Department of Health

Management of Indoor Air Quality for Individuals With Asthma

Report 2020-S-59 | August 2022

OFFICE OF THE NEW YORK STATE COMPTROLLER
Thomas P. DiNapoli, State Comptroller
Division of State Government Accountability

Audit Highlights

Objective

To determine if the Department of Health (Department) effectively identified poor housing conditions for residents with asthma and worked with Local Health Departments (LHDs) to ensure home visits were prioritized. The audit covered the period from April 2014 to January 2021.

About the Program

Asthma is a significant public health problem in the United States. It is one of this country's most common and costly diseases, which often requires emergency care and hospital admission and is responsible for a high number of missed school and/or work days. According to the Centers for Disease Control and Prevention (CDC), in 2018, asthma accounted for 178,530 hospitalizations and over 1.6 million emergency department visits in the United States. In 2019, asthma accounted for 3,524 deaths. There is no cure for asthma, but it can be managed with treatment and proper prevention of asthma attacks. In New York, it is estimated that 1.4 million adults and 400,000 children have asthma.

The COVID-19 pandemic has had significant impacts on those living with chronic diseases such as asthma. According to the CDC, people with moderate-to-severe or uncontrolled asthma are more likely to be hospitalized from COVID-19. Reducing asthma triggers is one objective of the Department's Healthy Neighborhoods Program (HNP).

The HNP is designed to provide environmental health services to targeted high-risk neighborhoods. These areas sometimes include environmental justice communities and are usually home to at-risk populations, including low-income and minority families, living in homes and neighborhoods with a disproportionate number of residential hazards. The HNP's goals include reducing hospitalizations due to asthma and limiting exposure to indoor air pollutants that are known asthma triggers. To accomplish these goals, the HNP contracts with LHDs to perform in-home visits and assessments to raise awareness of and help families manage asthma in order to reduce asthma-related illness and hospitalizations.

During the period from October 31, 2016 through January 19, 2021, LHDs visited 31,302 households, consisting of 77,353 individuals. Of the total households visited, 5,643 (18%) had at least one individual with asthma.

Key Findings

While the Department, through its contracts with LHDs, has identified poor indoor environmental conditions that impact residents with asthma, it needs to improve its oversight and monitoring of LHDs to ensure that individuals identified with asthma in targeted areas continue to receive appropriate assistance.

- LHD-identified target areas are included in Department-approved contracts, but the Department does not assess whether services are provided in those target areas. This lack of oversight by the Department means it cannot properly determine whether LHDs are using HNP funds to raise asthma awareness and help families to manage asthma in areas specifically chosen because of existing environmental and population risk factors. Further, the Department could not provide 39 of the 106 LHD reports required by the terms of the contracts. Progress reports provide accountability and enable project monitoring; therefore, it is uncertain how effectively the

Department monitored the program and how the Department determined if LHDs were meeting the goals outlined in their contracts.

- The LHDs did not sufficiently perform the required 1-year follow-up visits to households where at least one individual was identified as having asthma during the initial home visit. However, the Department took no action on the lack of LHD compliance even in the years leading up to the COVID-19 pandemic.
- Separate from the HNP, the Department has a public-facing Asthma Dashboard (Dashboard), which, according to the Department, is updated annually. However, the Dashboard that was publicly available during the course of our fieldwork was significantly outdated – with emergency department visits and hospitalizations displaying information from 2012–2014, deaths displaying information from 2014–2016, and asthma prevalence data as of 2016. The Department indicated that it was unable to update the Dashboard due to the COVID-19 pandemic; however, the majority of the data, such as the asthma indicators, hadn't been updated in the 4 to 6 years prior to the onset of the pandemic. Without current data, the Department, public health programs, policy makers, and other health care providers cannot adequately recognize the scope of the asthma problem, design and implement solutions, and evaluate impacts in reducing the levels of asthma in the State.
- The Department has not conducted an overall evaluation of the HNP to determine program effectiveness since 2017, nor has it performed any evaluations of LHDs as outlined in the contracts.

Key Recommendations

- Improve oversight of program performance, such as developing policies and procedures, and assess whether LHD services are provided in the target areas identified.
- Collect missing LHD annual reports, cost-benefit analyses, and quarterly reports, where feasible, and ensure all reports are collected going forward.
- Ensure all LHDs are conducting the 1-year asthma follow-up visits and using the required form.
- Update the Asthma Dashboard annually, according to Department policy, and use this data to assess the impact of the HNP on the asthma burden in the State.
- Develop an evaluation to determine the overall effectiveness of the HNP and performance of the LHDs.

Office of the New York State Comptroller
Division of State Government Accountability

August 2, 2022

Mary T. Bassett, M.D., M.P.H.
Commissioner
Department of Health
Corning Tower Building
Empire State Plaza
Albany, NY 12237

Dear Dr. Bassett:

The Office of the State Comptroller is committed to helping State agencies, public authorities, and local government agencies manage their resources efficiently and effectively. By so doing, it provides accountability for the tax dollars spent to support government operations. The Comptroller oversees the fiscal affairs of State agencies, public authorities, and local government agencies, as well as their compliance with relevant statutes and their observance of good business practices. This fiscal oversight is accomplished, in part, through our audits, which identify opportunities for improving operations. Audits can also identify strategies for reducing costs and strengthening controls that are intended to safeguard assets.

Following is a report of our audit entitled *Management of Indoor Air Quality for Individuals With Asthma*. This audit was performed pursuant to the State Comptroller's authority under Article V, Section 1 of the State Constitution and Article II, Section 8 of the State Finance Law.

This audit's results and recommendations are resources for you to use in effectively managing your operations and in meeting the expectations of taxpayers. If you have any questions about this report, please feel free to contact us.

Respectfully submitted,

Division of State Government Accountability

Contents

Glossary of Terms

Term	Description	Identifier
CDC	Centers for Disease Control and Prevention	*Federal Agency*
Dashboard	Asthma Dashboard	*Key Term*
Department	Department of Health	*Auditee*
E-Form system	Mobitask Electronic Form system	*System*
HNP	Healthy Neighborhoods Program	*Program*
LHD	Local Health Department	*Key Term*
RFA	Request for Application	*Key Term*

Background

Asthma is a significant public health problem in the United States. It is one of this country's most common and costly diseases, which often requires emergency care and hospital admission and is responsible for a high number of missed school and/or work days. According to the Centers for Disease Control and Prevention (CDC), in 2018, asthma accounted for 178,530 hospitalizations and over 1.6 million emergency department visits in the United States. In 2019, asthma accounted for 3,524 deaths. In New York, it is estimated that 1.4 million adults and 400,000 children are living with asthma.

Asthma is a chronic disease of the lungs that causes wheezing, breathlessness, chest tightness, and coughing and, if not properly treated, can impact an individual's quality of life. Limited access to care, medication adherence, and environmental factors negatively impact asthma. Indoor air pollutants, such as dust mites, pests (cockroaches, mice), mold, and smoke, worsen asthma and can trigger asthma attacks. There is no cure for asthma, but it can be managed with treatment and proper prevention of asthma attacks.

The COVID-19 pandemic has had significant impacts on New Yorkers, especially those living with chronic diseases such as asthma. According to the CDC, people with moderate-to-severe or uncontrolled asthma are more likely to be hospitalized from COVID-19. Thus, during this time, the avoidance of asthma triggers is of critical importance for individuals with asthma. Reducing asthma triggers is one of the four main objectives of the Department of Health's (Department) Healthy Neighborhoods Program (HNP).

The HNP is designed to provide environmental health services to targeted high-risk neighborhoods. These areas sometimes include environmental justice communities and are usually home to at-risk populations, including low-income and minority families, living in homes and neighborhoods with a disproportionate number of residential hazards.

The HNP's goals as they relate to asthma include reducing hospitalizations due to asthma and limiting exposure to indoor air pollutants that are known asthma triggers. To accomplish these goals, the HNP contracts with Local Health Departments (LHDs) to raise awareness of and help families to manage asthma in order to reduce asthma triggers and asthma-related illness.

The HNP, through the LHDs, identifies poor indoor environmental factors in targeted high-risk geographic areas. The contracts require each LHD to identify specific target areas based on documented existence of unmet environmental health needs. Target areas should be chosen based on existing population-based data (e.g., rates of poverty, levels of education, percent of minority populations, asthma hospitalization rates). Other factors, including incidents of identified lead paint hazards, infestation, indoor air complaints, and percent of substandard housing, should also be considered.

LHDs identify homes to visit through door-to-door canvassing, referrals, and completed home assessments and repairs. During home visits, LHDs conduct in-home assessments for asthma, tobacco cessation, indoor air quality, lead, fire safety, and other environmental health hazards that may affect people with asthma and provide interventions such as education, referrals, and products to mitigate these hazards.

LHDs can provide referrals to community agencies or services to assist individuals with asthma management or treatment. Referrals may include, but are not limited to, a personal physician, a managed care provider, fire investigation, senior services, smoking cessation, Child Health Plus, Family Health Plus, Childhood Lead Poisoning Prevention Program, Home Energy Assistance Program, and Housing and Urban Development. LHDs can also provide carbon monoxide detectors, fire extinguishers, smoke detectors, and other injury prevention products.

LHDs' contracts require them to conduct three types of home visits: initial visits, 90-day revisits to at least 25% of the initial visits, and 1-year follow-up visits to households where individuals with asthma were identified during the initial visit. In addition, LHDs must compile data to compute home access rates (number of homes where a visit was performed vs. number of home visits attempted).

LHDs are required to submit home visit results, quarterly reports, cost-benefit analyses, and annual reports to the Department. Prior to October 2017, LHD home visit results were submitted to the Department electronically through its scannable system; thereafter, they were submitted through its Mobitask Electronic Form (E-Form) system. Quarterly, annual, and cost-benefit analysis reports are submitted to the Department via email.

The Department posted a Request for Application (RFA) in October 2013 for LHDs to apply for HNP funding. Contracts were awarded for a 5-year period from April 1, 2014 through March 31, 2019 and then extended through March 31, 2021 due to the COVID-19 pandemic. A total of 20 LHDs applied for contracts, ranging from $100,000 to $300,000 annually based on total available funding. Thirteen LHDs were awarded contracts in the first year, and six additional LHDs were awarded contracts in the second year. HNP funding for the 19 contracts totaled $26.4 million for the period April 1, 2014 through March 31, 2021 (see Table 1). (Note: While 19 LHDs were awarded contracts, the LHD contract for New York City included Bronx, Kings, New York, Queens, and Richmond counties, resulting in 23 covered counties). The remaining LHD, covering Seneca County, was not awarded a contract because it did not pass the Department's eligibility review.

Table 1 – LHD Contracts Awarded, April 1, 2014–March 31, 2021

LHD	Contract Amount Awarded
Albany County	$1,558,672
Broome County	1,614,800
Cayuga County	1,030,440
Clinton County	1,303,008
Columbia County	801,975
Cortland County	849,553
Erie County	1,994,400
Monroe County	1,032,509
New York City	1,619,400
Niagara County	1,079,600
Oneida County	1,511,907
Onondaga County	1,402,728
Orange County	1,994,400
Rensselaer County	1,545,988
Rockland County	1,555,632
Schenectady County	1,994,400
Tioga County	664,800
Tompkins County	1,256,472
Westchester County	1,619,400
Total	**$26,430,084**

LHDs visited 31,302 households, consisting of 77,353 individuals, from October 31, 2016 through January 19, 2021. Of the total households visited, 5,643 (18%) had at least one individual with asthma.

Separately from the HNP, the Department maintains a public-facing Asthma Dashboard (Dashboard) that tracks asthma data at State, county, and ZIP code levels and is a key resource for assessing asthma burden in the State and tracking intervention progress. (Asthma burden for adults and children is defined using asthma-related hospitalization and asthma-related emergency department visit rates as indicators.) Information in the Dashboard is designed to help both the Department and counties as well as public health programs, policy makers, and other health care providers recognize the scope of the asthma problem, design and implement solutions, and evaluate impacts in reducing the levels of asthma in the State. The Dashboard includes 40 asthma-related indicators for asthma prevalence, emergency department visits, hospital discharges, mortality rates, and information from the Medicaid and Child Health Plus databases.

The Dashboard information that was publicly available during the course of our fieldwork was significantly outdated – with data on emergency department visits and hospitalizations from 2012–2014, deaths from 2014–2016, and asthma prevalence data as of 2016. Department officials indicated that they were in the process of updating the Dashboard but were delayed due to the COVID-19 pandemic. However, with the Dashboard itself stating it is updated annually, this does not explain why, prior to the pandemic, the data was from as far back as 2014 – 6 years before the pandemic began. After we completed our fieldwork, the Department updated the

Dashboard in November 2021 with asthma indicator data from 2016–2018 and asthma prevalence data as of 2018.

Figures 1 and 2 show the prevalence of adults with asthma in the State in 2016 and 2018, respectively, as well as the counties in which the HNP operates.

Figure 1 - Adult Ashtma Prevalence by County as of 2016 (per 100 residents)

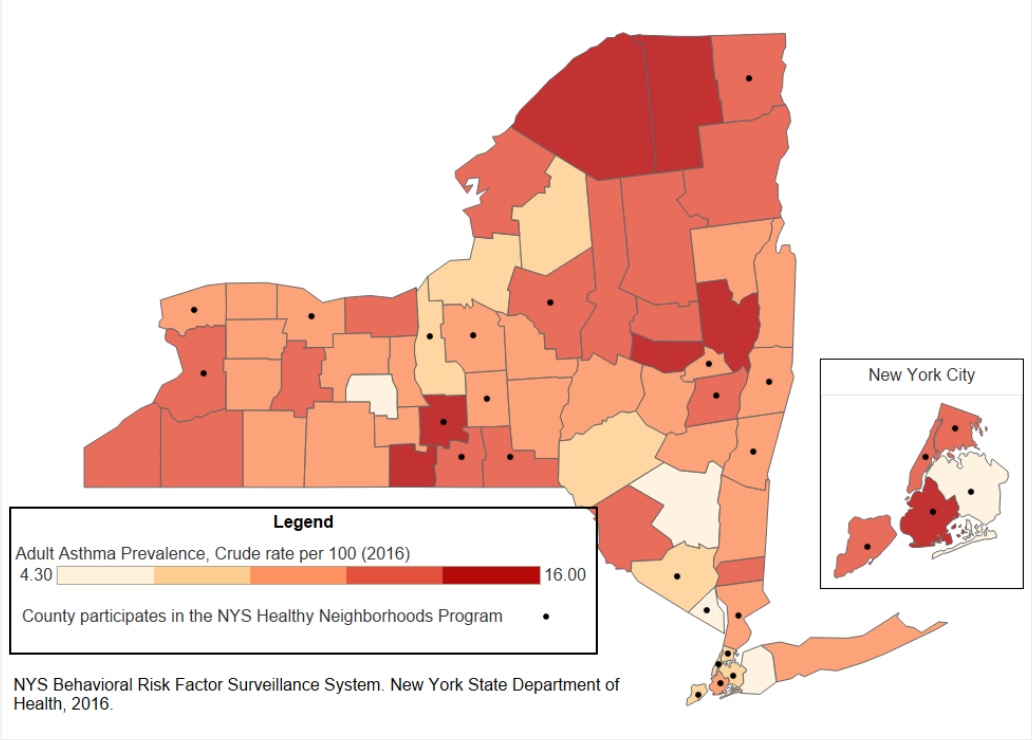
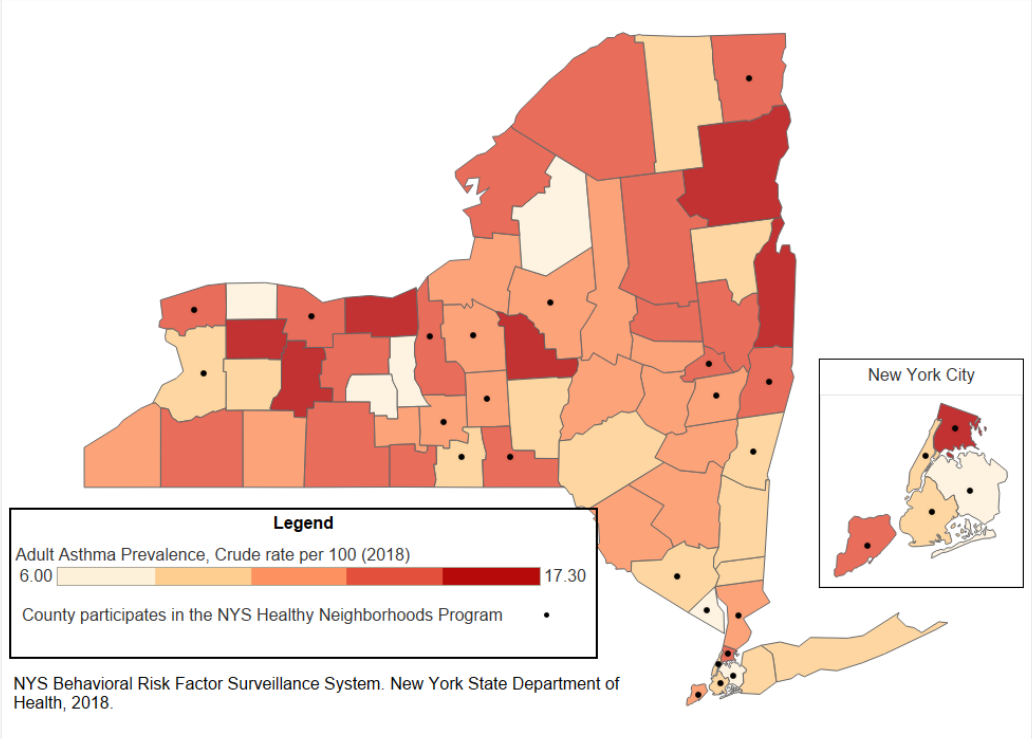


Figure 2 - Adult Ashtma Prevalence by County as of 2018 (per 100 residents)



NYS Behavioral Risk Factor Surveillance System. New York State Department of Health, 2018.

Audit Findings and Recommendations

The Department, through its contracts with LHDs, has identified poor indoor environmental factors in targeted geographic areas of the State and provides individuals with information, products, and referrals to raise awareness of and assist with management of asthma. However, the Department needs to improve its oversight and monitoring of the HNP to ensure each LHD continues to assist individuals with asthma in targeted areas in order to reduce asthma-related illness and hospitalizations.

We found that LHDs met their contract requirement to submit home visit results to the Department; however, the Department could not provide 39 of the 106 LHD quarterly, cost-benefit analysis, and annual reports required by their contracts. Additionally, we reviewed five LHD contracts and found that, while the target areas identified at the beginning of the contract period were appropriate, the Department did not verify whether these LHDs provided services in their targeted areas.

Of significance, separate from the HNP, the data for the Department's public-facing Dashboard that was available during our audit dated as far back as 2014. According to the Department, its Dashboard "tracks asthma data at State, county, and ZIP code levels and is a key resource for assessing asthma burden in New York State and tracking intervention progress" and also "is updated annually." Without current data, the Department is unable to assess whether the LHD interventions are effective or evaluate overall program performance in order to make improvements where necessary. It also means that the LHDs are unable to collect current data to measure their own performance and make improvements. The Department indicated that it was unable to update the Dashboard due to the COVID-19 pandemic; however, the data hadn't been updated in the 6 years prior to the onset of the pandemic.

The Department's lack of adequate oversight coupled with old data means it cannot properly assess whether LHDs are raising asthma awareness and helping individuals to manage their asthma.

We reviewed home visit data submitted by all 19 LHDs using the Department's E-Form system for the period from October 31, 2016 through January 19, 2021 to determine the effectiveness of the program related to revisits, access rates, and referrals given. During this period, LHDs visited 31,302 households consisting of 77,353 individuals. Of the total households visited, 5,643 (18%) had at least one individual with asthma. We found there were improvements in home visit access rates, and the data indicated that individuals were using the referrals and products provided by LHDs.

However, none of the LHDs sufficiently performed the 1-year follow-up visits to individuals who were identified as having asthma during the initial home visit. The Department initiated a new procedure in 2019 for collection of this information to be able to track these visits and more effectively evaluate the program; however, it took no action on the lack of LHD compliance even in the years leading up to the pandemic. Additionally, the Department has not conducted an overall analysis of LHD home visits, referrals, products given, and cost-benefit analyses since January 2017 to determine if the program is effectively meeting its goals and objectives.

As incidents of asthma attacks and related hospitalizations are of even greater concern due to COVID-19, mitigating environmental impacts through intervention is crucial during this time. Therefore, it is vital that the Department provide adequate oversight and monitoring of the HNP, including the use of up-to-date program data.

Identifying Target Areas

For the five HNP contracts we reviewed, we found that the target areas chosen by the LHDs and approved by the Department were appropriate; however, the Department did not ensure that services were then provided in those targeted areas throughout the term of the contract. We found that all five LHD contracts included environmental and population risk factors used to target specific geographic areas. The Department provided no evidence of, or procedures for, reviewing LHD-submitted home visit data to ensure that services are provided in the targeted areas approved in the contract. LHD visit data submitted to the Department does contain household address information with which the Department could perform this analysis and verification; however, this data was not provided to the audit team. Department officials stated that, while LHD-proposed target areas are approved when the contract is executed, flexibility is allowed in terms of where the program can be implemented. They also stated that this is by design, as one of the fundamental elements of the HNP is that each LHD can adjust to the changing needs of the community, if warranted. While the contracts allow this flexibility, the Department does not have a process in place to approve and document these changes.

Healthy Neighborhoods Program Evaluation

The Department did not evaluate contract performance to determine if asthma conditions have improved in target areas throughout the contract period. Overall, LHDs did not meet the goals outlined in their contracts, and the Department has not completed an evaluation of the HNP since January 2017 to determine its effectiveness. The Department should take advantage of the data available to it to assess the overall program as well as to engage with LHDs when they are not meeting their goals. In addition, the Department should review asthma prevalence and burden statewide to determine if additional LHDs would benefit from the HNP.

Contract Reporting

HNP contracts require LHDs to submit quarterly, annual, and cost-benefit analysis reports. These reports summarize LHDs' contract goals, activities performed, and use of funds. We requested all 33 annual reports and all 33 cost-benefit reports for the entire funding period of April 1, 2014 through March 31, 2021 as well as all 40 quarterly reports for the period of April 1, 2017 through March 31, 2020 for five LHDs (Rensselaer, Columbia, Erie, and Tompkins counties and New York City) to determine if the LHDs were compliant with their contract requirements. The Department could not provide 39 of the 106 (37%) required reports for these LHDs. Without these reports, the Department cannot be certain if LHDs are meeting their

contract goals, including number of visits, percentage of revisits, and products or referrals given.

Department officials stated that reports were submitted as paper files prior to implementing digital tracking sheets for recording purposes in 2018. Seventeen of the 39 reports that could not be located were from this period. One of the 39 missing reports was from after this period; however, the Department could not provide an explanation as to why this report was missing.

Department officials informed us that the 21 remaining missing reports were for fiscal years 2019-20 and 2020-21 and have not been submitted due to staffing and program impacts related to the COVID-19 pandemic. In March 2020, the Department suspended routine reporting to allow flexibility for LHDs to respond to the pandemic. As of December 2021, the Department still had not requested the required reports due during the COVID-19 pandemic. While this is understandable during the early days of the pandemic, given the potential impact of COVID-19 on individuals with asthma, it is important for the Department to have access to this information in order to support and improve intervention efforts and mitigation of asthma triggers through the HNP.

Contract Goals

Contract goals, such as expected visit numbers, reducing exposures to tobacco, increasing the number of individuals with asthma receiving assistance, and reducing household asthma triggers, are summarized in LHD annual reports. We reviewed 19 annual reports for five LHDs to determine if they met their goals related to the number of visits performed. Of the 19 reports, 16 reports contained visit-related goals. Of the 16 visit-related goals, three were not met. Further, one LHD did not include any visit goals in its three annual reports that we reviewed; therefore, the Department cannot adequately assess performance for this contract.

Household visit goals from the HNP contract are outlined in LHD annual reports. The contracts stipulate that LHDs should have a methodology in place to achieve the goals and objectives in their targeted areas. The contracts require LHDs to conduct three types of home visits: initial visits, 90-day revisits to at least 25% of the initial visits, and 1-year follow-up visits for all households where individuals with asthma were identified during the initial visit. In addition, LHDs must compile data to compute home access rates (number of homes where a visit was performed vs. number of home visits attempted) and use that information to improve access rates over time.

We analyzed visit data representing 28,056 home visits reported electronically to the Department by all LHDs for the 2 fiscal years ended March 31, 2020, and found that access rates improved over the two periods. However, the 25% contract requirement for 90-day revisits was not met for 11 of the 19 LHDs (see Table 2).

Table 2 – 90-Day Revisits by LHDs for the 2 Fiscal Years Ended March 31, 2020

LHD	Initial Visits	Revisits	Percentage
Albany County	1,208	292	**24%**
Broome County	572	37	**6%**
Cayuga County	1,026	338	33%
Clinton County	604	339	56%
Columbia County	952	156	**16%**
Cortland County	608	149	25%
Erie County	2,068	599	29%
Monroe County	732	150	**20%**
Niagara County	938	606	65%
Oneida County	856	68	**8%**
Onondaga County	1,450	452	31%
Orange County	1,340	228	**17%**
New York City	638	127	**20%**
Rensselaer County	1,375	340	25%
Rockland County	866	49	**6%**
Schenectady County	613	139	**23%**
Tioga County	601	101	**17%**
Tompkins County	836	254	30%
Westchester County	467	31	**7%**

Even though the visit goals are clearly stated in the contract, Department officials explained that they were not a requirement but simply a number to measure LHDs against to determine whether they are performing enough visits. Officials stated that they look at trends from period to period to identify potential drop-offs in the number of visits performed that would require further explanation from LHDs as to what happened; however, we saw no evidence of this review, or of any action taken in response to drop-offs from one period to the next. Further, Department officials indicated that they look to see if LHDs are performing around 25% of revisits, and the HNP isn't funded based on the number of visits performed. They also stated that the E-Form system for reporting visit data only allows for one revisit to be recorded per initial household visit; however, LHDs can perform additional visits to the same household as they deem necessary, but there is no mechanism to capture these additional visits. The Department should proactively monitor these visits and take advantage of the contract requirements to increase accountability by the LHDs to ensure that as many people with asthma as possible get the assistance they need.

We also found that none of the LHDs sufficiently performed 1-year follow-up visits to individuals who were identified as having asthma during the initial home visit in accordance with the contracts (see Table 3). LHDs should conduct a 1-year follow-up visit for all individuals identified as having asthma in order to assess the impact of the products and referrals given at initial visits. The 1-year follow-up visits are an important tool in evaluating the progress LHDs are making in mitigating the environmental hazards that put people with asthma at a higher risk of illness,

hospitalization, or even death. The Department should increase its monitoring of LHDs to ensure they conduct these visits and submit the information in the correct format.

Table 3 – LDHs' 1-Year Follow-Up of Asthma Cases Identified at Initial Visit

LHD	Initial Visits Identifying an Asthma Case*	1-Year Follow-Up Visits**	Percentage
Albany County	192	5	3%
Broome County	120	4	3%
Cayuga County	99	0	0%
Clinton County	165	56	34%
Columbia County	85	1	1%
Cortland County	42	7	17%
Erie County	151	36	24%
Monroe County	156	0	0%
Niagara County	35	14	40%
New York City	267	59	22%
Oneida County	114	0	0%
Onondaga County	246	0	0%
Orange County	222	0	0%
Rensselaer County	265	14	5%
Rockland County	46	0	0%
Schenectady County	171	4	2%
Tioga County	16	0	0%
Tompkins County	44	21	48%
Westchester County	43	0	0%
Totals	**2,479**	**221**	**9%**

*For fiscal year ended March 31, 2019.
**For fiscal year ended March 31, 2020.

Prior to March 2019, 1-year asthma follow-up visits were entered into the E-Form system as a revisit; therefore, the Department cannot accurately determine the number of 1-year asthma follow-up visits that were completed prior to contract year 2019-2020. In March 2019, the Department developed a 1-year asthma follow-up form to better track these follow-up visits; however, we found that only 11 of the 19 LHDs used the 1-year asthma follow-up form during contract year 2019-2020.

Program Evaluation

The Department is not completing evaluations of the LHDs, or the HNP as a whole, as outlined in its contracts. The HNP contracts require that each LHD perform an evaluation of its efforts on an ongoing basis to determine whether they are reaching their identified target population. Department officials stated that LHDs achieve this evaluation through revisit data, annual reports, and the cost-effectiveness of their efforts based on their cost-benefit analyses. The HNP contracts also state that the Department will use the data on the LHD evaluation forms to evaluate each LHD as well as the HNP statewide. The Department last issued an overall evaluation of the program in January 2017. That evaluation included data obtained from LHDs' home visits from October 2007 through June 2011. The Department did not provide any evidence that it is using current LHD data to perform ongoing evaluations of the HNP. The Department should use current data to evaluate LHDs, as well as the HNP

overall, on a regular basis to determine the effectiveness in reducing environmental hazards in order to better protect and assist individuals with asthma.

In addition, the Department should use the data that is readily available via its Dashboard to assess aspects of the HNP. For example, we used the Dashboard to compare the 2012–2014 data with the 2016–2018 data for emergency department visits, hospitalizations, and mortality rates for the 23 counties participating in the HNP versus the remaining, non-participating counties. We identified the following:

- Emergency department visits: There was a 17.9% decrease in the number of emergency department visits in the counties with HNP contracts, compared to a 16.6% decrease in the counties without HNP contracts.
- Hospitalizations: There was a 43.1% decrease in hospitalizations in the counties with HNP contracts, compared to a 51.6% decrease in the counties without HNP contracts.
- Mortality rates: There was a 7.8% decrease in deaths in the counties with HNP contracts, compared to a 4.5% increase in deaths in the counties without HNP contracts.

Taking advantage of this data would enable the Department to evaluate the impact of the HNP on the asthma burden in the State. This, in turn, would help the Department make program improvements and determine whether additional LHDs could benefit from the HNP.

Department officials stated that HNP success, in the form of improved outcomes, is measured at the individual level through revisits to people with asthma and homes with serious deficiencies identified during initial home visits. During 90-day revisits, LHDs determine if safety products are still in use, what changes were made to impact the environmental conditions, and what the results are of any referrals made during the initial visit. The 1-year asthma follow-up assesses a reduction of household allergens, improved asthma management, successful referrals (such as smoking cessation), and public satisfaction with the program. Information collected at the 90-day revisits should also be assessed at the 1-year follow-up visits. Through these revisits, Department staff can evaluate whether LHD referrals were acted upon and determine if asthma and other housing-related outcomes have improved as a result of the initial visit. Therefore, it is imperative that the Department work with LHDs to improve their revisit rates and perform more 1-year follow-up visits to individuals with asthma.

Recommendations

1. Improve oversight of program performance, such as developing policies and procedures, and assess whether LHD services are provided in the target areas identified.
2. Collect missing LHD annual reports, cost-benefit analyses, and quarterly reports, where feasible, and ensure all reports are collected going forward.

3. Ensure that LHDs are performing the minimum number of revisits per their HNP contracts.

4. Ensure all LHDs are conducting the 1-year asthma follow-up visits per their HNP contract and are accurately reporting the visits using the E-Form system.

5. Update the Asthma Dashboard annually, according to Department policy, and use this data to assess the impact of the HNP on the asthma burden in the State.

6. Develop an evaluation to determine the overall effectiveness of the HNP and performance of LHDs.

Audit Scope, Objective, and Methodology

The objective of our audit was to determine if the Department effectively identified poor housing conditions for residents with asthma and worked with LHDs to ensure home visits were prioritized. The audit covered the period from April 2014 to January 2021.

To accomplish our objective and assess related internal controls, we reviewed relevant contracts related to the HNP. We interviewed Department officials to gain an understanding of monitoring of indoor air quality for individuals and obtain relevant data used to monitor the program. To assess the Department's oversight of the HNP contracts, we obtained LHD home visit data from the HNP to determine whether the Department was providing proper oversight and monitoring contracts with LHDs. The data file contained 55,017 initial visits, revisits, 1-year asthma follow-up visits, and no access visits for the period from October 31, 2016 to January 19, 2021. We analyzed the data to determine if the LHDs met contract visit goals and provided appropriate interventions. We also used our analysis to determine if the products and referrals provided at the initial visits were also present during follow-up visits to document improvements in home conditions. We selected a random and a judgmental sample, totaling five of the 19 LHD contracts, to determine if the Department was reviewing annual, quarterly, and cost-benefit reports as well as whether it had appropriate LHD justification information to approve target areas for the period from April 2014 through January 2021. We selected three contracts randomly and two contracts on a judgmental basis: one contract that was the highest dollar amount awarded and one contract that was selected based on its location. We also reviewed in-home assessment forms, system manuals, and RFA scoring tool result forms, as well as emails and correspondence between the Department and LHDs.

We assessed the reliability and accuracy of Department-provided LHD home visit data and determined the data to be reliable. We could not obtain the original data used by the Department for its Dashboard; therefore, this information was not tested as part of our audit, and the Department would need to verify its reliability before making further use of it.

As part of our audit procedures, we used Geographic Information Systems (GIS) software for geographic analysis, and imported the results of this analysis into Tableau to create visualizations (Figures 1 and 2) to enhance understanding of our report. To improve ease of use, we made minor locational changes to these visualizations. These changes do not materially affect the accuracy or interpretation of the underlying data or visualization. Colors were selected from https://colorbrewer2.org/ by Cynthia A. Brewer, Geography, Pennsylvania State University.

Statutory Requirements

Authority

The audit was performed pursuant to the State Comptroller's authority as set forth in Article V, Section 1 of the State Constitution and Article II, Section 8 of the State Finance Law.

We conducted our performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

In addition to being the State Auditor, the Comptroller performs certain other constitutionally and statutorily mandated duties as the chief fiscal officer of New York State. These include operating the State's accounting system; preparing the State's financial statements; and approving State contracts, refunds, and other payments. These duties could be considered management functions for purposes of evaluating organizational independence under generally accepted government auditing standards. In our professional judgment, these duties do not affect our ability to conduct this independent performance audit of the Department's management of indoor air quality for individuals with asthma.

Reporting Requirements

A draft copy of the report was provided to Department officials for their review and comment. Their comments were considered in preparing this final report and are attached in their entirety to the end of it. We address certain of their statements in our State Comptroller's Comments, which are embedded within the Department's response. Department officials agreed with all six recommendations and indicated actions they would take to implement them.

Within 180 days after final release of this report, as required by Section 170 of the Executive Law, the Commissioner of the Department of Health shall report to the Governor, the State Comptroller, and the leaders of the Legislature and fiscal committees, advising what steps were taken to implement the recommendations contained herein, and where recommendations were not implemented, the reasons why.

NEW YORK STATE OF OPPORTUNITY. Department of Health

KATHY HOCHUL
Governor

MARY T. BASSETT, M.D., M.P.H.
Commissioner

KRISTIN M. PROUD
Acting Executive Deputy Commissioner

June 17, 2022

Mr. Brian Reilly, Audit Director
Office of the State Comptroller
Division of State Government Accountability
110 State Street – 11th Floor
Albany, New York 12236-0001

Dear Mr. Reilly:

Enclosed are the Department of Health's comments on the Office of the State Comptroller's Draft Audit Report **2020-S-59** entitled, **"Management of Indoor Air Quality for Individuals with Asthma."**

Thank you for the opportunity to comment.

Sincerely,

Kristin M. Proud

Kristin M. Proud
Acting Executive Deputy Commissioner

Enclosure

cc: Diane Christensen
Frank Walsh
Amir Bassiri
Geza Hrazdina
Daniel Duffy
James Dematteo
James Cataldo
Brian Kiernan
Timothy Brown
Amber Rohan
Michael Atwood
Melissa Fiore
OHIP Audit

Empire State Plaza, Corning Tower, Albany, NY 12237 | health.ny.gov

NYS Department of Health Comments on
Draft Audit Report OSC 2020-S-059
Management of Indoor Air Quality for Individuals with Asthma

The NYSDOH Healthy Neighborhoods Program (HNP) is one of several programs with components designed to reduce the statewide asthma burden through improving indoor air quality. HNP helps identify hazardous indoor environmental factors and provides individuals with information and referral resources to mitigate those hazards. HNP is designed to provide preventative environmental health services to targeted geographic areas, usually comprised of low-income families and often minorities, living in homes and neighborhoods with a disproportionate number of residential hazards including areas identified as environmental justice communities. Improving home environments is a cornerstone for improving public health and lays the foundation for healthier generations to come. The four basic goals of HNP are prevention of:

- residential injuries and deaths,
- childhood lead poisoning,
- hospitalizations due to asthma, and
- exposure to indoor air pollutants.

HNP is not a regulatory program and there are no applicable statues, regulations, or formal guidance documents.

State Comptroller's Comment 1 – While there are no applicable statutes, regulations, or formal guidance documents, the contracts entered into with the LHDs would serve as the regulatory structure of the program that the Department is overseeing.

The program seeks to reduce the burden of housing related illnesses and injury through a holistic, healthy homes approach. In-home assessments and interventions are provided for asthma, tobacco cessation, indoor air quality, lead, fire safety, and other environmental health hazards in selected communities throughout NYS. The program targets housing in high-risk areas and utilizes a door-to-door canvassing approach along with referrals, to reach these high-risk homes. Homes are visited during an initial assessment and evaluated for environmental health and safety issues. Re-visits are conducted as needed.

While the Department is responsible for overseeing HNP, contracts are in place with grantee Local Health Departments (LHDs) to implement the program at the local level. The LHDs are responsible for raising awareness and helping families manage environmental health challenges in their home. The LHDs achieve this by identifying the homes for visits through canvassing and referrals, completing home visits, and providing interventions and referrals to improve environmental conditions. The LHDs are required to submit home visit information, quarterly reports, and annual reports to NYSDOH HNP. LHD funding is awarded through a Request for Application (RFA) contract process. During the audit period, contracts were awarded for a five-year period, and the last contract period was extended through March 31, 2022 due to COVID-19. During the most recent contract period, April 1, 2014 through March 31, 2022, 19 LHDs were awarded contracts totaling $22,750,418. LHDs made 109,575 home visits, consisting of 96,472 initial and 13,103 follow up home visits for HNP during the timeframe for the scope of the audit, from April 1, 2014 through January 19, 2021.

Response to Issues and Recommendations

Background

Throughout OSC's Draft Audit Report 2020-S-059 Management of Indoor Air Quality for Individual's with Asthma (the Report) the emphasis on the Healthy Neighborhoods role as an asthma care coordination program is significantly overstated. The draft report states 'During home visits, LHDs conduct in-home assessments for asthma, tobacco cessation, indoor air quality, lead, fire safety, and other environmental health hazards that may affect people with asthma and provide interventions such as education, referrals, and products to mitigate these hazards'. Not only is this the only mention in the Report of the other HNP goals, which are considered equally important to the asthma component, they are mentioned as only pertaining to 'people with asthma'. This is a misrepresentation of both the goals of HNP and the population it serves. Framing the HNP goals in this way implies that HNP only considers the other priority environmental health factors when they impact an individual with asthma, which is not the case.

State Comptroller's Comment 2 – Our report does not state that HNP is a care coordination program. Our audit focused on asthma as one of the four components of the HNP.

The report does not misrepresent the goals of the HNP and the population it serves; however, in response to the Department's feedback, we have further clarified on page 6 of the report.

HNP attempts to identify indoor environmental factors of concern and provide individuals with information and referral resources to mitigate those hazards in targeted geographic areas including areas identified as environmental justice communities. The four basic goals are preventing residential injuries and deaths, childhood lead poisoning, hospitalizations due to asthma, and exposure to indoor air pollutants.

Within these four broad goals, HNP provides in home assessments and also provides education, low-cost interventions, and referrals for a wide range of housing based environmental health hazards, including but not limited to fire safety, carbon monoxide poisoning, indoor tobacco smoke childhood blood lead testing, physical housing defects such as water leaks, mold growth, radon, pest infestations, adequate air temperature and if an asthmatic is identified, additional asthma triggers.

The purpose of HNP is not to provide case management or a home visit for every individual within a specific area. HNP activities are not limited only to persons with asthma, but provide a broad range of services to any resident in or near the chosen target area. Asthma status does not impact the identification of or messaging surrounding the other environmental health issues evaluated in a HNP home visit.

State Comptroller's Comment 3 – Our report does not state that the HNP provides case management, nor does it state that it provides home visits for every individual within a specific area. The audit objective and the Background section of the report make clear that the focus of our audit is on the asthma component of the HNP.

The Report portrays, largely by omitting mention of key activities and successes of the HNP program, that HNP is an asthma program that incidentally addresses other environmental health

issues. In actuality, HNP is a healthy homes program with an additional asthma component. The Department believes that the mischaracterization of HNP as primarily providing asthma intervention services in the draft report is both incorrect and misleading and needs to be corrected.

State Comptroller's Comment 4 – Our report is not intended to characterize the HNP as just an asthma intervention service. The audit focused solely on the asthma component of the HNP.

For example, the Report indicates that of all assessments performed within the counties evaluated during the audit period, 18% included at least one asthmatic. HNP, however, provided our broad range of service during all of the assessments regardless of occupant asthma status. As a result, the Report implies an overall evaluation of HNP while only considering one aspect of the program. Ignoring several, equally important components of the program is neither an adequate nor an accurate approach to assessing HNP performance or success.

State Comptroller's Comment 5 – As stated in Comment 4 above, the report evaluated the asthma component of the program and the contractual obligations associated with asthma, such as visit goals.

Moreover, our report concluded that the Department, through its contracts with LHDs, has identified poor indoor environmental factors in targeted geographic areas of the State and provides individuals with information, products, and referrals to raise awareness of and assist with management of asthma. However, there are opportunities to improve oversight.

Audit Findings and Recommendations (Identifying Target Areas)

The Department would like to clarify that while LHD proposed target areas are approved when the contract is executed, flexibility is allowed in where the program can be implemented. This is by design, as one of the fundamental elements of HNP is that the LHD can adjust to the changing needs of the community if warranted. While it is required that the majority of HNP work is focused in the approved target area(s), we allow some efforts to be focused outside of those areas at the discretion of LHD HNP staff, and with approval of NYSDOH HNP program staff. For example, permission was granted to Rensselaer County to canvass a town outside of their target area after a devastating fire occurred there. Local HNP staff felt as though their services could bring attention to fire safety in the aftermath of the tragedy to help prevent future incidents. Had it not been for the diligence of local HNP staff and flexibility to adjust target areas, the opportunity to intervene at a time when the local community was receptive would have been missed. The Department disagrees with the allegation that there is no process in place to approve and document these changes. They are generally requested by the grantee via email, and approved in the same manner.

State Comptroller's Comment 6 – Contrary to the point that changes are generally requested and approved via email, during our audit, the Department stated that requests are often verbal in nature and may not have always been documented at the time of approval. The Department provided no formal policy to review and approve changes to target areas in LHD contracts.

Audit Findings and Recommendations (Healthy Neighborhoods Program Evaluation)

The Department disagrees with the statement that contract performance is not evaluated to determine if asthma has improved in target areas throughout the contract period. By design, LHDs

perform ongoing evaluation of the program through 90 Day and Asthma Revisits. These visits are intentionally designed to provide short term feedback regarding the effectiveness of the interventions and referrals provided during the initial home assessment. Additionally, they evaluate the attainment of their workplan goals through their annual reports. While measuring population level improvement in asthma outcomes via the dashboard is obviously important, it is not the appropriate data source for evaluation of the HNP. As a triage-based program targeting numerous housing related health issues, HNP strives to reach as many homes and individuals as possible to identify multiple pressing environmental concerns, including asthma, within the home and link residents to services through referral programs. Success in the form of improved outcomes is measured at the individual level through revisits to asthmatics and homes with other serious deficiencies identified at the initial home visit. Through revisits, HNP staff can evaluate whether referrals were acted upon, and if asthma and other housing related outcomes have improved as a result of the initial visit.

State Comptroller's Comment 7 – As noted in our report, several LHDs are not submitting all the required reports and are not sufficiently meeting their revisit goals. This makes it more difficult for the Department to evaluate performance.

The Department does agree that additional process evaluations of the HNP program will be useful for determining the efficiency of program delivery and good overall contract management.

Audit Findings and Recommendations (Contract Reporting)

The Department disagrees with the audit finding that HNP does not provide adequate oversight of the program. While it is true that LHDs must submit home visit results, quarterly reports, cost benefit analyses, and annual reports, NYSDOH HNP program staff is able to monitor program performance at any time using our HNP Data Dashboard system. As LHD HNP staff perform home visits using the Mobitask data collection application, the data is uploaded when the user submits the report upon return to internet access. Once submitted, all data collected in the application can be utilized in reports through the Data Dashboard HCS application. Using this, program can monitor real time performance of all grantee LHDs at any time without the need to wait for submission of narrative reports.

State Comptroller's Comment 8 – The Department clearly states that LHDs must submit quarterly, cost-benefit, and annual reports. While the Department states that HNP staff can monitor real-time performance of LHDs without the need to wait for such reports, the Department never provided any evidence of this monitoring through the Data Dashboard HCS application. Moreover, and as noted in our report, LHDs are not performing all required visits and, therefore, would not be submitting information to the Mobitask E-Form system for the Department to be able to monitor program performance.

The Department would like to clarify the impact of the COVID-19 pandemic on LHD operation. The Report recognizes that during the 'early days of the pandemic' the delay in report submission was understandable, but goes on to state that due to the potential impact of COVID-19 on asthmatics, the reports should have been submitted. This statement illustrates a fundamental misunderstanding of the ongoing burden of the COVID-19 pandemic on LHDs. This burden has been disproportionately experienced by LHD HNP staff since there is flexibility in the scope of

HNP work which allows staff to be re-assigned to assist with the pandemic. Although the pandemic started in March 2020, it continues to have a tremendous and ongoing impact on LHD operations. Through at least April 2021, LHDs were all hands on deck responding to COVID-19 including assisting at testing and vaccination clinics, contact tracing, and responding to complaints of facilities not complying with COVID-19 restrictions. Many LHDs did not return to routine work until the summer of 2021 and even then, staff were limited in their ability to conduct routine environmental work due to the ongoing COVID-19 response.

Audit Findings and Recommendations (Contract Goals)

The Report includes repeated claims that one-year asthma visits are a requirement of the program during the audit period. It is the Department's position that this contention is not factual, and all references to one-year in home asthma visits as a required activity should be removed from the report. The 2013 RFA, on which all contracts in the audit period were based states (pg. 8) 'In addition, asthma follow-up visits should be made to homes with a person with asthma between eleven and thirteen months after initial interview.' The Department intended this statement to create a best practice recommendation, rather than a requirement, where the word 'must', or 'shall' would have been used as it is elsewhere in the RFA to specify requirements.

State Comptroller's Comment 9 – Attachment A-1, Part B of each LHD contract we reviewed states that each LHD must conduct three types of home visits: initial visits, 90-day revisits, and 1-year follow-up visits to individuals with asthma. It is our conclusion that 1-year follow-up visits are a requirement of the program.

It should be noted that the Department supports a requirement for one year asthma follow-up visits and, in the most recently issued (2019) RFA, added a clear requirement for one-year asthma home visits and the program tools to capture data associated with this new requirement are being developed. The 2019 RFA was executed and contracts effective as of 4/1/22.

State Comptroller's Comment 10 – We are pleased to see the Department supports this requirement and added it clearly in contracts effective April 1, 2022.

The Department recognizes that completion of a 90-day revisit is required for 25% of initial visits, and that as outlined in the Report, several grantees fell below that goal. The Department disagrees, however, with the implication that without ensuring that these goals are met there is diminished accountability for the LHDs to ensure that as many people with asthma as possible get the assistance they need. Several of the cited LHDs that fell below the goal of 25% barely missed the goal. Of the 11 LHDs mentioned, 4 performed 90-day revisits for greater than 20% of initial visits. While it is impossible to deny that goals were not always met, it is the opinion of the Department that these discrepancies do not significantly impact contract performance, nor are they indicative of a lack of oversight.

State Comptroller's Comment 11 – Without meeting the 90-day requirement, the Department is not fulfilling its oversight responsibility.

Audit Findings and Recommendations (Program Evaluation)

As the Comptroller's office is aware, the Department has undertaken three large scale evaluations of HNP during the audit period. These evaluations were completed in cooperation

with the US Centers for Disease Control and with the National Center for Healthy Housing. These efforts exhibit exceptional programmatic outcomes for program participants, and notable cost benefits for the larger community. The full results of those efforts are posted on the Department's public website and can be found at https://www.health.ny.gov/environmental/indoors/healthy_neighborhoods/.

The evaluation was also published by the American Public Health Association as well as in several asthma-specific publications. It is not clear to the Department the reasons for not considering these efforts in the evaluation section of the Report. The department requests that these efforts be considered and integrated into the Report.

State Comptroller's Comment 12 – The Department is not completing evaluations of the LHDs, or the HNP, as outlined in its contracts. Moreover, the evaluation the Department refers to was performed in January 2017 and uses data from 2007–2011. Based on the age of the evaluation and its data, a more current evaluation will better assess program effectiveness.

In response to the recommendation that 'The Department should use the data that is readily available via the Dashboard to assess aspects of the HNP', it is important to point out that county level data may not be indicative of HNP activity in specific target areas of a particular county. While the numbers provided in the Report may indicate HNP success, it would be misleading to imply that county-wide statistics are related to HNP work in certain zip codes. The Report rationalizes the value of these data comparisons to 'help the Department make program improvements and determine whether additional LHDs could benefit from the HNP.' This statement illustrates a misunderstanding of the funding methodology used for HNP, as awards are dependent on a competitive RFA process.

State Comptroller's Comment 13 – The Department's mission is to protect, improve, and promote the health, productivity, and well-being of all New Yorkers. The Department considers the HNP a success and, as such, should consider ways to encourage other LHDs to participate in order to reach more New Yorkers who could benefit from the HNP.

The Department recognizes the value of HNP and acknowledges that all communities could benefit from the program. The funding structure, however, is not such that Department evaluation of statewide need is taken into consideration when awarding funds.

The Report states that while use of safety products and improvement of conditions are monitored at the 90-day visits, they should again be evaluated at the one-year revisit and that for this reason it is 'imperative that The Department work with LHDs to improve their revisit rates and perform more one-year follow-up visits to individuals with asthma'. It is the Department's opinion, based on years of expertise within NYSDOH HNP, that 90 days is an adequate period in which to evaluate the efficacy of both the asthma related and other housing related interventions delivered at the initial visit.

State Comptroller's Comment 14 – The Department's response is confusing. The Department previously noted that contracts effective April 1, 2022 will require a 1-year follow-up visit (see page 25 of the report). While the Department diminishes the necessity of the 1-year revisit, it now requires it. Please see Comment 10.

Audit Findings and Recommendations (Data Dashboard)

In the preliminary findings provided to the Department in November 2021, there was the following mention of the Asthma Dashboard which the Department found to be accurate:

The Department's mission is to protect, improve, and promote the health, productivity, and well-being of all New Yorkers. Their vision is that New Yorkers will be the healthiest people in the world--living in communities that promote health, are protected from health threats, and have access to quality, evidence-based, cost-effective health services. Their values are dedication to the public good, innovation, excellence, integrity, teamwork, and efficiency. The Department provides various resources for asthma through their Asthma Control Program (ACP), including general information, statistical information, asthma resources and publications, and an asthma action plan and information materials. The Department provides information related to indoor air quality, such as hospitalization and emergency department visits throughout New York State, through their Asthma Dashboard (Dashboard)and in-home assessments and interventions through their Healthy Neighborhood Program (Neighborhoods). In addition, the Department works with New York State Energy Research and Development Authority (NYSERDA) to deliver their Healthy Homes Program (Homes) to households in targeted regions in New York State.

*The Dashboard tracks asthma statistics and is a key resource for assessing asthma burdens and tracking intervention progress in NYS. Information presented in the Dashboard is designed to help public health programs, policy makers, and other health care providers recognize the scope of the problem, design and implement solutions, and evaluate impacts in reducing the asthma burden in NYS. The dashboard includes 40 asthma-related indicators for asthma prevalence, emergency department visits, hospital discharges, and mortality, and Medicaid and Child Health Plus databases. Asthma Emergency Department Visits and Hospitalizations data are generated from the **Statewide Planning and Research Cooperative System (**SPARCS**)**. This database contains information submitted by all hospital-based ambulatory surgery services and all other facilities providing ambulatory surgery services.*

Regarding the draft **Report 2020-S-59 May 2022**, there were significant updates to the description of the Asthma Dashboard that included several inaccuracies on pages 3 and 8 necessitating a response from the Department. **Due to the inaccuracies, the Department requested that OSC remove these paragraphs from the report.**

1. Under Key Findings, **bullet 3 on page 2 regarding the years of asthma data presented on the dashboard is inaccurate**. This inaccurate information is repeated in the last paragraph on page 8 of the report.

   "Separate from the HNP, the Department has a public-facing Asthma Dashboard (Dashboard), which, according to the Department, is updated annually. However, the Dashboard that was publicly available during the course of our fieldwork was significantly outdated – with data on emergency department visits, hospitalizations, and deaths (asthma indicators) from 2012–2014 and asthma prevalence data as of 2016. The Department indicated that it was unable to update the Dashboard due to the COVID-19 pandemic;

however, the majority of the data, such as the asthma indicators, hadn't been updated in the 6 years prior to the onset of the pandemic. Without current data, the Department, public health programs, policy makers, and other health care providers cannot adequately recognize the scope of the asthma problem, design and implement solutions, and evaluate impacts in reducing the levels of asthma in the State."

The bullet states incorrect years for the available data, stating that the most recent years of data for ED visits, hospitalizations, and mortality were 2012-2014. This is not accurate. During the 2018 asthma data update, which was available to all users, including the audit team, as of September 2018, the most recent data for mortality were 2014-2016, not 2012-2014 as stated in the report. 2014-2016 mortality data was presented on the dashboard with the 2018 launch. Screenshots taken at the time were provided to OSC to demonstrate that these data would have been present during their review.

The most recent complete year for ED visits and hospitalization data was also 2016. However, there was international coding change from ICD-9-CM to ICD-10-CM in October 2015 that impacted ED and hospitalization data. As a result, complete data years for 2014 and prior cannot be presented as a continuous trend with ICD-10-CM data, of which the first complete year began with 2016. For the dashboard, combining three years of data is necessary to produce county level visualizations for all the available age breakdowns, as well as subcounty breakdowns. As a result, when the dashboard was launched in 2018, three-year combined using ICD-10-CM codes would not have been available. During the 2018 update, 2016 was the most recent complete year with ICD-10-CM coding. As such, 2016 ED and hospitalization data were displayed on another link from the main surveillance page, while dashboard visualizations presented 2012-2014 data. The dashboard, while displaying 2012-2014 data, clearly linked to the location of the 2016 data for public access. Screenshots of this link and other location were also provided to OSC. When the three-year combined data (2016-2018) became available, these data and visualizations were incorporated into the dashboard during the 2021 update. It is possible that the individual conducting the audit did not access the correct location for the 2016 information and thus recorded inaccurately that it was not available.

State Comptroller's Comment 15 – The 2021 update referenced here occurred after we completed our audit work and issued our preliminary findings to the Department.

We met with Department officials, at their request, after our draft report was issued to receive updated information and reflect it in our final report.

We revised our final report to reflect the updated mortality data (2014–2016).

A screenshot of a 2016 link to the Department's Asthma Information in New York State data was provided to us; however, the screenshot was from a point in time that the audit team could not verify. The link no longer exists on the Dashboard, and our analysis used the County Dashboard that displayed 2012–2014 data. As of July 2022, the Department's Asthma Information in New York State webpage still presents data from 2016.

2. **Bullet 3 on page 2** also incorrectly notes that data **had not been updated 6 years prior** to the pandemic. This inaccurate information is repeated in the last paragraph on page 8 of the report.

   During the audit period (April 2014-January 2021), asthma surveillance data was updated regularly. The main asthma surveillance page (https://health.ny.gov/statistics/ny_asthma) was updated with the most recent and most complete year of data available for asthma-related Emergency Department (ED) visits, hospitalizations, mortality, prevalence, patient quality measures, and Medicaid service utilization in 2014, 2015, 2016, 2017, and 2018. The Dashboard was first launched in September 2018, which was about one and a half years prior to the pandemic. An update was planned and prepared in early 2020 but was delayed due to COVID-19. The Dashboard has since been updated in 2021 and most recently in March of 2022 with the most completed data available (2019 for ED visits, hospitalizations, and deaths).

   The Department met with OSC and consistently explained that it takes time for hospitals and local registrars to submit complete data to the Department. Additionally, the Department has to conduct extensive analysis to assess data completeness and quality. Programs can then analyze data, produce reports and visualizations, and make available publicly. As a result, the most recent year of data available on the Asthma Dashboard may be from prior years. Even with this explanation, OSC staff does not seem to understand the reality of data lags.

   State Comptroller's Comment 16 – While we understand the nature of data lags and do not expect current data to be immediately available, the fact still remains that the information on the dashboard we viewed in January 2021 was from as far back as 2014, which is 6 years prior to the onset of the pandemic.

   Recommendations with Responses

   1) Improve oversight of program performance, such as developing policies and procedures, and assess whether LHD services are provided in the target areas identified.

      We will review and formalize our policies and procedures related to oversight of contract performance. Current policies and procedures and tracking sheets were shared. A procedure for identifying program performance with respect to target areas will be developed.

   2) Collect missing LHD annual reports, cost benefit analyses, and quarterly reports, where feasible, and ensure all reports are collected going forward.

      The older missing reports will be difficult to replace as they were only collected in paper format. We have, however, reached out to the LHDs with missing reports mentioned in the Report to investigate whether copies can be obtained. We will review and formalize our policies and procedures related to oversight of contract reporting performance.

3) Ensure all LHDs are performing the minimum number of revisits per their HNP contracts.

We will update our contract management policies to specifically address monitoring revisit rates.

4) Ensure all LHDs are conducting the one-year asthma follow-up visits per their HNP contract and are accurately reporting the visits using the E-Form system.

As described above, one year asthma revisits were not a contract requirement during the audit period. In 2019, prior to this audit report, the Department independently undertook efforts to include a requirement for one-year asthma revisits for subsequent contracts.

5) Update the Asthma Dashboard annually, according to Department policy, and use the data to assess the impact of the HNP on the asthma burden in the state.

Addressed in the above Data Dashboard and Healthy Neighborhoods Program Evaluation sections.

6) Develop an evaluation to determine the overall effectiveness of the HNP and performance of LHDs.

We will review our current evaluation procedures to determine if additional evaluation beyond our standard re-visit program would be effective. If resources allow, we will evaluate our ability to recreate our 2017 program evaluation efforts. Procedures to improve oversight of the LHD field activities will be developed.

Contributors to Report

Executive Team

Andrea C. Miller - *Executive Deputy Comptroller*

Tina Kim - *Deputy Comptroller*

Ken Shulman - *Assistant Comptroller*

Audit Team

Brian Reilly, CFE, CGFM - *Audit Director*

Daniel Towle - *Audit Manager*

Peter Carroll - *Audit Supervisor*

Amanda Dare - *Examiner-in-Charge*

Jenna Agars, CPA - *Senior Examiner*

Jeffrey Herrmann - *Mapping Analyst*

Kelly Traynor - *Senior Examiner*

Contact Information
(518) 474-3271
StateGovernmentAccountability@osc.ny.gov
Office of the New York State Comptroller
Division of State Government Accountability
110 State Street, 11th Floor
Albany, NY 12236

Like us on Facebook at facebook.com/nyscomptroller
Follow us on Twitter @nyscomptroller
For more audits or information, please visit: www.osc.state.ny.us/audits/index.htm