommendations. Children entering or attending child care, pre-kindergarten, public and private schools in New York State are now required to receive all age-appropriate doses of all required vaccines, at appropriate intervals according to the ACIP schedule.

Minimizing High-Risk Behaviors

NYSDOH works hard to prevent New Yorkers from engaging in behaviors that jeopardize their health and well-being. Multiple initiatives in 2014 helped make the healthy choice the easiest choice.

Tobacco Control

Tobacco use is the single most common cause of preventable death and disease, and is responsible for 30% of all cancer deaths and 85% of all lung cancer deaths. People who smoke are two to four times more likely to develop cardiovascular disease, too.

The Department has a comprehensive tobacco control program that educates the public and decision makers on the policies that support a tobacco-free environment. It supports a health care system that routinely provides evidence-based tobacco cessation treatments. And it embraces



media campaigns that promote and support the value of quitting. In 2014, the Department pursued these initiatives on several fronts to advance the cause of tobacco control. Among its key successes:

- *Smoke-free housing.* NYSDOH and its contractors worked with local housing authorities and other property managers to pass 42 smoke-free policies in more than 6,500 low income multi-family units, a move that protected residents from the harms of second-hand smoke.
- *Health Systems for a Tobacco-Free New York.* Knowing that low-income individuals as well as those with mental illness are more likely to smoke, this grant program works to engage health care systems to improve services for tobacco dependence in these populations.
- *Public awareness.* A new media campaign in 2014 gave the public a graphic depiction or emotionally evocative portrayal of the effects of tobacco. Nearly four out of five smokers in New Yorkers reported seeing at least one TV ad during the campaign, which aired between May and October. Calls to the NYS Quitline show a marked increase during the times these ads run.

Opioid Overdose Prevention Program

In June 2014, Governor Cuomo announced a statewide initiative to combat the state's growing heroin and opioid epidemic. The Department worked with the Office of Alcoholism and Substance Abuse Services (OASAS) and the Office of General Services Media Services Center to create an awareness campaign that uses social media, advertising and other outlets to educate youth, parents, health care professionals and others about the risks of heroin and other opioids.

The Department also expanded its Opioid Overdose Prevention Program, which began in 2006 and grew in 2014 to 210 registered programs, more than double what it was in 2013. Through the end of 2014 more than 45,000 individuals have been trained as opioid overdose responders and equipped with naloxone, which has been administered more than 1,200 times. The number of reversals surged from 170 in 2013 to almost 400 in 2014.

In 2014, the Department began working with the Division of Criminal Justice Services, OASAS, Albany Medical Center, and the Harm Reduction Coalition (HRC) to train over 5,000 law enforcement officials and equip them with naloxone. One law enforcement officer administered naloxone less than an hour after he received the training. The law enforcement curriculum has been modified for firefighters as well. In addition, NYSDOH is working with the Department of Corrections and Community Supervision and HRC to train incarcerated individuals prior to release and provide them with the option of receiving naloxone upon release. The training will eventually expand to all 54 correctional facilities in the state and be inclusive of families.



Left: Governor Cuomo's Combat Heroin campaign provided information and created awareness on the hazards of heroin and opioid addiction. Right: The Department has continued to expand training on the use of naloxone, a drug that immediately reverses a heroin overdose and saves lives.



In 2014, the Department began spreading awareness of Governor Cuomo's goal to end the HIV/AIDS epidemic.

Ending the AIDS Epidemic

In the early 1980s, gay men were succumbing to a mysterious new illness that wreaked havoc on their immune systems and ultimately killed them. Scientists identified it as acquired immune deficiency syndrome, or AIDS. New York quickly became the epicenter of the disease. Thirty-three years later, Governor Andrew M. Cuomo announced a three-point plan to end the epidemic by:

- Identifying persons with HIV, the virus that causes AIDS, who remain undiagnosed and link them to health care.
- Linking and retaining persons diagnosed with HIV in health care to maximize virus suppression so they remain healthy and prevent further transmission.
- Facilitating access to Pre-Exposure Prophylaxis (PrEP) for high-risk persons, to keep them HIV negative.

The goal is to reduce the number of new HIV infections to 750 by the end of 2020 from an estimated 3,000 in 2013. Meeting this goal will achieve the first ever decrease in HIV prevalence in New York State and maximize the use of life-saving treatments while disrupting transmission of HIV. The effort will move New York from its history of having the worst HIV epidemic in the country to a future where new infections are rare and those living with the disease have normal lifespans with few complications.

In 2014, steps were taken through legislation to advance the effort by eliminating written consent for HIV testing, by working with partners to set a 30% rent cap for approximately 10,000 New York City residents who are clients of the city's HIV/AIDS Services Administration (HASA), and by enhancing the sharing of surveillance data to improve patient linkage to and retention in care. In October, Governor Cuomo created the Ending the Epidemic

Task Force, which was charged with developing New York's Blueprint to end the epidemic. Recommendations and strategies in the blueprint will evolve with new technologies and policy advances so the document can remain useful and relevant through 2020.

Additionally in 2014, NYS received funding for a project that will link New York's largest Qualified Entity (QE) (formerly regional health information organization), Healthix, Inc., to New York State's HIV surveillance system. The three-year project establishes a data communication link that is designed to enhance New York's ability to collect data via QEs and, eventually, via the Statewide Health Information Network of New York (SHIN-NY). The project enables the AIDS Institute to assess the quality of its current surveillance data, engages out-of-care patients, and expands HIV care continuum models that are widely used to describe HIV disease in New York. Work began in the fall of 2014. The agreement also lays the groundwork for other entities in the Department to receive Healthix and other QE data for public health purposes as needs are identified.

Screening for Hepatitis C

Approximately 200,000 New Yorkers are living with hepatitis C viral infection. On January 1, a new law went into effect that requires hospitals and primary care providers to offer hepatitis C screening to all New Yorkers born between 1945 and 1965 who receive inpatient hospital care or primary care. Estimates show that up to 150,000 of those who are infected are unaware of their status. The new law increases HCV testing and ensures timely diagnosis and linkage to care. In support of the law, multiple steps were taken to create awareness, including a public service announcement, a webcast and state stakeholder meetings for provider input.

Preventing Teen Pregnancy

Adolescent girls who become pregnant often suffer multiple socioeconomic consequences, including lower academic achievement, more poverty and



greater challenges in childrearing. The Department strives to reduce teen pregnancy and has made significant progress in the last two decades. Working with other agencies and stakeholders, NYSDOH has adopted a public health approach that integrates positive youth development with pregnancy prevention. The Department also uses evidence-based programs that have been scientifically proven to change behavior. These include delaying sexual activity, increasing condom or contraceptive use for sexually active youth, decreasing the number of sexual partners, and reducing pregnancy among youth. NYSDOH has worked diligently to improve access to reproductive health and family planning services for teens in their local communities. Approximately 100,000 adolescents received comprehensive educational and health services in 2014.

Preventing and Controlling Chronic Disease

Obesity. Cancer. Diabetes. We live in an era where chronic diseases have overtaken acute ones as the most pressing health problems facing our communities. The Department strives to help patients better manage these conditions while developing policies that diminish the prevalence of these diseases.

Obesity

The lack of adequate nutritious food – or food insecurity – is a public health concern that affects the well-being of New York’s most vulnerable populations. Food insecurity is often closely related to unhealthy eating patterns that lead to obesity, and the onset of chronic diseases such as hypertension, diabetes and osteoporosis. The Department administers several programs that work to break this cycle:

Hunger Prevention and Nutrition Assistance Program (HPNAP). In 2014, HPNAP provided more



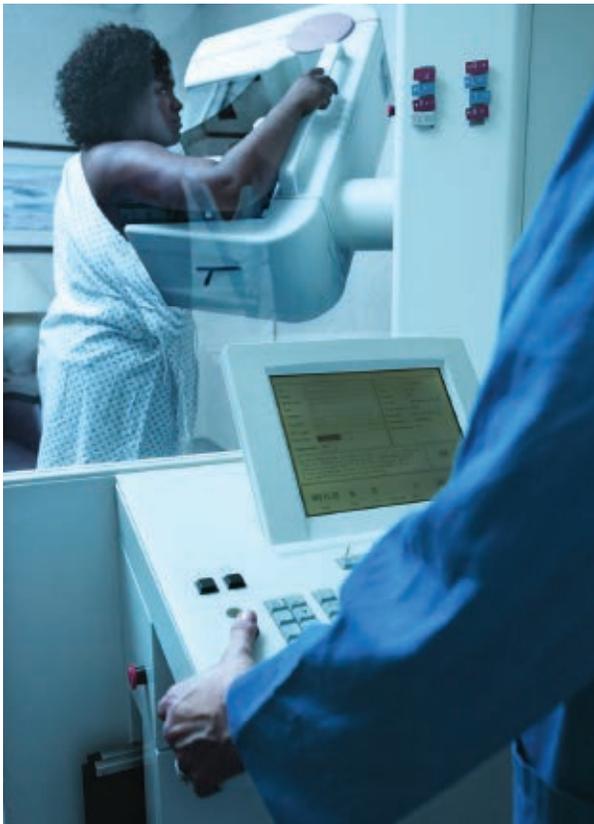
than two million meals through a network of 2,400 emergency food providers. The program offers healthy options, such as fresh produce, whole grains and low-fat milk products to people who use food pantries, soup kitchens and shelters.

Just Say Yes to Fruits and Vegetables. This is an educational initiative that teaches people how to use the foods provided and make the most of their food dollars. More than 50,000 people participated in these nutritional sessions in 2014.

The Women, Infants, and Children (WIC) program. Every month, WIC provides supplemental food, nutrition education and counseling, breastfeeding support, and links to health and social services for almost 500,000 low-income eligible women and children. Foods in WIC are lower in fat and higher in fiber, and include low-fat milk, whole grain breads and cereals, and vegetables and fruits. In 2014, the program increased the monthly vegetable and fruit allowance for children from \$6 to \$8 and continues to see declining rates of obesity among children under the age of five who participate in WIC.

The Child and Adult Care Food Program (CACFP). CACFP improves the nutritional quality of meals and snacks served in participating day care programs by establishing minimum standards and providing reimbursements for qualifying meals and snacks. In 2014, CACFP provided nutritious meals to more than 340,000 low-income children and disabled adults daily, an increase of more than 7% over 2013.





Cancer

Medical advances in recent decades have made cancer screenings a critical tool in the prevention of cancer. Early detection can lead to early treatment, and ultimately, better survival rates. To that end, the Department's Cancer Services Program (CSP) works with community organizations to provide comprehensive breast, cervical and colorectal cancer screenings to uninsured and underinsured women 40 and older, and to men 50 and older. In 2014, over 30,000 adults received at least one CSP-funded breast, cervical, or colorectal cancer screening test. The tests resulted in 314 breast cancer diagnoses, 135 cervical cancer diagnoses, and 437 colorectal cancer diagnoses, often at earlier stages when treatment is more successful.

The CSP also links patients to the care they need if they do have cancer, including enrollment in the Medicaid Cancer Treatment Program (MCTP). Through the MCTP a total of 429 adults received full Medicaid coverage throughout the course of the treatment in 2014 – 335 for breast cancer, 51 for cervical cancer, 24 for colorectal cancer, and 19 for prostate cancer treatment.

To further enhance screening efforts, the Department worked with the Community Health Care Association of New York State (CHCANYS) and Island Peer Review Organization (IPRO) to develop a cancer screening registry to improve screening rates at 35 Federally Qualified Health Centers and their affiliates. These efforts were part

of a five-year demonstration project to develop and use a cancer screening registry within the CHCANYS Center for Primary Care Informatics (CPCI). Colorectal cancer screening rose from 28% in December 2013 to 43.5% in December 2014. Meanwhile, cervical cancer screening rates rose 3.8%, and breast cancer screening rates rose 4%.

NYSDOH continues to investigate areas of the state with unusually high numbers of cases. In 2014, it completed one investigation of breast cancer in Suffolk County, and updated another one on acute myeloid leukemia in Putnam County. The New York Cancer Registry was acknowledged as being "excellent" by the CDC in 2014, based on the completeness and quality of data submitted in 2013.

Diabetes

More than 7% of New York adults are diagnosed with prediabetes, a condition in which blood glucose is elevated but not high enough to be called diabetes. Having prediabetes significantly increases one's risk for type 2 diabetes. Without lifestyle changes to improve health, 15% to 30% of people with prediabetes will go on to develop type 2 diabetes within 10 years of their initial prediabetes diagnosis.

The National Diabetes Prevention Program (NDDP) sponsored by the CDC is an evidence-based lifestyle program that lowers the risk for developing type 2 diabetes. New York State leads the nation in securing access to the National Diabetes Prevention Program. New York has more than 350 trained NDPP lifestyle coaches, and 67 unique NDPP programs pending CDC recognition. In 2014, the state held 193 NDPP workshops for 1,700 adults.



Hypertension

Hypertension is a leading cause of heart disease and stroke. High blood pressure affects one in three adults in the U.S., and half do not have their condition under control. New York is one of 10 states to have received a grant from the Association of State and Territorial Health Officials (ASTHO) to run a learning collaborative with three Federally Qualified Health Centers (FQHCs) and their local departments of health. The project aims to improve hypertension control by 10%, and to identify patients who are undiagnosed. Data generated and reported in 2014 showed that the effort improved hypertension control, and identified 21 patients with undiagnosed hypertension in three FQHCs. The data also revealed that more than 62% of the state's Medicaid beneficiaries are adhering to their hypertension treatments.

Promoting a Safe and Healthy Environment

Health is affected by the air we breathe, the water we drink and the food we eat, as well as by the contaminants we touch. At the Center for Environmental Health, scientists, engineers, sanitarians, physicians, educators, researchers and other public health professionals work together to promote healthy environments and protect people in the places they live, work, learn, and play in New York State. The Department's Prevention Agenda calls for promoting a healthy and safe environment. In 2014, the Department continued making strides toward a more healthy state, both indoors and out.

A Closer Look at the Use of High-Volume Hydraulic Fracturing

After years of study, the Department of Health completed its public health review of high-volume



hydraulic fracturing (HVHF) in shale gas development in December. In conducting its public health review, the agency reviewed and evaluated the scientific literature, and sought input from outside public health experts. It also conducted field visits and held discussions with health and environmental authorities in states where HVHF activity is taking place. In addition, NYSDOH spoke with local, state, federal, international, academic, environmental and public health stakeholders. In the end, Commissioner Dr. Howard Zucker recommended that New York not move forward with HVHF. The findings from the public health review were incorporated into the Department of Environmental Conservation's Final Supplemental Generic Environmental Impact Statement on HVHF. The public health review is available [here](#).

Ambient Water Quality

Under the federal Clean Water Act (CWA), the Department of Environmental Conservation (DEC) has primary regulatory authority over the discharge of pollutants into the ambient waters of the state, and sets state ambient water quality standards. The CWA also requires states to periodically review and update the regulations used to derive ambient water quality standards, and the standards themselves.

To do so, DEC works with the Department of Health. In 2014, NYSDOH staff made substantial contributions to a major revision of these regulations and completed documentation to support new standards for 50 chemicals or chemical classes. The effort demonstrates once again that DOH and DEC have been indispensable partners in setting human-health based ambient water quality standards for over 30 years.



Dr. Zucker spoke out against hydrofracking at a cabinet meeting in December.



A member of the Saint Regis Mohawk tribe displays his catch, a smallmouth bass.

Partnering with the Saint Regis Mohawk Tribe

As a result of years of industrial pollution in the areas surrounding the Akwesasne Reservation, the Saint Regis Mohawk Tribe (SRMT) has avoided eating local fish and game. The subsequent decline in hunting and fishing practices created a loss of culture, traditions and language. With improvements to the environment and promising new data, SRMT wanted to reclaim traditional practices and encourage the health benefits of locally obtained food. The Department partnered with the tribe on a three-year community participatory project that ended in 2014. The goal was for SRMT to develop and issue new fish and game advice. The Department collaborated with the tribe to use focus groups, interviews and surveys to create advice that was developed by the community for the community.

Lake Ontario Fish Advisory Changes

The lower Niagara River and Lake Ontario are two of New York's most heavily fished waters. In 2014, Department staff evaluated environmental contaminant data from nearly 400 fish collected from these bodies of water. The data were provided by the Department of Environmental Conservation, which collected and analyzed the fish for several top-priority contaminants, using funding from the U.S. Environmental Protection Agency's Great Lakes Restoration Initiative.

The data show considerable decreases in contaminant levels for popular sport fish such as Chinook and coho salmon; rainbow, lake, and brown trout; and smallmouth bass, which means reduced exposure for people who eat these fish. The Department's review of these data resulted in a relaxation of its consumption advice for salmon

and trout species in Lake Ontario and connected waterbodies including the lower Niagara River, Irondequoit Bay, Oswego River, Salmon River, and the St. Lawrence River. The new advice allows anglers to enjoy greater use of these resources while making healthier choices about the fish they eat.

A New Occupational Health Clinic in Western New York

Every year, thousands of workers in New York get sick or are injured on the job. The Occupational Health Clinic Network assists New Yorkers by helping them return to work quickly and safely by preventing disease and injuries. In 2014, the Department opened a new clinic called the Center for Occupational Health and Environmental Medicine of Western New York. The clinic is affiliated with the Erie County Medical Center, and located in Buffalo, where it serves residents and workers in the state's Western Region. The Occupational Health Clinic Network, the only network of its kind in the country, consists of 11 clinics located throughout the state, including a clinic specializing in farm worker health and safety. The network offers specialized medical diagnoses, high-quality care, and support services.

Alternative Energy Photovoltaic Farm

The New York State Veterans Home at Oxford, a 242-bed skilled nursing facility serving veterans and



Top: The Center for Occupational and Environmental Medicine at Erie County Medical Center opened in 2014 and will serve people with work-related health needs. Bottom: Dr. Wajdy L. Hailoo, program director of the Center for Occupational and Environmental Medicine at ECMC, talks to a patient.



their qualified dependents in New York's Southern Tier, is in the planning and design approval stages of developing an alternative energy photovoltaic array or "solar farm." This "farm" will be installed on the campus, specifically on the footprint of the former facility, and will encompass approximately five acres. It is anticipated that the farm will provide approximately 30% of the facility's electrical usage, which will save considerable operating funds. The effort will help the Department comply with the Governor's Executive Order 88, which directs state agencies to reduce energy use by at least 20% by April 1, 2020.

Brownfield Cleanup and Superfund Sites

A brownfield site is a property for which redevelopment or reuse may be complicated by the presence or potential presence of a contaminant, such as a hazardous waste and/or petroleum. The New York State Brownfield Cleanup Program (BCP) is a voluntary program. The goal is to enhance private-sector cleanups of brownfields while reducing development pressures on land not previously developed or contaminated.

NYSDOH works closely with DEC to ensure BCP remedial activities are properly implemented and protective of public health. In 2014, the Departments were engaged in 235 BCP sites in various stages of site investigation, cleanup and management. NYSDOH advised DEC on whether contaminants represented a significant threat to human health at 48 sites; confirmed that over 50 interim and final site cleanup plans included all appropriate actions to abate, control, and monitor existing or potential health hazards; and determined appropriate public health actions were implemented to abate existing or potential health hazards at 45 sites. NYSDOH also works closely with DEC to perform similar activities for inactive hazardous waste (Superfund) sites, and has prepared Public Health Assessments and Public Health Consultations for a number of them.

Ensuring Good Health for All

Health disparities are differences in health among groups of people. These differences can include: how frequently a disease affects a group; how many people get sick; or how often the disease causes death.

Some people experience poor health due to life circumstances, discrimination or exclusion. Among them: racial and ethnic populations, people with disabilities, individuals of lower socioeconomic classes, residents of rural areas, and women, children, and senior citizens.

Eliminating Disparities

Addressing health disparities and improving health outcomes for racial, ethnic and other underserved populations are key priorities for NYSDOH. One way the Department plans to achieve that is with the Population Health Improvement Program (PHIP), which in 2014 selected 10 regional contractors to provide a neutral forum for discussing practices and strategies that promote population health and reduce health care disparities. The PHIP will also help support and advance Prevention Agenda 2013-2017 and the State Health Innovation Plan (SHIP). Awards were announced December 5, 2014. PHIP contractors will work in one of several regions that together serve the entire state.

Promoting Health Equity

Eliminating disparities and improving equity relies on research, training, community health informatics and targeted interventions. Together with various partners, the Department is gathering data to improve interventions, identify hidden high disparity populations and develop curriculum materials that enable health care providers to work with culturally diverse groups. NYSDOH is also working to grow a more diverse health care workforce by implementing a mentorship program, the Mentorship in Medicine and Other Health Professions program.

The NYSDOH also supports high disparity communities to identify their priorities and implement health interventions and programs to enable them to address identified needs and improve health outcomes. For instance, the Department funded a Drop-In Center for the Saint Regis Mohawk Tribe, where trained life coaches work with individuals in recovery to overcome addiction. Since its opening in June, the center has had about 500 visits a month. The Department also developed a LGBT Cultural Competency Component to help create a more sensitive and competent health care work force. And in November, NYSDOH established the New York State West African Health Collaborative to discuss the impact of Ebola on New York State and West African communities in New York City. At the same time, the Department worked with New York State Division of Human Rights and New York State Department of Labor to develop a brochure about discrimination and Ebola.



Reforming the Health Care System

The health care system today faces challenges and opportunities in the delivery of high quality health care while addressing increasing costs, and – as with any change – transformation is no easy task. The passage of the Patient Protection and Affordable Care Act (ACA) in 2010 included provisions designed to reduce costs and test, implement, and support delivery system reform. NYSDOH views this as an unprecedented opportunity to reform health care delivery in New York, and to improve the quality of health care while reining in high costs.

State Health Innovation Plan

The overarching initiative behind these reform efforts is the State Health Innovation Plan (SHIP), a carefully crafted plan to overhaul the health care system and help New York achieve the Triple Aim – better individual care, improved population health and lower costs. The SHIP is anchored by five pillars: to improve access to health care for all New Yorkers, regardless of financial, cultural, geographic and operational barriers; to integrate care, so that patient needs are addressed seamlessly; to make the cost and quality of care transparent, so New Yorkers are better equipped to make health care decisions; to pay for health care according to value, not volume; and to promote population health.

Achieving each of these pillars will require matching the skills of the workforce to the needs of the communities; the application of technologies that support clinical integration, greater transparency,

new payment models and continued innovation; and the use of performance measurement and evaluation tools to ensure we are meeting our goals.

The SHIP involves the creation of an Advanced Primary Care (APC) model that integrates behavioral



New York State's health goals target the Triple Aim – better individual care, improved population health and reduced costs.

health care with primary care. These new models of care will measure processes and outcomes such as prevention, the effective management of chronic disease and the coordination of care across a range of providers. Under the APC, patients will receive assistance in actively managing and improving their health.

In December 2014, the Department was awarded a four-year, \$100 million State Innovations Model (SIM) Testing grant by the Centers for Medicare and Medicaid Innovation. The grant will support the SHIP and provide funding to primary care practices throughout the state as they transition to this new primary care model. Over the course of 48 months, the funds will be used to develop new care models; evaluate and promote a health care workforce consistent with new care delivery models; conduct an evaluation of the initiative; and support efforts to better integrate behavioral and population health as integral components of the primary care model.

Care Management for All

As part of the state's Medicaid reforms, the Department is striving to have virtually all Medicaid beneficiaries enrolled in managed care by April 2018, an effort known as *Care Management for All*. Enrollment of the state's 6.1 million Medicaid recipients grew in 2014, where now, more than two-thirds of eligible people are enrolled.

Many benefits once outside of managed care were brought into the fold in 2014, but the main

focus was the transition of the nursing home population and behavioral health services to managed care. The final phase of the behavioral health transition will integrate all behavioral health and physical health services under risk-bearing qualified mainstream managed care plans and Health and Recovery Plans (HARPs), which were created for people with significant behavioral health issues. Over the next three years, the majority of the remaining benefits and patient populations will transition into managed care.

As part of the *Care Management for All* initiative, NYSDOH expanded Managed Long Term Care (MLTC) throughout the state during 2014. The addition of three new operational plans and eight plan service areas demonstrates that progress is continuing. Total enrollment in MLTC through the year grew from 124,757 in January to 139,204 by December. The Department will continue to transition the remaining counties to MLTC.

In a partnership with CMS, the agency also developed the Fully Integrated Dual Advantage (FIDA) demonstration. FIDA was created to integrate and manage care for dually-eligible Medicare and Medicaid consumers. The FIDA Demonstration is targeting New York City and Nassau County, and enrollment will begin in 2015.

Delivery System Reform Incentives Payment Program

In April 2014, the Department received an \$8 billion waiver from federal savings generated by Medicaid reforms initiated in 2011. Most of those funds – \$6.42 billion – will go toward implementing the Delivery System Reform Incentives Payment program, or DSRIP. DSRIP is designed to restructure the health care delivery system to lower the cost of Medicaid by improving the delivery, access and quality of care, and reducing avoidable hospital use by 25% over five years.

With the waiver in place, NYSDOH began working to design and launch DSRIP. Those efforts led to the creation of 25 Performing Provider Systems (PPSs) – a group of health providers such as hospitals, community health organizations and physician practices, which have partnered with the Department to implement DSRIP. The Department provided the resources, funding (federal awards), and technical support for PPSs to understand the scope and needs of the Medicaid community they serve. With the agency's guidance, the PPSs developed comprehensive Project Plans in December 2014 that outlined their transformation plans. And with the Department's oversight, the implementation phase will begin in May 2015.



Governor Cuomo announced the creation of the \$1.2 billion Capital Restructuring Financing Program, which will support capital projects that help strengthen and promote access to essential health services. Projects will improve infrastructure, promote integrated health systems and expand primary care capacity.

During 2014, the Department also distributed the Interim Access Assurance Fund (IAAF), which is part of the waiver. The funds were used to maintain and expand services at large public hospitals. For safety net hospitals, the funds were distributed to ensure full participation in the DSRIP program without disruption of services.

With the support of Governor Cuomo, NYSDOH established a \$1.2 billion Capital Restructuring Financing Program. These funds will pay for construction projects that promote access to essential health services and enhance the quality, financial viability and efficiency of the health care system. Two pools of capital funding will be available – one for projects aligned with DSRIP, and one for projects by providers not qualified or participating in DSRIP. A competitive Request for Applications was released in fall 2014. Eligible providers include general hospitals, residential health care facilities, diagnostic and treatment centers, assisted living providers, primary care providers, and home care providers.

Medicaid’s Global Spending Cap

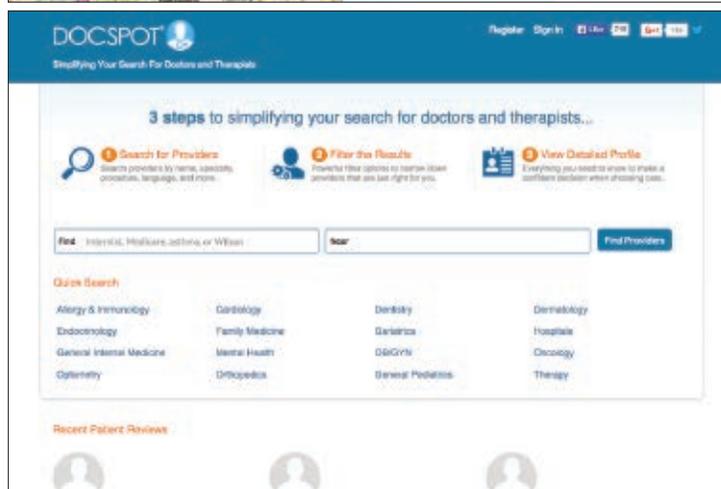
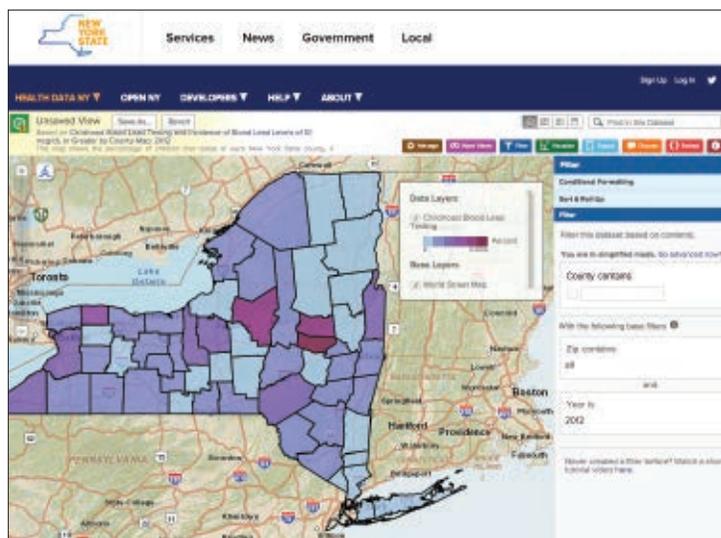
A key part of New York’s Medicaid reforms is the Global Medicaid Spending Cap, which was implemented in April 2011 at the request of the Medicaid Redesign Team. The Global Medicaid Spending Cap is consistent with the Governor’s goal to limit total Medicaid spending growth to no more than the ten-year average rate for the long-term medical component of the Consumer Price Index. The Global Cap, which applies to the state share of Medicaid spending, has fundamentally changed how state officials and stakeholders view the program. Every policy change must now be viewed in terms of its impact on Medicaid resources. If spending appears to be on the path to exceed the cap, the Commissioner of Health has “super powers” to change reimbursement rates and implement utilization controls to bring spending back in line. In 2014, the state was under the Global Cap again, having met this goal for three consecutive years while expanding health coverage to the state’s neediest populations.

Health Information Technology

A key component of New York’s health systems reform is technology. As the Department forges ahead with its plans to overhaul health care, health information technology continues to evolve and expand on several fronts.

Health Data NY

In its second full year, Health Data NY released 71 new datasets and more than 107 new charts



Top: Throughout 2014, Health Data NY continued releasing new data sets, charts and maps. Bottom: DocSpot, the winner of the first Health Innovation Challenge, weaves together data from multiple sources, including Health Data NY, to help users find providers based on information such as patient rating, procedure volume, patient survival rate and case severity.

and maps. The breadth of data available continues to expand, and includes data from environmental health; facilities and services; and community health and chronic disease. New data also address quality, safety, costs and vital statistics.

To demonstrate the potential in all this data, the Department hosted its first-ever Health Innovation Challenge in 2014, with support from the NYS Health Foundation and the Robert Wood Johnson Foundation. The goal of the event was to create technology-driven solutions that enable consumers, employers, public health experts, communities and purchasers to explore ways to improve health and health care, while lowering costs. The event attracted more than 50 multi-disciplinary teams from around the world, and 18 submitted final applications. The winning applications were showcased during an award ceremony, featuring speakers on the innovative uses of health data and the benefits of cost and price transparency.

Statewide Health Information Network of New York

More providers are embracing the use of electronic health records (EHRs). According to the CDC, 39% of providers in NYS were using EHRs in 2013. To link them, the Department has created eight Qualified Entities (QEs) (formerly known as regional health information organizations or RHIOs), so that patient records are available across providers and health care settings through secure portals. The Statewide Health Information Network of New York (SHIN-NY) is the technical infrastructure that will connect the eight QEs. Once available, the SHIN-NY will allow QEs to exchange data to ensure that a health care provider can access a patient's medical records and that all New Yorkers can receive appropriate care anywhere in the state. This service is expected to be available during the summer of 2015.

All Payer Database

Progress on the All Payer Database (APD) continued in 2014, as the Department worked toward creating a central repository for health care claims data received from major public and private insurance payers. Data will come from insurance carriers, health plans, third-party administrators, pharmacy benefit managers, as well as Medicaid and Medicare. The APD will also house the valuable data already being collected by the Department, including the Statewide Planning and Research Cooperative System (SPARCS), which collects clinical and demographic data on all hospital discharges, emergency department visits, ambulatory care visits and hospital outpatient service visits.

Eventually, the APD will house other databases, including clinical and public health data sources, such as lab test results; pharmacy and clinical data from electronic health records; and data contained in public health registries, such as the New York State Cancer Registry.

When fully implemented and operational, the APD will provide comprehensive information about how and where health care dollars are being spent, and help answer important questions for consumers, business owners and policy makers. It will collect and integrate information to help the state understand the evolving needs of the health

care system. More specifically, it will collect data from multiple payers and on multiple categories of service, with data on costs, pricing and payments related to care.

Health IT Workgroup

Taken together, the APD, the SHIN-NY and SPARCS are helping NYSDOH forge a new path to a more transparent health care system. To assess progress, the Transparency, Evaluation, and Health Information Technology (HIT) Workgroup met in September to evaluate New York State's HIT infrastructure. The workgroup is composed of a diverse group of consumers, payers, and providers and is responsible for evaluating the APD, the SHIN-NY and SPARCS. Among its many other tasks is the development of a scorecard to assess New York's progress toward achieving the Triple Aim; the adoption of recommendations toward a comprehensive health claims; a clinical database to improve quality of care, efficiency and cost of care, and patient satisfaction; and implementation of a plan that uses new IT to support other health initiatives and provide incentives to adopt these efforts.

Given the evolving nature of health information technologies, much work is yet to be done. The workgroup will continue to meet throughout 2015 and beyond to address outstanding issues and questions including policy issues related to transparency and evaluation. The workgroup issued an interim report in December 2014, which can be found [here](#). A final report will be issued by December 2015.





Enhancing Access to Health Care

A major part of the Department's responsibilities is to make sure New Yorkers have access to health care services, whether it's a new medication, health insurance, or the ability to make an appointment with a health care provider. Several initiatives in 2014 demonstrated the Department's commitment to ensuring that all New Yorkers are able to get the care they need.

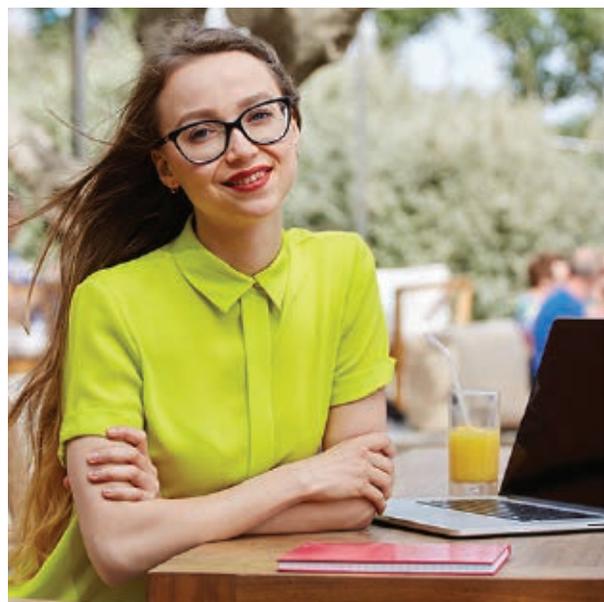
Medical Marijuana

The use of marijuana for medical purposes has gained traction across the country in recent years. In 2014, New York became the 23rd state to adopt a medical marijuana program. This new law is an important step. It includes provisions to ensure medical marijuana is reserved only for patients with serious conditions and dispensed in a manner that protects public health and safety, while looking at efficacy. The Department has since been working to implement this program within the required timeframe while balancing access to treatment against public health and safety. In December 2014, proposed regulations were released.

NY State of Health

As the state's official health plan Marketplace, NY State of Health has successfully increased the affordability and accessibility of health insurance coverage in New York. By the end of the second open enrollment period, over 2.1 million people were enrolled in coverage through the Marketplace, more than double the number of enrollees during

the first year. Eighty-eight percent of those who enrolled report that they were uninsured at the time they enrolled. New Yorkers who have enrolled



in coverage through the Marketplace have overwhelmingly reported being satisfied with their health insurance (92%) and are using their coverage to access care (84%).

Premium rates for individuals and families continue to be more than 50% lower than comparable coverage available before the establishment of the NY State of Health. The majority of enrollees – three-quarters – were eligible for financial assistance, averaging over \$200 per month to help further reduce the cost of premiums for plans purchased through the Marketplace.

NY State of Health allows New Yorkers to apply for coverage online, by phone or in-person in communities throughout the state. Over 2.4 million people used a new tool introduced in 2014 to anonymously shop and compare health plans, and get a personalized premium quote before starting their application.

In November 2014, NY State of Health debuted a Spanish version of its website, including an online application for individuals. To reach New York's diverse communities, the Marketplace expanded the availability of key educational and outreach materials to 17 languages in addition to English. The NY State of Health Customer Service Center assisted consumers in over 90 different languages.

NY State of Health was the recipient of the 2014 Prize for Public Service Innovation from the Citizens Budget Commission.

Health Care System

Changing the way we do business is essential to transforming the state's health care delivery system. That means making changes to procedures involved in providing health care. In 2014, the NYSDOH continued its efforts to improve the processes behind the scenes.

Speeding Up Certificate of Need Approvals

The ability to expand, alter and adjust the state's health care facilities requires service providers to complete a certificate of need. To reduce the burden of these applications, the Department is continuing to develop the New York State Electronic Certificate of Need (NYSE-CON), the electronic version of the application process. Now in its fourth year, NYSE-CON has allowed the Department to reduce the processing time for CON applications by applying process and quality improvement strategies to enhance operations. In 2014, the median processing time for applications was 20% faster than it was in the previous year, and 63% faster than in 2011, the first year NYSE-CON was in operation.

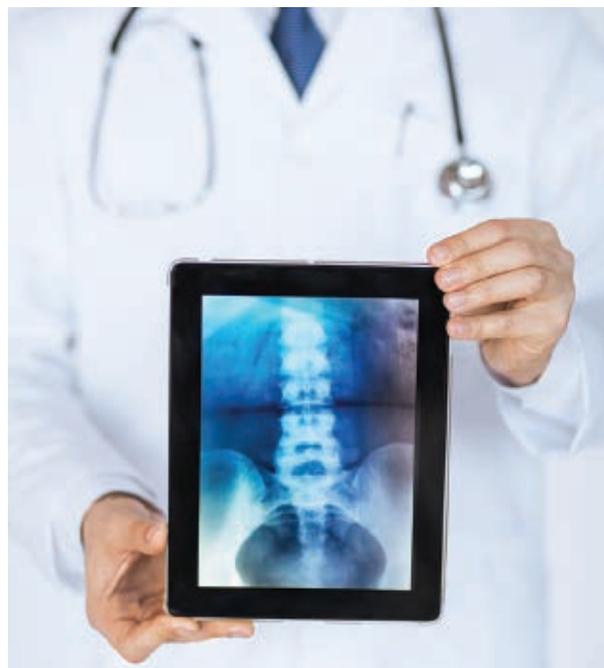


Improving Access to Care in the North Country

New Yorkers in the remote northern parts of the state often have difficulties accessing health care. To address their needs, the Department convened the North Country Health Systems Redesign Commission (NCHSRC). The goal was to create an effective, integrated health care delivery system that provides preventive, medical, behavioral and long-term care to all communities throughout New York's North Country. The final report, *Toward an Integrated Rural Health System: Building Capacity and Promoting Value in the North Country*, was issued in April 2014 and can be found [here](#).

Embracing Telehealth

Under a new law signed by Governor Cuomo in December, commercial insurers and the Medicaid program can reimburse for health care services



normally covered in person, but delivered via telehealth. The Department is working on regulations to support the new law by providing guidelines for Medicaid coverage, addressing any potential for fraud, abuse and overutilization, and protecting patient privacy and confidentiality.

Health Care Workforce

A vibrant workforce is at the core of any industry, and the health care system is no exception. Here in New York, the Department strives to ensure that we have the health care workers we need to do the job. And in 2014, NYSDOH took steps to make sure our health care system can attend to the health and health care needs of all New Yorkers.

Building Our Physician Workforce

To address workforce shortages in underserved areas, the Department provides financial incentives to attract physicians to work in those communities. Begun in 2009, Doctors Across New York (DANY) has two programs. The DANY Loan Repayment Program provides up to \$150,000 toward the repayment of educational debt on behalf of physicians who agree to serve for five years in New York's medically underserved areas. The Department approved 19 additional slots in late 2014, bringing the total number of participating physicians since the program's inception to 93 physicians.

The DANY Physician Practice Support Program provides up to \$100,000 to physicians who agree to practice in underserved areas for two years. Awards are available to individual physicians as well as hospitals and other health care facilities to recruit or retain physicians in the community. In 2014, additional funding in the budget allowed the Department to issue an additional round of awards. The 16 new awards brought the total number of physicians in this program to 162.

More Flexibility for Nurse Practitioners

Nurse practitioners (NPs) are critical to New York's evolving health care system because they provide quality health care services in a variety of clinical settings. The 2014-15 enacted budget included



the Governor's proposal to modernize the practice of NPs and allow those with more than 3,600 hours of work experience to forego written practice agreements and practice protocols with physicians, as long as they document collaborative relationships with physicians or hospitals. Modernizing the practice of NPs in this way will enhance primary care services, especially in rural or underserved urban areas. Information on their practice will be collected from NPs as part of their triennial registration and will be used by the Department to gauge the impact NPs have on health care.

Training More Certified Nurse Assistants

In long-term care facilities, Certified Nurse Assistants (CNA) are known as the "heavy lifters," staff members who help residents with their daily care needs from bathing and dressing to feeding and socializing. However, the number of CNAs in the field fluctuates. That's why the New York State Veterans Homes at Batavia and Oxford have each partnered with the local county BOCES to train people with little or no health care experience to become CNAs. Successful applicants received financial assistance from the Home and did 130 hours of training provided by BOCES. The retention rate for the 2014 class was 75% at the Batavia Veterans Home and 59% at Oxford. With more CNAs in the market, the training also benefited the community at large.



Improving Quality of Care

The Institute of Medicine defines quality as “the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.” Here in New York, achieving those outcomes is an ongoing effort, one the Department embraces on many levels. In 2014, NYSDOH once again demonstrated its commitment to quality on several fronts.

Expanding the Way We Measure Quality

Vast changes brought on by the Affordable Care Act and the Medicaid Redesign Team have required the Department to devise new ways to measure the quality of the state’s Medicaid and Child Health Plus programs. Together, these programs serve more than seven million people in New York State. The new measurements were expanded to include new types of providers, health care settings and patient populations. These measures dovetail with the Department’s Medicaid reforms, which promise to improve access, care quality and cost effectiveness for the state’s poorest and most vulnerable residents.

In 2014, the Department also implemented a core set of national standardized quality measures and added new measures to evaluate the quality of behavioral and maternal health care. Both projects show that initiatives in the Department are making an impact. Participating clinics were able to improve non-adherence to antipsychotics for people with schizophrenia by almost 9%. Among 97 of the state’s birthing hospitals, the measures showed a 92% decrease in scheduled deliveries with no medical reason between 36 and 39 weeks gestation. Enhancements in quality measures

will enable the Department to better evaluate its ongoing improvement initiatives, including the Delivery System Reform Incentive Payment program and the Prevention Agenda.

Rewarding Nursing Homes for Quality

In addition, NYSDOH launched the Nursing Home Quality Incentive to improve the quality of care for residents in the state’s Medicaid-certified nursing facilities. Nursing homes are awarded points for meeting quality, compliance, and efficiency goals. Any deficiencies cited during the health inspection survey process are also incorporated into the results. The points are tallied to give each facility an overall score and ranking. Top scoring facilities were awarded a total of \$50 million. Of the 596 eligible nursing homes, 341 received part of the award.

Improving Primary Care Training

For the last three years, the Department has been running the Hospital Medical Home (HMH) Demonstration Pilot, which ended on December 31. NYSDOH received \$250 million from a Medicaid waiver to transform primary care ambulatory training sites into patient centered medical homes (PCMH)

and improve the training of our next generation of primary care doctors. As a result, 156 training sites at over 60 hospitals became recognized as National Committee for Quality Assurance PCMHs, and successfully implemented a range of projects to improve the integration of health care for patients. Using standardized metrics of ambulatory performance, the project demonstrated significant improvements in prevention and chronic disease management, as well as inpatient projects on patient safety. In addition to enhancing patient care and physician training, the residency programs showed meaningful improvement in patient continuity.



Improving Primary Care in the Adirondacks

Residents in the Adirondacks have been participating in an experimental model of health care since 2010. The pilot, known as the Adirondack Medical Home Demonstration, serves nearly 100,000 patients in 40 practices in a six-county region and is supported by nine insurers including Medicare and Medicaid. It uses a patient-centered medical home (PCMH) model of care that emphasizes prevention and primary care. Although originally scheduled to end in December 2014, the program has been so successful that it was extended another two years. The initiative is also exploring the use of value-based payments to help promote the movement towards improved care at lower cost. Along with Medicare and several commercial payers, Medicaid provides financial support to PCMH-recognized providers in the Adirondacks to achieve program goals of improved quality and care coordination, decreased emergency and hospital utilization, and increased primary care provider capacity in the region.

Combating Sepsis

Sepsis is a leading killer in hospitals and causes as many as 8,000 deaths in New York hospitals each year. That's why the state enacted Rory's Regulations in honor of a 12-year-old who died tragically of undetected sepsis in 2012. The regulations require hospitals to have in place evidence-based protocols

for the early recognition and treatment of patients with severe sepsis and septic shock that are based on generally accepted standards of care. Hospitals must also report severe sepsis and septic shock cases to the Department of Health.

NYSDOH partnered with the Island Peer Review Organization (IPRO) to create a Severe Sepsis/Septic Shock Data Collection Portal that allows for the collection of clinical data on sepsis in these patients. Patient-specific demographics, laboratory results, treatments, hospital protocol adherence and comorbidities are collected on each patient identified as having severe sepsis or septic shock. Data collection began April 1, 2014. Cases were collected by each hospital and reported to the Department at the end of the quarter. Cases have been reported for the last three quarters of 2014 and will continue into 2015.

The reports detail the characteristics of the patients and compare the hospital to statewide reporting patterns. The information helps hospital staff identify characteristics of vulnerable patients, trends in the hospital and target areas for improvement. In addition, it makes hospitals accountable for the quality of their sepsis care.

Profiling New York's Hospitals

In September, the Department launched the Hospitals section of the NYS Health Profiles, as the first redesigned component of this online tool. The new site utilizes modern web technologies and provides improved visuals and usability. More than 69,000 visitors took advantage of its enhanced capability to view, bookmark, search, and compare hospitals on quality measure groups, such as 30-day readmission rates, deaths 30 days after discharge, deaths from cardiac surgery, emergency department timeliness, hospital-acquired infections, patient safety, patient satisfaction, and appropriate care measures. Visit Hospital Profiles [here](#).



The state's hospitals became the first enhanced component of the NYS Health Profiles website, which provides information on quality of care, maternity, surgical procedures, and inspections.

Neurodegenerative Disease Centers of Excellence

Huntington's disease is a fatal genetic disorder that gradually destroys nerve cells in the brain. It has no cure and typically strikes in adulthood. To improve the treatment of people suffering from Huntington's, the Governor announced \$5 million in funding to develop Neurodegenerative Centers of Excellence. The initiative will include several nursing homes that specialize in Huntington's disease and other neurodegenerative diseases. The Department has developed an interdisciplinary advisory group to help ensure that comprehensive services are available to patients on the full continuum of the disease, including those who live at home, as well as those in community-based and residential settings.

Enhancing Pediatric Care

Thanks to recommendations by the Emergency Medical Services for Children Committee, an advisory body made up of experts in pediatric medical care, children in New York's hospitals began receiving better care. Revisions to the state's hospital code went into effect in 2014 and now require that all hospitals deliver proper care to pediatric patients, with appropriately trained staff, using equipment sized to meet the needs of this young population. The amendments also include quality improvement activities, and policies and procedures that center around the pediatric patient. The goal is to ensure that hospitals treating children are qualified and prepared to treat, and if not, immediately transfer patients to an appropriate facility. Changes were also made to regulations governing Pediatric Intensive Care Units (PICUs). The revised regulations and subsequent actions ensure that New York's youngest patients are receiving the best possible care in hospitals.

Children with physical and cognitive disabilities, as well as developmental delays, receive an expanded level of care at Helen Hayes Hospital. The Outpatient Neurological Rehabilitation Center now has a comprehensive sensory gym in addition to its existing pediatric room. The gym includes equipment designed to care for children two weeks through 16 years of age with diagnoses of stroke, amputation, spinal cord injury, concussion and other disorders. In addition, functional electrical stimulation is now available for children and the hospital's Prosthetic Orthotic Center offers cranial remolding helmets for infants to correct plagiocephaly. In 2014, the Hospital's Outpatient Neurological Rehabilitation Program worked with several partners and sponsors, including the Helen Hayes Hospital Foundation, to provide an accessible playground for their pediatric patients.



Special playground equipment at Helen Hayes Hospital in Haverstraw accommodate children with disabilities.

The playground features traditional and adapted equipment modified to accommodate children with disabilities, including wide spaces and pathways for wheelchair access, special seating and safety rubber surfaces. The new playground, which opened in June, was funded with a grant from the Kurz Family Foundation of Piermont, NY, and is located on the hospital's campus in West Haverstraw.

Trauma Center Verification

Adopting the American College of Surgeons Committee on Trauma (ACS-COT) verification process has strengthened New York's vast trauma system, encouraging better performance and patient care. The ACS-COT verification replaces the NYS designation that was previously used to determine whether a hospital had met standards appropriate to trauma centers. The new ACS-COT verification process has strengthened and updated existing standards. Verification indicates a commitment to training staff, upgrading ancillary services and making ongoing improvements. It also requires trauma centers to use their data as a tool to review and improve their care and submit data to a statewide registry. All current trauma centers have had a visit from ACS and in 2014, three of the centers were successfully verified. The remaining centers are on target for scheduling their verification surveys by early 2016.

The strengthening of New York State's Trauma System will not only improve care provided to trauma patients, but increase access to trauma care. In the process, the Department received applications from 15 additional hospitals seeking to add trauma centers. The Department has also created a pediatric trauma system that contains guidelines for the transfer of pediatric patients and collaboration with the EMS system to improve emergency transportation to appropriate level trauma centers.



Managing Global Health Emergencies – and More

Good planning and extensive preparation provide the foundation for an effective response and recovery to any emergency. Public health plays a crucial role when an emergency situation demands an efficient, collaborative, and effective response effort. The Department works closely with local health departments, health care facilities and associations, and other key partners to ensure that every county and regulated entity is prepared. Since 1999, the Department has strategically used Public Health Emergency Preparedness and Hospital Preparedness funding to build a comprehensive Health Emergency Preparedness Program in New York State. Collaboration at all levels and among all partners has been the key to success. The Department takes an all-hazards approach. In 2014, the NYSDOH supported seven State Emergency Operations Center activations.

Ebola Virus

What began with the death of a two-year-old boy in Guinea in December 2013 quickly spiraled out of control into an international health crisis by the summer of 2014. By the time the World Health Organization declared Ebola a public health emergency of international concern, the Department of Health had already begun laying the groundwork for an effective response in New York. NYSDOH quickly went to work with its partners to begin preparing the health care system for diagnosing and treating a patient with Ebola. It increased its stockpile of personal protective equipment for health care workers, issued expert advice on personal protection, diagnosis, treatment, laboratory testing, waste disposal, and monitoring of patient

contacts, conducted regional and statewide conference calls and meetings with public health and health care providers, and staged drills to assess whether hospitals were truly prepared for the rigors of managing a patient with Ebola. The Department's strong working relationship with hospitals across the state became the basis for ensuring preparedness, which involved creating space to identify, triage and isolate suspect patients, and establishing designated hospitals.

NYSDOH's swift reaction was a testament to its long history of responding to emergencies, be they communicable diseases, terrorist attacks or natural disasters. It also showcases the agency's ability to collaborate with local health departments, other agencies, professional health care organizations

and an array of other stakeholders. The response to Ebola was unlike any other recent public health crisis, prompting then acting health commissioner Dr. Howard A. Zucker to issue two Commissioner's Health Care Orders.

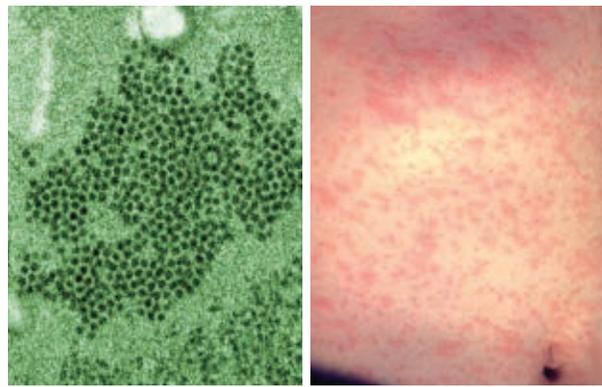
One order codified recommendations from the Centers for Disease Control and Prevention (CDC) that regulated all health care settings. It spelled out detailed protocols for the identification, isolation and evaluation of travelers from countries affected by Ebola. And it specified requirements for isolation and treatment rooms, including safe lab testing, staff training, Personal Protective Equipment usage and waste management. To ensure that all health care facilities met these orders and were fully prepared to handle a suspect patient, the Department staff visited every hospital and regulated clinic in the state. The other order provided directions on the management of travelers from countries affected by Ebola at John F. Kennedy International Airport, which was one of the five airports nationally where travelers coming from Sierra Leone, Guinea, and Liberia could enter.

Ultimately, New York treated only one patient in 2014. But the success of the state's preparation was evident in that single case, which did not result in any secondary cases among health care workers or others in the community. The Department also worked with local health departments to help oversee the identification and monitoring of hundreds of other travelers returning from the affected region, and has continued to stay alert to possible global threats, such as MERS-CoV and avian influenza.

EV-D68 and Measles

Ebola may have been the Department's biggest public health emergency in 2014, but it was not the only one. During the fall, the Department activated enhanced surveillance efforts as children across the state fell ill with EV-D68, a type of enterovirus that was causing severe illness. In 2014, the Wadsworth Center Virology Laboratory tested 955 specimens, of which 264 were positive for EV-D68. The vast majority were children, many of whom required hospitalization. NYSDOH responded to EV-D68 with many activities, including attending clinician outreach and communication activity calls, conference calls, meetings, and webinars. The Department also developed guidance documents and worked with the CDC to develop two health advisories that provided guidance.

NYSDOH also encountered five cases of measles, and together with local health departments, investigated more than 40 suspect cases that were subsequently ruled out. In light of outbreaks in other states – including the large one at Disneyland in California – the Department has strived to



Left: Wadsworth Center's Virology Laboratory tested 955 specimens of EV-D68, an enterovirus that sickened children across New York in the fall of 2014. Of those, 264 were positive. Right: Measles made a rare appearance in New York when five children were stricken with the disease, which produces this characteristic red rash. Preceding page: Ebola virus.

ensure that practitioners were fully informed about appropriate diagnosis and reporting as well as the use of vaccines to prevent disease.

Coping with Crude Oil Spills

Being adequately prepared was the basis for the Department's participation in the Inter-Agency Crude Oil Task Force, which was formed by Executive Order. The task force, which also includes the Division of Homeland Security and Emergency Services, working with the Department of Environmental Conservation, the Department of Transportation, and the U.S. Environmental Protection Agency, has strengthened the state's oversight of shipments of petroleum products. The task force continues to develop strategies for responding to potential fires or releases of crude oil transported along New York State's entire rail corridor. Part of those efforts included examining New York's emergency plume modeling capabilities and evaluating available plume modeling tools. As part of this examination, the workgroup also identified available staff resources, and determined outreach and awareness mechanisms for planning by private and public partners. The workgroup produced the document "Report on New York State's Plume Modeling Capabilities," which was submitted to the Commissioner of the Division of Homeland Security and Emergency Services in December.





Doing Research That Makes a Difference

Promoting scientific curiosity and maintaining a public health lab is vital to the Department's mission of protecting the health of all New Yorkers. Research that takes place throughout the Department, in our health care facilities and in Wadsworth Center, the state's premier research lab, plays a pivotal role in bringing new health technologies to light.

On-Site Studies to Advance Health Care

In addition to overseeing public health, the Department of Health directs and oversees patient care and research at five health care facilities: Helen Hayes Hospital, and Veterans' Homes at Oxford, St. Albans, Batavia and Montrose. These facilities have 1,025 beds combined and provide numerous services, including specialty rehabilitation, long term care and skilled nursing care. They are also the recipients of millions of dollars of grant money for ongoing research. In 2014, the facilities embarked on several research and workforce expansion efforts that promise to improve the care delivered in these facilities and elsewhere in the nation.

Personalized Medicine Using DNA

In an effort to reduce the use of medications, prevent adverse drug events and improve clinical outcomes, staff at the New York State Veterans Home at St. Albans in Queens County launched a state-of-the-art personalized medicine program

for its elderly residents in February 2014. Using DNA testing, clinical pharmacist support and patented software, the staff was able to improve drug sensitivity in certain patients who take multiple therapies, including psychotropic medications. The Home has also reduced the number of adverse events and, in some cases, even significantly reduced the number of medications prescribed to individual residents. In 2015, the program will be evaluated, modified and shared as a model for other long-term care facilities.

A Holistic Approach to Dementia

In February, the nursing staff at the New York State Veterans Home at Montrose in upper Westchester County adopted a collaborative and holistic approach to caring for residents with dementia and Alzheimer's disease. The facility houses a Snoezelen therapy room, which uses aromatherapy, a panoramic optical therapy projector, a musical memory development activity center, and other soothing techniques and equipment to calm the



Left: A Snoezelen room at the New York State Veterans Home at Montrose in Westchester County eases anxiety for residents with dementia using multisensory stimulation. Right: Residents at the New York State Veterans Home at Oxford are participating in a study that examines the effects of group singing on people with dementia. Preceding page: Wadsworth scientists at work in the lab.

residents. Participating residents appear less fearful, less stressed and more relaxed, which in turn has enhanced their quality of life.

The Power of Singing

In January, researchers at Temple University and the New York State Veterans Home at Oxford began collaborating on a randomized controlled study to examine the effects of group singing on quality of life and affect in people with dementia. The study findings will add to the research on non-pharmacological activities in dementia care and contribute to improving the quality of care for people with dementia in long term care settings.

Better Medical Care in Nursing Homes

The New York State Veterans Home at Batavia began participating in the Education, Training, and Technical Assistance (ETTA) initiative in April. As part of the program, the staff developed and disseminated guidelines for the credentials, roles and responsibilities of nursing home medical directors and attending medical practitioners. The project will provide the education, training and technical assistance to implement the guidelines. It will also do an evaluation of the effectiveness of the program and its impact on residents' health, quality of life and health care services utilization and other outcomes and variables.

Preventing Property Loss

Losing personal property is a common event in most long term care facilities. Lost items can lower quality of life as residents wait for new dentures to be fitted, or new hearing aids or glasses to be delivered. These losses can also impose a financial hardship on the resident. Further, investigating and reporting the loss consumes a lot of staff effort, time and money. In November, the Veterans Homes

at Oxford and St. Albans began testing a loss prevention system called Scandent. The system uses radio frequency identification (RFID) to prevent the loss of resident dentures, eyeglasses, hearing aids and other property. The system involves placing "chips" on the objects and RFID readers around the facility. When an object passes near a reader, an alarm, light or email will notify employees that the object has been detected and action is required. Scandent will locate objects before they leave the building or are discarded accidentally as refuse. Results of the evaluation will be shared with other facilities.

Meditation for Rehab

At Helen Hayes Hospital in February 2014, therapeutic recreation specialists, along with a mental health counselor, instituted a daily meditation program for inpatients. Most rehab patients express feelings of anxiety and are understandably concerned about their recovery and whether or not they will be able to regain their independence. While every patient is unique, meditation is one tool that can help people adopt a more positive outlook which helps in a speedier recovery. Many patients report improved sleep, being less anxious and better able to manage pain.

Re-wiring the Brain

Clinicians at Helen Hayes Hospital hosted an educational program in December called "Re-wiring the Brain: Clinical Ways to Train the Brain by Understanding Neuroplasticity, Mirror Therapy and Graded Motor Imagery" that promises to improve care for patients with MS, Parkinson's, head injury or amputation. These advanced techniques can induce cortical reorganization and help facilitate changes in the brain to promote a decrease in pain and an increase in movement of an affected limb.



Left: A stroke patient at Helen Hayes Hospital receives mirror box therapy as part of his recovery. Right: A daily meditation program at Helen Hayes Hospital helped quality of life for rehab patients who often suffer from anxiety and pain.

This cortical reorganization enables the brain to better recognize the involved limb to help facilitate recovery. Generally, a therapist will need to utilize many different techniques to assist a person in becoming more functional. Helen Hayes' therapists are committed to providing the most effective, research-based therapy available to ensure the best outcomes for their patients.

Wadsworth: Science in the Pursuit of Health

The year 2014 marked the 100th anniversary of the Wadsworth Center, the Department's premier public health laboratory. The event was celebrated in October with Harold Varmus, M.D., the Nobel prize-winning director of the National Cancer Institute, as the keynote speaker. Through the years, the lab has remained committed to science in the pursuit of health. It conducts innovative, multi-disciplinary research, using complex diagnostics and novel detection methods. High-tech instrumentation, state of the art laboratory services, and a dynamic

scientific community are vital components of the Wadsworth Center. Building on a century of excellence, Wadsworth merges clinical and environmental testing with fundamental, applied and translational research.

A Robust Scientific Agenda

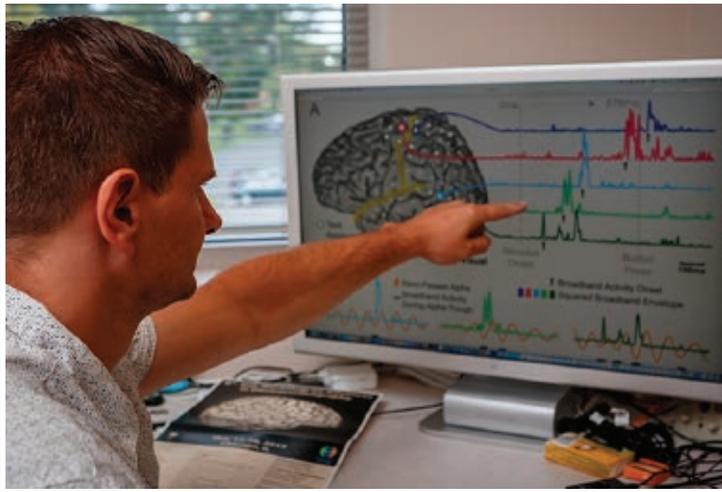
Among the items on the lab's scientific agenda in 2014 was the development of a whole genome sequencing test for the rapid identification of drug- and multi-drug resistant tuberculosis (TB). The lab anticipates implementing this as a clinical test for TB in 2015. The test is expected to significantly shorten the time for diagnosis and consequently the administration of proper therapy.

The lab also developed a rapid prospective next-generation sequencing test for foodborne salmonella outbreak investigations. The test will make it easier to quickly pinpoint the source of a salmonella outbreak. The technology enables public health laboratories such as Wadsworth to rapidly identify strains of salmonella and in turn, quicken responses to potential outbreaks. Wadsworth is one of the first public health labs to have this technology, which places New York on the front lines of detecting foodborne pathogen outbreaks. Scientists at Wadsworth are now applying the technology to follow outbreaks in real time to further test its utility in a public health laboratory.

In support of the state's evolving medical marijuana program, Wadsworth has also set up a medical marijuana testing lab. Staff are developing methods to test for the presence of different cannabinoids and their potency in the final products that will be administered through the medical marijuana program. They are developing methods to detect contaminants such as pesticides and bacteria as well. These methods will be validated and submitted to the Environmental Laboratory Approval program for use in New York.



Dr. Harold Varmus, whose research into the genetic basis of cancer won him the Nobel Prize, spoke at the 100th anniversary of the Wadsworth Center.



Right: Specimens submitted for tuberculosis testing are assessed for growth of the mycobacterium using a fluorescent dye. Top right: Dr. Gerwin Schalk examines neuronal activity across the cortex of the brain. Bottom right: A scientist prepares to screen Salmonella colonies for the presence of mutations that affect virulence.

In addition, Wadsworth received a \$6.5 million award from the National Institutes of Health to establish the National Center for Adaptive Neurotechnologies (NCAN). The center creates software, hardware and protocols that support complex real-time interactions with the central nervous system. The goal of the center is to restore useful function to people disabled by injury or disease. NCAN is developing and validating a robust set of adaptive neurotechnologies, providing training in their use, and disseminating them to the scientific and clinical communities. Several NCAN technologies are already in clinical use in a number of hospitals and clinics.

Advances in Newborn Screening

In 2014, Wadsworth began work on integrating a testing algorithm for cystic fibrosis (CF) into its newborn screening program. Approximately 900 babies are referred for further testing for CF each year, even though only about 40 have the disease.

The new algorithm would reduce the number of referrals to around 100 babies per year. Besides dramatically lowering health care costs, the new test would alleviate anxiety for parents waiting for a diagnosis.

In late 2013, New York became the first state in the country to screen newborns for adrenoleukodystrophy (ALD), an X-linked metabolic disorder, characterized by progressive neurologic deterioration due to demyelination of the cerebral white matter. The test identifies infants with ALD, which is a peroxisomal storage disorder, as well as infants with other similar disorders such as Zellweger Syndrome. ALD affects about one in 20,000 people. If detected early, ALD can be treated with a bone marrow transplant. The first case was identified in 2014, about a week after screening started. Since testing began, 26 children have screened positive for either ALD or another peroxisomal storage disorder and been referred for further testing. Wadsworth staff is currently working on a new



Left: The Wadsworth Center's newborn screening program continues to save lives by detecting congenital diseases at birth. Right: The first class of Wadsworth Center's Masters in Laboratory Science graduated in 2014. They are, from left to right, Erin Hughes, Yan Zhu, Dominick Centurioni, and Jana McGuiness.

test with collaborators from the Kennedy Krieger Institute, Mayo Clinic, and a group in Holland. The test will improve the screening process and decrease costs.

In October, Wadsworth became the second lab in the country to begin screening for Pompe disease, an inherited disorder caused by the buildup of a complex sugar called glycogen in the body's cells. To date, the program has screened approximately 128,000 infants and referred 18 infants for confirmatory testing. The accumulation of glycogen in certain organs and tissues, especially muscles, impairs their ability to function normally. The disease affects about one in 40,000 people. If detected early, Pompe can be treated with enzyme replacement therapy. Untreated, Pompe disease often leads to death from heart failure in the first year of life.

Looking to the Future

The year also saw the first graduating class of the Wadsworth Center's Master of Science in Laboratory Sciences (MLS) program. The Department conferred degrees upon four graduates in August. The MLS Program was established in 2012 and includes 1,200 hours of hands-on, practical experience in the laboratory, including an eight-month capstone research project mentored by public health scientists. The two-year, tuition-free, full-time program is limited to a maximum of five students per year to allow for one-on-one mentoring and rotations in Public Health Science and Environmental Health, Genetics, Infectious Diseases, Laboratory Quality Certification and Translational Medicine. Following in the footsteps of this year's MLS graduates are five students enrolled in the class of 2015 and four students enrolled in the class of 2016.

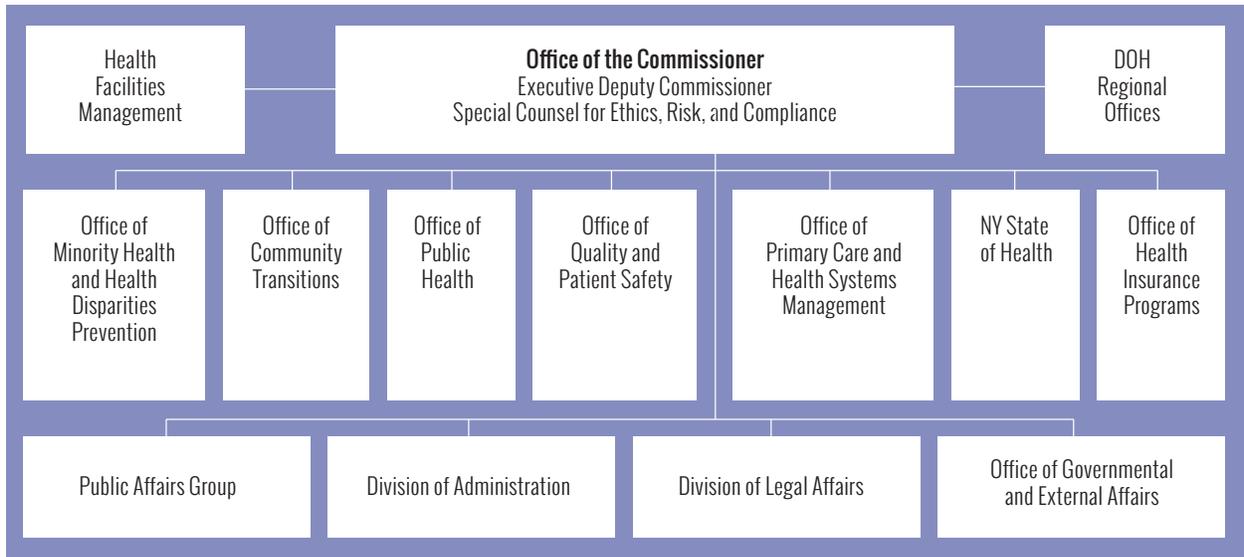


Conclusion

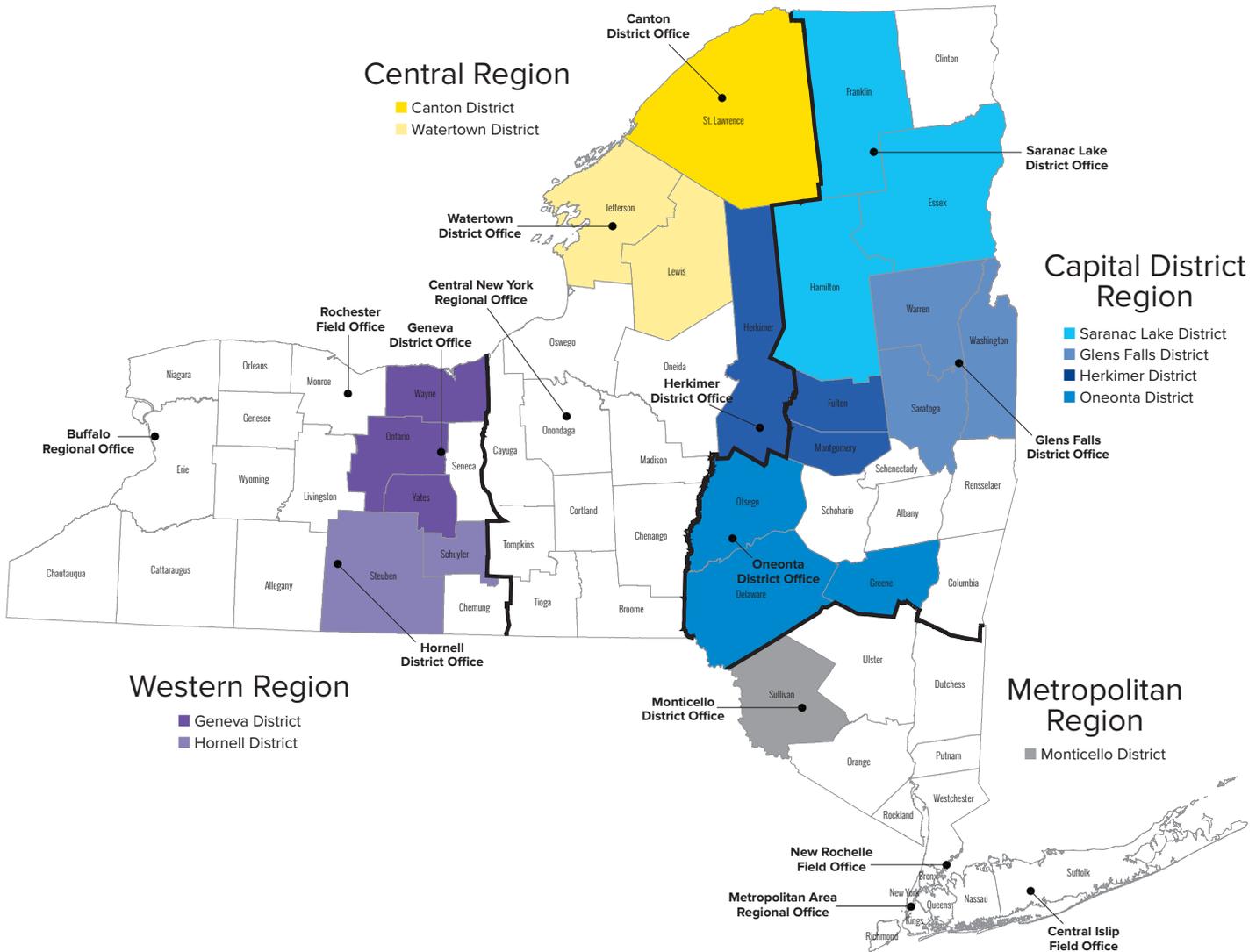
The New York State Department of Health had numerous accomplishments in 2014. By all measures, the Department will continue on this path of improving individual care, promoting population health and reducing costs. The goal is to ensure that all New Yorkers have access to high quality care and

to provide the best possible outcomes in the most efficient manner. The NYSDOH's vision is that New Yorkers will be the healthiest people in the country, living in communities that promote health, protected from health threats and with access to quality, evidence-based, cost-effective health services.

Appendix A: NYSDOH Organizational Chart



Appendix B: NYSDOH Regional, District and Field Offices





Appendix C: Listing of Peer-Reviewed Publications Authored by Members of NYSDOH and Published in 2014

Ahlawat, S., M. De Jesus, K. Khare, et al. *Three-dimensional reconstruction of Murine Peyer's patches from immunostained cryosections*. *Microscopy and Microanalysis*, 2014. **20**(1):p. 198-205.

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