

**Breathing Science is Life**.

Community Health Needs Assessment 2025

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# **Letter from President & CEO**

June 30, 2025

Dear Community Member,

On behalf of National Jewish Health, we are pleased to present our 2025 Community Health Needs Assessment (CHNA) Report. As the leading respiratory hospital in the nation and a trusted provider of specialized care, research and education, National Jewish Health remains deeply committed to understanding and addressing the health needs of the communities we serve.

We opened our doors in 1899 as a free hospital for homeless tuberculosis patients. For the first 70 years of our existence, we did not charge for care that was provided to thousands of adults and children. Our commitment to serving our communities continues to be a foundational concept of our existence. For example, the Morgridge Academy, a tuition-free kindergarten through eighth grade (K-8) school for about 90 chronically ill students, serves families across Denver. We have provided many millions of dollars in charity care over the years and serve all patients on a first-come, first-served basis. We have no quotas or limits on Medicaid patients. Our robust research enterprise makes discoveries and helps deliver new treatments and medications that benefit both our nearby and our national communities.

This CHNA report summarizes the careful research, community engagement and collaboration that we practice in our community regularly. Through surveys, focus groups, public health analysis, and conversations with community leaders and partner organizations, we have identified pressing health challenges facing our community today, including issues such as access to multispecialty care, chronic respiratory conditions for children and adults and medical education that can so profoundly impact health outcomes.

At National Jewish Health, we believe that health is shaped not only in hospitals and clinics, but also in homes, schools, workplaces and neighborhoods. That's why this report serves as a road map for collective action. The findings and priorities outlined in this assessment will guide our initiatives, partnerships and programs over the next three years.

We are grateful to everyone who contributed their time, experiences and insights as we conducted this assessment process. Your voices are essential to creating a healthier, more equitable future. As we move forward together, we invite you to join us in transforming data into meaningful change. We welcome your comments and feedback to help us better serve our community.

Sincerely,

Muha Sal

Michael Salem, MD President & CEO

# Background and Purpose of Community Health Needs Assessment

The passage of the Patient Protection and Affordable Care Act (ACA) requires tax-exempt hospitals to conduct Community Health Needs Assessments (CHNA) every three years and to adopt Implementation Strategies to meet the priority health needs identified through the assessment. A CHNA identifies unmet health needs in the hospital's service area, provides information to select priorities for action and target geographical areas, and serves as the basis for community benefit programs. This assessment incorporates components of primary data collection and secondary data analysis that focus on the health and social needs of people living in the service area.

To submit comments on the 2025 CHNA Report, please email Feedback@NJHealth.org

### **National Jewish Health Mission**

Our mission, since 1899, is to heal, to discover, and to educate as a preeminent health care institution. We serve by providing the best integrated and innovative care for patients and their families; by understanding and finding cures for the diseases we research; and, by educating and training the next generation of health care professionals to be leaders in medicine and science.

#### **Service Area**

The National Jewish Health main campus is located less than three miles from downtown Denver, at the corner of Colorado Boulevard and Colfax Avenue, at 1400 Jackson St., Denver, Colorado. National Jewish Health operates with a primarily outpatient model of care. Licensed for 46 inpatient beds, we maintain separate inpatient units for adults and children. About 75% of our outpatients come from Denver and the surrounding counties with the rest coming from across the region and the country with some international patients. In addition to outpatient and inpatient care, National Jewish Health houses and operates the Morgridge Academy on its main Denver campus. A Colorado Department of Education approved facility school, Morgridge Academy was designed to meet the medical and academic needs of children who have chronic diseases.

# **Executive Summary**

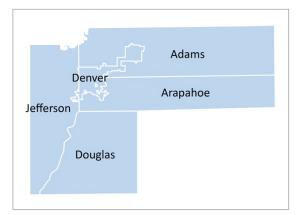
## Introduction

National Jewish Health is an academic, multispecialty care hospital headquartered in Denver, Colorado. It is the only facility in the world dedicated exclusively to innovative medical research and treatment of patients with heart, lung, immune and related disorders. Founded in 1899 to treat indigent tuberculosis patients, National Jewish Health continues to serve patients from Colorado and across the nation by providing integrated care and groundbreaking research to improve lives.

This Community Health Needs Assessment (CHNA) identifies health needs in our community and describes how National Jewish Health can use its unique capabilities to help address those needs.

# **Community Definition**

National Jewish Health sees patients from around the greater metro area and across the nation and the world. Most Colorado patients, about 75%, come from Denver, the surrounding counties and across Colorado. For the purposes of this assessment, we have defined our community as Denver County and four contiguous counties — Adams, Arapahoe, Jefferson and Douglas counties — in which a majority of our local patients live. As a tertiary care, specialty hospital focused on respiratory health and related specialties, we have further defined our community as those who will benefit from diagnosis, treatment and prevention of respiratory and closely related diseases.



## **Methodology**

In order to assess our community's health needs, National Jewish Health scrutinized published health data, held community input sessions, surveyed community health providers and consulted with our own faculty, who have extensive contacts and experience within the community.

# **Identified Health Needs**

Our research identified community health needs that we group into two categories: respiratory health and social and population health.

**Respiratory Health.** Asthma and chronic obstructive pulmonary disease (COPD) have long been the two most burdensome respiratory diseases in our community. The onset of the COVID-19 pandemic in 2020 and the rise of people suffering from what is referred to as long COVID became a key concern for several years. Long COVID continues to be a concern for respiratory related illnesses. We also know that heart care is closely intertwined in respiratory health and is a key part of the specialty care that is needed. Most of these illnesses affect adults and children.

**Social and Population Health.** Tobacco use, air pollution, education for patients and providers, access to specialty care and cost of medications and care continue to be the most significant social and behavioral health needs in our community.

### **Selected Areas of Focus**

Based on a combination of community need and National Jewish Health capabilities, the following areas will be the primary focus of additional efforts to address community health needs. Specific strategies and initiatives to address these areas of focus will be included in the Community Health Implementation Plan, which will be available in November 2025.

Access to Specialty Care. The high rates of emergency care and hospitalizations for asthma and COPD, high levels of air pollution, an aging population and availability to specialized care among Medicare and Medicaid populations indicate that respiratory patients in our community need better access to the knowledge and expertise of National Jewish Health.

**Pediatric Respiratory Health.** Rates of asthma, and especially rates of emergency room visits and hospitalizations among children living in the National Jewish Health community are generally higher than the state average. Along with universal mentions of concern about asthma, there is concern about food allergy, eczema, sleep and aerodigestive disorders, affordability and health literacy, particularly among pediatric community health providers, which suggests that these are areas of unmet community health needs.

**Education.** Providers and patients could benefit significantly from better understanding about respiratory health and ways to protect it, from educating physicians about handling difficult respiratory cases to educating patients about managing their disease and reducing exposure to respiratory irritants as well as to expanding our understanding and treatment of these diseases through research.

This report is publicly available at the following link: <u>https://www.nationaljewish.org/about/community-health-needs-assessment/chna2025</u>

Board approval for the 2025 National Jewish Health CHNA was June 25, 2025.

# **2025 Community Health Needs Assessment**

# Introduction

National Jewish Health is an academic, specialty care hospital providing research, education and patient care. It is the only facility in the world dedicated exclusively to groundbreaking medical research and treatment of patients with respiratory, cardiac, immune and related disorders. Patients and families come to National Jewish Health from around the world to receive cutting-edge, comprehensive and coordinated care.

National Jewish Health provides community benefit through its patient care, community outreach, patient and physician education and research. All patients, including Medicaid patients, are served on a first-come, first-served basis, with no quotas or limits. National Jewish Health also operates the Morgridge Academy, a free K-8 school for students with chronic illnesses and medical conditions that keep them out of regular school programs. Morgridge Academy is the only school of its kind located on a medical campus. See <u>Appendix A</u> for a more extensive listing of community benefit activities conducted by National Jewish Health.

With 18 practice locations across Colorado, National Jewish Health serves patients throughout the state. As a tertiary care, specialty center, National Jewish Health receives patient referrals from around the nation, many with conditions so difficult and baffling they could not be successfully treated anywhere else. In Denver, National Jewish Health has a joint operating agreement with Saint Joseph Hospital, a part of Intermountain Health. This relationship enables doctors from National Jewish Health to provide continuity of care for their own patients when they require hospitalization as well as caring for all inpatients using that hospital. This relationship also taps the expertise of the pulmonologists, cardiologists and critical care specialists from National Jewish Health to serve all inpatients at Saint Joseph Hospital.

In addition, National Jewish Health has introduced a Respiratory Institute model of care and research with partners across the country. This model seeks to elevate care and create a network for research through relationships with leading institutions around the country, including Mount Sinai in New York City and Jefferson Health in Philadelphia.

National Jewish Health faculty and staff conduct extensive basic, translational and clinical research that informs local and national communities on a wide variety of respiratory, immune and related diseases, laying the groundwork for discovery and improvement of care. National Jewish Health receives about \$59.3 million in grant revenue annually, primarily from the federal government, especially the National Institutes of Health (NIH), and is in the top 6% of institutions in the country funded by the NIH (in absolute dollars). This is a tremendous achievement for a specialty hospital/research center. On average, National Jewish Health invests another \$20 million of its own funds each year in research.

Educating patients and health care professionals is a central element of the National Jewish Health mission. From educating patients about how to better take care of themselves and manage their conditions, to facultyled trainings for medical students, postgraduate fellows, education is a primary focus. Additionally, National Jewish Health has a fully developed Professional Education Department that organizes seminars, webinars and hands-on workshops around the country to help health care professionals learn about respiratory-related illnesses and ultimately lead to better patient care.

# **Review of Progress 2022 to 2025**

In the 2022 CHNA report, National Jewish Health identified four health needs that focused efforts to improve community health:

- 1) Pediatric Asthma
- 2) Education
- 3) Access to Specialty Care
- 4) COVID-19 and Long COVID.

National Jewish Health made progress on meeting these identified needs but also adjusted the focus in some areas as conditions warranted. For example, in May 2023, the World Health Organization declared an end to the COVID-19 pandemic and around the same time our focus shifted from short-term care of the virus to emphasizing research and care of those suffering from the impact of long COVID, a disease that still impacts children and adults.

Below is an overview of efforts and progress made in the community areas of focus identified in 2022.

### **Pediatric Asthma**

In the 2022 CHNA report, we identified that access to asthma care is a large health need among children living in our community. Lack of consistent asthma care leads to asthma-related emergency room visits and asthma hospitalizations, which indicate uncontrolled disease. If left untreated, asthma can impact lung development, increase risk of severe exacerbations, reduce quality of life and increase risk of chronic lung disease and other health problems. Our ongoing work has continued to address these issues by expanding care and research for children with asthma, training health care providers to recognize and treat asthma, and continuing to address long COVID, which can exacerbate asthma.

**Expanding Care and Research for Children with Asthma.** Research and clinic experiences have shown that many families don't completely understand asthma or how asthma medications help keep the illness controlled. In addition, children may have different needs from adults in how asthma is treated, and each individual may have different contributing factors to how the disease is expressed.

To help meet the growing need for asthma care, the Department of Pediatrics at National Jewish Health increased clinical staff 40%. New physicians and advanced practice providers were added in allergy/immunology, pulmonology, sleep medicine and behavioral health. These additions increased capacity to diagnose and treat asthma patients. Additional pediatric pulmonary physicians have been able to care for more infants born in local pediatric intensive care units and neonatal intensive care units where lung issues range from mild to severe conditions. We also provided community physicians with a 24/7 nurse and physician resource phone line for questions.

Asthma is one of the most common chronic or long-term diseases in children. In Colorado, 6.4% of children have asthma, but the prevalence among Black children is higher at 9.2% and is 7.8% among Hispanic children. It accounts for 13 million missed school days each year and is the third leading cause of childhood hospitalizations nationwide. For these reasons, and more, **pediatric researchers** at National Jewish Health are investigating the root causes of asthma by studying children from birth through early childhood to learn how genes and viral infections affect respiratory disease. They also are investigating causes of asthma at the cellular level,

identifying the characteristics and patterns of asthma, how to improve asthma treatments and how to target different types of asthma with precision medicine.

The National Jewish Health for Kids <u>Asthma Tune Up Program</u> helps children and their parents bring asthma under control and improve wellness. This intensive, hands-on program utilizes patient education to increase asthma knowledge, correct inhaler technique and instill asthma self-management skills. When needed, the program addresses obesity, which complicates asthma by restricting airflow and diminishing response to medication. This program helps children change behaviors that lead to healthy lifestyle choices and ultimately improve asthma control. The Asthma Tune Up Program has successfully helped many children and their families make healthy lifestyle changes, improve asthma symptoms and become excellent asthma self-managers. With this program, we have seen improvement in treatment adherence and reduced asthma-related emergency department visits and hospitalizations. The long-standing program is currently finalizing an agreement with a new inhaler technology partner to continue this important work.

**National Jewish Health** researchers teamed up with school staff at the organization's **Morgridge Academy** to enable the students to self-manage their asthma. The program determined the most effective intervention to help these students address their asthma when they're away from school. It created focus groups of students and caregivers to decide which interventions to implement and select students who will act as peer leaders and join the study team.

Morgridge Academy students spent six weeks investigating health care equity and presented at a medical style poster presentation event. They developed a myriad of solutions to move past the barriers to health care for underserved communities. Those solutions will now be vetted by adult and student focus groups.

**Training Providers.** Asthma can often be difficult to diagnose and easy to misdiagnose due to a lack of experience and equipment. The **National Jewish Health** *for Kids* Asthma Toolkit Bootcamp program and other outreach activities are focused on advanced training for general practitioners in Colorado to better diagnose and manage pediatric and adult asthma in communities that are under-resourced. Training programs have been taken to Adams, Alamosa, Archuleta, Baca, Bent, Chaffee, Cheyenne, Conejos, Costilla, Crowley, Custer, Delta, Elbert, El Paso, Fremont, Huerfano, Kiowa, Lake, La Plata, Las Animas, Lincoln, Logan, Kit Carson, Mesa, Mineral, Montezuma, Montrose, Morgan, Otero, Park, Phillips, Prowers, Pueblo, Rio Grande, Saguache, Teller, Washington, Weld and Yuma counties in Colorado as well as provided in the Denver area. Published outcomes demonstrated that this program:

- Nearly doubled the number of pediatric patients receiving an asthma action plan (a key tool in asthma self-management) after providers completed the training.
- About 90% received asthma severity assessments that they would not have received before this training helped practices change their care methods.
- These communities had remarkable outcomes, including a 10% decrease in emergency department visits, a 35% drop in hospital admissions and nearly 30% fewer corticosteroids prescribed.

In recent years, the program has expanded to the Navajo nation where asthma rates are two to three times higher than in the general population. Community advisory committees were created to provide guidance and help form working partnerships with school systems, the Navajo Health Department, chapter houses and any other interested community groups.

**Long COVID in Pediatrics.** The COVID-19 pandemic brought new health concerns to pediatric patients with asthma and became a focus for the pediatric asthma program over the past five years. Even though the pandemic ended in 2023, there were thousands of children who continued to suffer from long lasting effects of the virus. Special clinics at National Jewish Health continue to care for children with long-term challenges from what is known as long COVID. During the pandemic, National Jewish Health saw the need to provide ongoing care for these patients and their unique symptoms and quickly developed both adult and pediatric **Respiratory Recovery Clinics**, now operating as the <u>Center for Post-COVID Care and Recovery</u>. This program helps care for pediatric and adult patients with functional impairment and persistent symptoms, helping them return to their usual state of health and usual function. The Center continues to serve both existing National Jewish Health patients and the broader community. It also focuses on research to help increase understanding of the unique difficulties that many patients face when recovering from COVID.

## **Education**

**Morgridge Academy.** National Jewish Health operates the <u>Morgridge Academy</u>, a free K-8 school for children who have chronic diseases that cause them to miss school and impede their ability to attend traditional school. Most of the students suffer from asthma or a variety of other respiratory, allergic or immune-related diseases. The vast majority of students come from low-income families and are eligible for free and reduced-cost lunch. By addressing immediate health needs and providing a safe, nurturing environment for learning, the Morgridge Academy delivers an education that greatly improves not only their health, but also economic and social opportunities for these children. In addition, nurses and staff teach both students and their families how to care for themselves, avoid behaviors that worsen their disease and manage exacerbations of disease, thus reducing the burden of disease. Test scores, scholastic abilities and grades have improved and missed school days have dramatically reduced.

**Provider Education**. The Office of Professional Education regularly develops multi-city series of educational seminars at which our expert physicians educate health professionals on current topics concerning the diseases we treat, ranging from the safety and efficacy of inhaled corticosteroids in asthma, emerging medications in asthma and current best practices in care of patients with interstitial lung disease. Seminars are now offered in virtual, online and in-person formats to make it easier for providers to attend. Online continuing medical education courses are also available on asthma, atopic dermatitis, chronic cough, nontuberculous mycobacteria, oncology and other areas of expertise.

Academic Training. National Jewish Health continually provides an active training program for medical students, interns, residents and postgraduate fellows in allergy, immunology, environmental and occupational health sciences, pulmonology, pediatrics and more. At any given time, about 70 residents and fellows are receiving training at National Jewish Health for future careers in medicine and science.

A new Respiratory Therapy Training Program was launched in 2023 in collaboration with Thomas Jefferson University's College of Health Professions in Philadelphia to address the national shortage of health care professionals. Educational tracks within the program are focused on getting new students into the respiratory therapy career and advancing the career of those already in the profession through advanced degree education and training. By expanding the pool of trained therapists, this program is a long-term investment in improved care both locally and across the county.

# Access to Multispecialty Care

**Chronic Care Management.** In 2024, we formally launched National Jewish Health Chronic Care Management<sup>™</sup>, a new program enabling us to help our patients and our staff better manage chronic disease. By monitoring a patient's health in between clinic visits and using real-time data, we can achieve improved outcomes and intervene with patients before the need for hospitalization.

**E-consult Services.** National Jewish Health participates in a statewide program to assist community providers and primary care physicians in the treatment of their patients with chronic illness. Our experts are available to electronically answer questions and provide guidance on the treatment of Medicaid patients. This is a free service offered throughout the state of Colorado.

**Former U.S. Department of Energy (DOE) Workers.** Since 2005, National Jewish Health, in partnership with the National Supplemental Screening Program, has provided free supplemental medical screenings for former U.S. Department of Energy workers who may have been exposed to hazardous substances or radiation. An additional program helps us provide services for retired construction workers from the Atomic Energy Commission and Department of Energy sites associated with historic nuclear weapons production. The majority of the participants seen at National Jewish Health were employed at Rocky Flats Nuclear Arsenal in Arvada, Colorado, and reside locally. The objective of these screenings is to identify work-related health conditions and provide recommendations that can lead to treatment. To date, we have provided more than 1,500 screenings and continue collaboration with our partners to publish aggregate data on the findings of these medical surveillance programs. Published findings both assist former workers by identifying health effects caused by past occupational exposures and help those still currently working at DOE sites by promoting lower exposures and safer work practices.

**Current Worker Medical Surveillance and Respirator Fit Testing.** For over 15 years, our Division of Environmental and Occupational Health Sciences team is one of the few organizations in the United States that offers full-service medical surveillance and respiratory protection programs. All of our services are specifically tailored to meet the unique needs of each of the companies and workers in our community while ensuring compliance with all requirements of the Occupational Safety and Health Administration and other federal, state, and local regulations. Services for these community members have included medical clearance exams, respirator fit testing, clinical care, pulmonary function tests, worker training and respiratory protection consultations. These workers are performing tasks that have some associated exposure hazard, and their employer is required to provide them with annual medical surveillance, including respirator fit testing, to ensure they remain safe on the job. National Jewish Health staff perform approximately 180 current worker exams per year.

**Immediate Care to Meet Emerging, Urgent Needs.** The <u>Immediate Care Clinic</u>, an urgent-care clinic approach available to our patients and community members, was launched to meet community health needs that became apparent during the COVID pandemic. The full-service clinic provides care for adults and children with unexpected illnesses and minor injuries. Last year, the Immediate Care Clinic added a pediatric nurse triage line to help parents with urgent issues with breathing or allergic conditions.

**Miners Clinics.** Over the past 23 years, National Jewish Health has screened more than 2,500 current and retired miners in Colorado and surrounding states who are at risk for occupational lung diseases, including silicosis, COPD, bronchitis, lung cancer and black lung disease. The Miners Clinic is a screening program that

provides early detection through spirometry, X-ray with B-reading for dust disease, oximetry and other tests. The medical services are delivered in a way to maximize continuity of care with each miner's local provider and ensures appropriate follow-up and treatment.

**The Black Lung Clinic.** This clinic offers appointments year-round at National Jewish Health in Denver. It also holds annual outreach and screening clinics in partnership with local hospitals in Craig, Montrose and Pueblo, Colorado, as well as Page, Arizona and Casper, Wyoming.

**Patient Education Events.** Each year our experts host and support a number of events that serve to educate patients and families suffering from chronic disease. In the past several years, National Jewish Health has hosted education events on immune deficiency, tuberculosis, nontuberculous mycobacterial lung disease, food allergy and air pollution. Our experts also routinely speak at patient education events and conferences across the country.

**Telehealth.** National Jewish Health developed a robust, secure and sustainable telehealth program for patients who could not come for in-person visits and continued to perfect this model to be available for more people and extend care. At the peak of the pandemic, National Jewish Health physicians were seeing more than 750 patients per week via telehealth visits and, while in lower numbers, telehealth continues to be an important resource for Colorado patients now in 2025.

**The Radiation Exposure Screening and Education Program (RESEP) Clinics**. This program helps thousands of workers who were involved in the mining, milling and transporting uranium used to produce atomic weapons for the United States, and those who worked and lived downwind of the Nevada nuclear test site. It provides screening for diseases related to radiation exposure, referrals for patients needing further diagnostic or treatment procedures and help with documenting claims under the Radiation Exposure Compensation Act.

**Wellness and Prevention Outreach.** National Jewish Health places emphasis on research and treatment aimed at preventing disease before it starts. Each year, as part of the National Lung Cancer Screening Day campaign, we host a special Saturday screening event to promote awareness of CT screening for people at high risk for developing lung cancer. We have also participated in community events at Tepayac Community Health Center, the Center on Colfax, the Colorado Black Health Collaborative, and others to reach communities at high risk of lung cancer and provide education on the importance of lung cancer screening. The Denver Walk-with-a-Doc program is now in its 15<sup>th</sup> year. Launched and led by a National Jewish Health cardiologist, the program invites the public to monthly walks and health information sessions led by physicians and delivered in parks throughout Denver. The sessions are free and open to the public.

# **COVID-19 and Long COVID**

**COVID-19 Recovery.** Many COVID-19 patients continue to have persistent symptoms and ongoing functional impairment as they recover from the disease. National Jewish Health saw the need to provide ongoing care for these patients and their unique symptoms and quickly developed both adult and pediatric **Respiratory Recovery Clinics**, now operating as the <u>Center for Post-COVID Care and Recovery</u>. This program helps care for pediatric and adult patients with functional impairment and persistent symptoms, helping them return to their usual state of health and usual function. The clinics continue to serve both existing National Jewish Health patients and the broader community. The clinics also focus on research to help increase understanding of the unique difficulties that many patients face when recovering from COVID. **COVID-19 Research.** In addition to caring for patients, National Jewish Health researchers have continued to focus resources on understanding the SARS-CoV-2 virus, how it spreads, how to best detect it, how to treat COVID-19 disease and how the disease impacts lung health. This attention to COVID-19 and long COVID serves to better understand the impacts of the pandemic and learn ways to prevent and/or prepare for the next respiratory pandemic.

## **Other Activities**

National Jewish Health participates in numerous additional activities and programs that promote community health, ranging from community outreach programs to tobacco and vaping cessation and scientific research into pressing health issues. These activities are outlined in <u>Appendix A</u>.

# **Assessment Methodology**

In order to understand community health needs, National Jewish Health evaluated its progress for this report and collected quantitative and qualitative community health data. National Jewish Health assembled a multidisciplinary team from within the organization to review the qualitative data gathered from community input sessions and influencer surveys and to review quantitative data.

- Reviewed and analyzed public comments about 2022 Community Health Needs Assessment and Implementation Strategy.
- Focused definition of "community based" on where most of our patients live.
- Reviewed published data on community health, social determinants of health, including the Colorado Department of Public Health and Environment's Health Equity Map, County Health Rankings, U.S. Census data and other resources.
- Gathered community input.
  - Hosted Community Benefit Meetings in 2023, 2024 and 2025
  - Provided an annual online survey for community members to share input
  - Surveyed community health providers annually
  - Surveyed National Jewish Health experts annually
- Prioritized health needs in collaboration with National Jewish Health leadership and quality committees.
- Identified areas of focus based on community health needs and our ability as a specialized respiratory hospital to meet those needs. We will seek to address these areas with an Implementation Strategy, which will be discussed in the November 2025 Community Health Implementation Plan.

National Jewish Health will post its 2025 Community Health Needs Assessment and Implementation Strategy on the <u>National Jewish Health website</u>. No written comments were received in the 2025 online survey. The community provider survey yielded community health concerns including burdensome diseases such as asthma, aerodigestive disorders, COPD, hypoxemic respiratory failure, obstructive sleep apnea, pneumonia, sarcoidosis, pulmonary hypertension, pulmonary fibrosis, rheumatoid arthritis and other complex conditions. Additional concerns shared by community providers included the cost of care, medications and imaging; finding providers who accept Medicaid and uninsured patients; transportation difficulties some patients have getting to health care appointments; and education needs for patients and providers. The methods for soliciting and receiving public comment for the 2025 National Jewish Health Needs Assessment will be reviewed and improved.

# **Community Description**

As a specialty care hospital focused on respiratory and related diseases, with its main campus in Denver, Colorado, National Jewish Health defines its community according to two factors: geography and respiratory health.

**Geographic Community.** For the purpose of this Community Health Needs Assessment, National Jewish Health defines its community as residents of Denver, Adams, Arapahoe, Douglas and Jefferson counties.

Although, National Jewish Health sees patients from across Colorado, the United States and several foreign countries, its research also impacts the care of patients in the United States and beyond. Historically, the percentage of in-state patients was closer to 70%. During the pandemic that number increased due to curtailed travel from other states. Patients from all over Colorado and out of state are again increasing in number.

National Jewish Health Patient Count by State 2024					
State	<b>Outpatient Count</b>				
СО	55,667	86.7%			
WY	903	1.4%			
NM	774	1.2%			
ТХ	638	1.0%			
CA	518	.8%			
KS	485	.8%			
NE	346	.5%			
AZ	318	.5%			
42 states, together accounting for 5.1% of all patients					

In order to define a community that National Jewish Health could significantly impact with an Implementation Strategy, records of patients' home locations were consulted.

National Jewish Health 2024 Patient Count by Colorado County					
County Patient Count Percent of CO Patien					
Denver	13,689	24.6%			
Arapahoe	8,957	16.1%			
Jefferson	8,936	16.1%			
Adams	6,527	11.7%			
Douglas	4,655	8.4%			

The main National Jewish Health campus is located in central Denver at 1400 Jackson St., in Denver County. Within Colorado, Denver County and the four contiguous counties (Adams, Arapahoe, Douglas and Jefferson) account for about 75% of all Colorado patients seen at National Jewish Health. As indicated, these numbers have shifted somewhat as the pandemic caused people to cease to travel for care but represent a consistent geography for the largest quantity of patients. Combined, these five counties have a population of 2,911,438, and 42,764 of them came to National Jewish Health for care in FY2024.

**Respiratory Health.** National Jewish Health opened its doors in 1899 to treat patients with tuberculosis, an epidemic respiratory disease at that time. We have focused on respiratory and related diseases for our entire 126-year history. We have been named a top hospital in Pulmonary by *U.S. News & World Report* every year that pulmonology has been evaluated. The community we serve includes respiratory patients and potential respiratory patients who we can help by preventing, diagnosing, managing and treating respiratory disease.

# Secondary Data Collection – Published Public Health Information

Demographics and Social & Behavioral Health						
	Colorado	Adams	Arapahoe	Denver	Douglas	Jefferson
Population						
Total	5,957,493	542,973	666,918	729,019	393,995	578,533
Percent 0-18	20.7	24.3	22.2	17.7	22.9	18.0
Percent 65+	16.0	11.6	14.9	12.8	14.5	18.4
<b><u>Race/ethnicity</u></b> (percent)						
Non-Hispanic White	66.1	45.7	56.2	55.4	78.3	76.5
Hispanic	22.7	43.2	22.0	27.9	10.4	16.2
Non-Hispanic Black	4.8	4.5	12.0	10.0	2.0	1.7
Other	6.4	6.6	9.8	6.7	9.3	5.6
Education (percent)						
Less than high school	7.2	15.0	8.0	8.6	2.0	4.5
High school graduate	92.8	85.0	92.0	91.4	98.0	95.5
HS Graduation rate	82.0	81.0	83.0	76	89	85.0
Bachelor's Degree or higher	44.7	28.0	45.7	55.6	60.9	50.7
Income:						
Median	\$92,470	\$91,387	\$97,215	\$91,681	\$145,737	\$107,800
Per capita income	\$50,489	\$40,167	\$51,942	\$61,202	\$66,810	\$58,142
Percent of children in poverty	11.0	14.0	10.0	17.0	2.0	7.00
Percent of families at or below federal poverty level	9.3	9.7	10.1	10.5	3.7	7.4
Insurance (percent)						
Uninsured	9.0	13.0	10.0	11.0	4.0	7.0
Medicaid	24.3	29.64	24.77	29.50	8.87	16.86
Language (percent)						
Not proficient in English	3.0	5.0	4.0	4.0	1.0	1.0

Sources: County Health Ranking 2024, U.S. Census V2024, Colorado Department of Health Care Policy & Financing

Lower than state rate: No difference:						
	СО	Adams	Arapahoe	Denver	Douglas	Jefferson
Life Expectancy (years)	79.0	77.5	79.7	78.1	82.8	79.5
—Percent <u>Adult</u> <u>smoking</u>	12	15	13	13	9	13
-Percent <u>Adult</u> obesity	25	31	25	22	23	24
Percent Insufficient sleep	27	30	29	28	25	26
Air Pollution (Avg daily ppm, 2.5)	4.5	9.1	6.0	10.0	6.2	8.5

# **County Health Data**

Source: County Health Rankings & Roadmaps 2024

Lower than state rate: No difference:						
	Colorado	Adams	Arapahoe	Denver	Douglas	Jefferson
<u>Current Asthma</u> — Adults (%)	<u>10.4</u>	9.878	8.35	8.95	8.27	8.86
Current Asthma —Children (%)	<u>6.4</u>	11.1	13.1	12.6	12.2	12.8
Asthma ER Visits per 10,000 All ages	27.2	42.0	31.7	14.5	13.6	19.9
Pediatric Asthma ER Visits Ages 0-5-15 Per 10,000	51.2	79.4	63.9	77.9	25.9	41.3
Asthma Hospitalizations per 10,000 <u>All ages</u>	4.01	6.46	5.88	6.0	2.62	3.03
Ages 0-4 years old	22.31	29.99	30.15	39.53	21.17	20.72
Ages 5-14	12.99	12.99	17.50	20.20	5.74	7.12

# Asthma

Source: Colorado Department of Public Health and Environment 2023

Lower than state rate Higher than state rate: No difference:						
	Colorado	Adams	Arapahoe	Denver	Douglas	Jefferson
Adults (% with Disease)	5.5	5.0	4.9	4.6	3.7	4.7
ER Visits per 10,000	26.69	28.54	21.59	30.18	8.52	18.92
Hospitalizations per 10,000	5.17	6.12	4.22	5.83	1.95	3.88

# **Chronic Obstructive Pulmonary Disease (COPD)**

Source: <u>CDPHE</u>, <u>CDC</u> 2023

# COVID-19

	Colorado	Adams	Arapahoe	Denver	Douglas	Jefferson
COVID-19 Cases Reported	1,769,981	168,289	199,619	227,898	102,146	162,971
<u>COVID-19</u> Total Deaths Reported	14,522	1,506	1,425	1,571	527	1,611

Source: USA FACTS 2023

# Lung Cancer

Colorado rate of early lung cancer diagnosis is 30.8% compared to 27.4% nationally and the state's lung cancer screening rate is <u>9.9% compared to 16%</u> of those at high risk screened nationally.						
Lower than state rate Higher than state rate: No difference:						
	Colorado	Adams	Arapahoe	Denver	Douglas	Jefferson
Lung Cancer Incidence Rate Cases per 100,000	25.8	25.2	23.3	24.7	18.6	24.4
Percent of Cases with Late Stage	24.8	26.6	24.0	23.3	18.1	22.3

Source: National Cancer Institute 2023

## **Summary of Secondary Public Health Data**

Adams County: Adams County has the youngest population of the five main Denver-area counties. Life expectancy and high school graduation and college education are the lowest in the metro area. The county has the highest rates of uninsured and Medicaid patients. Adams County has the fewest white residents and the most Hispanic residents. Among the metro area counties, Adams has the highest percentages of adult smoking, obesity and insufficient sleep. This county has the most adult residents with asthma; the highest rates of asthma hospitalizations and emergency room visits; and the highest rate of pediatric asthma emergency room visits. It has the highest percentage with COPD, the most COPD hospitalizations, and the highest rate of lung cancer and late-stage disease. Adams County had the third highest number of reported COVID deaths.

**Arapahoe County.** Arapahoe County has the second highest number of residents in all Colorado counties, second most people over age 65, the highest percentage of Black people and the second highest percentage of Hispanics. It has the second highest life expectancy, one of the highest rates of adult smoking and the second highest percentage of obesity and insufficient sleep in adults. This county has one of the lowest levels of adult asthma in the metro area, but the second highest rate of emergency room visits for all ages. Arapahoe County also has the second highest rate of adults with COPD and had the second highest total reported cases of COVID and the second highest number of total COVID deaths.

**Denver County.** Denver County is the most populous county in our community, but it has fewer children and fewer residents over age 65 than other metro area counties. This county has the most diverse population, the most children and families below poverty line and second most uninsured residents and those on Medicaid. Life expectancy in the county is above the state average of 77.5 years, but lower than Douglas, Arapahoe and Jefferson counties. Denver County is one of three metro areas with 13% of adults smoking, which is higher than the overall state rate, and the least number of obese adults. Denver County has the highest level of poor air quality, the second highest rates of asthma and related hospitalization and emergency room visits, the highest rate of pediatric asthma hospitalization and the highest number of COPD-related emergency room visits. Insufficient sleep among adults in this county is the third highest in the Denver area. This county had the state's highest total recorded COVID cases and deaths.

**Douglas County.** Douglas County is the third healthiest county in the nation according to <u>U.S. News & World</u> <u>Report.</u> Douglas County has the fewest people in our service area, the second most under age 18, the highest number of white and fewest number or Hispanic people, highest income, fewest below the poverty line and on Medicaid. Douglas County has the highest life expectancy, the lowest level of adult smoking, adults with asthma and adults with COPD. Hospitalization rates for asthma and COPD are the lowest in Douglas compared to other metro area counties. This county, at the south of the metro area, has better air quality than Adams, Denver and Jefferson counties. This county has the lowest rate of insufficient sleep, lung cancer cases and the lowest reported number of COVID cases and deaths in the state.

**Jefferson County**. Jefferson County has the highest percentage of residents over 65 in our service area, with the fewest Black residents, the second highest average income and the second lowest poverty rate for children and families. Air pollution is third highest in this area. Asthma rates are the third highest for adults in this county, but it has the second lowest hospitalization rates of all ages. This county also has the second lowest rate of insufficient sleep. Jefferson County has the second highest number of adults with COPD and the highest number of total COVID cases and deaths reported. The county's rate of lung cancer is about in the middle of other metro area counties.

# **Identification & Prioritization of Significant Health Needs**

# **Primary Data Collection — Community Input**

National Jewish Health sought input from the community via three channels

- 1. Community Benefit Meeting
- 2. Survey of Community Health Providers
- 3. Survey of National Jewish Health faculty with extensive community outreach experience

#### **Community Benefit Meeting**

Beginning in 2020, the community benefit meetings were held using a virtual format because of the pandemic. The 2025 meeting was held on May 7, 2025.

The meeting included an overview of National Jewish Health, its history and historic commitment to serving all in need as well as its grounding in the community. The session also overviewed community health efforts and created an opportunity for community members — organizations and individuals — to ask questions and share their input about priorities, needs and desires for improved community health. National Jewish Health senior leadership and community outreach leadership led the session and covered a selection of the programs that benefit patients and the community.

#### **Outreach for Attendance**

To promote the event each year and to assure that key organizations as well as the general public were invited, National Jewish Health used a variety of approaches. One of the ongoing public facing strategies was to share a social media event invitation on Facebook several weeks before the meeting and pin it for seven days before the meeting. An email invitation was sent five times over the month prior to the date of the event with reminders the day before and day of the event. For the 2025 event, direct invitations were sent to 182 individuals at various health, public health, government and other related organizations. In addition, an advertisement was placed in the *Denver Post* twice in the weeks prior to the meeting. These ads invited the community to the public meeting.

In the weeks before the meeting, National Jewish Health community outreach staff members directly contacted representatives from several low income and Community Health Centers in the area. The representatives were invited to the meeting but also took the time to talk through several questions and share suggestions to help in the gathering of key information. Twenty-five people registered for the meeting with 19 attending. Attendees included individual citizens and representatives of several community organizations and government entities.

Following the session, a recording of the meeting was posted online and an invitation to send in additional comments was provided. The most recent 2025 meeting recording can be found <u>at this link</u>.

#### Speakers for the 2025 event:

- Michael Salem, MD, President & CEO
- Steve Frankel, MD, Executive Vice President, Clinical Affairs
- Greg Downey, MD, Executive Vice President Academic Affairs & Provost
- Carrie Horn, MD, Chief Medical Officer
- Lauren Green-Caldwell, Vice President Communications

#### Agenda:

- Overview and Community Benefit Profile
- Our Research Mission
- Hospital Transformation Program
- Our Clinical Approach
- Community Program Highlights
- Next Steps and Questions & Answers

#### **Follow-Up Survey**

In the weeks following each community session, a brief survey was developed to solicit additional input from those who attended the National Jewish Health community meeting, as well as those who could not attend and others identified as having an interest in the organization's community benefit programs. Results are gathered and used to guide our ongoing efforts over the next months, as well as to guide the next Community Health Implementation Plan.

The survey asks participants to rank various social determinants of health that they would most like to see hospitals address. It also asks for input on various health behaviors that participants would most like to have more information about or have services identified, including understanding what services developed during the pandemic may be most helpful to our local communities. From past surveys, we learned that increased access to care, including specialty care; mental health services; and increased information and education about health issues were identified high on the scale of needs. Participants ranked food security, housing and social connection as the social determinants of health they would most like hospitals to address. Overwhelmingly, participants said that anxiety and depression are the health behaviors for which people in the community need more information and/or support.

There were no submissions to the 2025 Follow-Up Survey. We continue to analyze all input received from community meetings and other surveys to help us fine tune current plans and develop new services.

# **Survey of Community Health Providers**

Each year, National Jewish Health surveys community providers in the Denver metro area to help better understand the needs of their patients, clients and staff. These providers represent safety net and other clinics that see underserved populations, seek to prevent homelessness and provide comprehensive affordable health care services. The following questions are sent via email, with responses returned by telephone calls or email messages. A list of providers surveyed, questions asked and responses provided are reported below.

Questions:

- What are the most common and burdensome respiratory diseases among your patients?
- What is the biggest obstacle to effective care for your patients' respiratory diseases?
- Which respiratory patients need the most help?
- What is the greatest opportunity for National Jewish Health to improve the respiratory health of your community?

# Community Health Providers Surveyed

Organization	Description	Contact
<u>Clinica Colorado</u>	Provides a medical home for underserved, especially uninsured Spanish-speaking families.	Vanessa Vergara, MD, Medical Director
<u>Clínica Tepeyac</u>	A "gateway to health for the underserved" that provides low-cost primary and preventive	Jim Garcia, CEO
	care at its clinic in Central Denver	Pamela Valenza, MD, MPH, Chief Health Officer
<u>Colorado Coalition for the</u> <u>Homeless</u>	Works collaboratively to prevent homelessness and create lasting solutions for all experiencing homelessness.	Ed Farrell, MD, Medical Director
Denver Health Community Health Clinics — Family Medicine	Denver Health is Denver's primary safety-net institution. Denver Health has 10 primary care centers across Denver	Lara Penny, MD, Director, Family Medicine
		Lucy Loomis, MD
<u>Denver Health Community</u> Health Clinics — Pediatrics	A safety-net institution that provides pediatric care at five locations in Denver and in numerous Denver Public Schools	Steve Federico, Chief of Government and Community Affairs Officer
Every Child Pediatrics	Provides comprehensive, affordable health care to over 22,000 Colorado children at nine locations in the Denver Metro area	Laura Luzietti, MD, Medical Director
		Denise Forrest, CPNP
Inner City Health	Provides equitable, high-quality health care for those in need in Denver and Wheatridge.	Randy Craig, MD, Chief Medical Officer
Salud Family Health Centers	Provides medical, dental, pharmacy and behavioral health care for low-income, medically underserved and migrant/seasonal	Pradeep Dhar, MD, Chief Medical Officer
	farmworker population at 13 clinics and a mobile unit in northeast and southeast Colorado	Tillman Farley, MD, Chief Medical Officer Emeritus
STRIDE Community Health Center	Provides culturally sensitive, affordable and accessible health services among low-income, uninsured and underserved populations at 20	Megan Adamson, MD, MHS Chief Medical Officer
	locations in Adams, Arapahoe, Douglas, Jefferson and Park counties.	Aza Fahed, MD, FAAP, Deputy Chief Medical Office

# **Key Findings - Community Health Provider Surveys**

#### What are the most common and burdensome respiratory diseases among your patients?

- Most common asthma, COPD (finding affordable inhalers and continuous access to specialists and DME companies for portable oxygen supply), pneumonia, obstructive sleep apnea, complex diseases including sarcoidosis, pulmonary hypertensions, pulmonary fibrosis
- Most burdensome aerodigestive disorders

#### What is the biggest obstacle to effective care for your patients' respiratory diseases?

- Length of time to get appointments
- Affordability and health literacy
- Patient motivation to avoid triggers (tobacco use)
- Cost of inhalers
- Cost of treatment of sleep apnea
- Cost
- Transportation
- Finding providers who will take Medicaid or uninsured patients

#### Which respiratory patients need the most help?

- Patients with aerodigestive disorders
- Patients with COPD and sleep apnea
- Asthma patients
- Uninsured patients
- Medicaid patients
- Patients with more complex autoimmune diseases that are the most difficult to manage

# What is the greatest opportunity for National Jewish Health to improve the respiratory health of your community?

- Make sure that CPAP machines are actually getting ordered if we refer
- Donate free samples of inhaled corticosteroids or sell them to our clinic at a discounted rate
- Contact us with a pulmonologist who is willing to volunteer time with our providers
- Provider education on asthma was excellent, much appreciated by providers

# The following comments add updated perspectives on these identified in surveys from previous years

- Appreciate National Jewish Health seeing Medicaid and uninsured patients
- Asthma, especially among children, chronic obstructive pulmonary disease (COPD), COVID, and sleep apnea were the most mentioned diseases.
- Chronic diseases such as asthma, COPD, interstitial lung disease and autoimmune diseases present a challenge with their need for ongoing care, appointments, cost and treatment complexity (i.e., rescue vs. maintenance inhalers).
- Complexity and cost of sleep apnea testing, obtaining CPAP equipment and follow-up are obstacles to care.
- Increased hours and appointments for pediatric asthma specialty care would be helpful.
- Cost of appointments and tests are obstacles to care.
- Cost of more effective medications, low-dose CT screenings, pulmonary lung function tests

- National Jewish Health follow-up with community providers can be a problem.
- Overall better support for smoking cessation, better education about daily inhalers, class for new diagnoses of COPD
- Patient compliance with asthma and COPD inhaler treatment
- Patients continue to smoke
- Timely help for patients considered low-income, those medically underserved.
- Two providers suggested e-consult service, which might help community health center staff better care for patients, especially the severely ill and those with rare diseases.
- Targeted education for providers would be valuable.
- Tools for low literacy, limited-English-proficiency patients were suggested.

# Survey of National Jewish Health Faculty with Extensive Community Outreach Experience

Several National Jewish Health faculty and staff have reached beyond National Jewish Health facilities to engage with and improve health care for underserved communities. As part of their work, they have gathered information and gained insight on community health needs and challenges, and how National Jewish Health might address them.

<b>Bruce Bender, PhD</b> Head, Division of Pediatric Behavioral Health Co-Director, Center for Health Promotion	Bruce Bender, PhD, is a Professor in the Department of Pediatrics. For 20 years he has headed the Asthma Toolkit Program, which trained more than 500 physicians to care for rural, underserved children with asthma. Continuing this program to further address health disparities for children with asthma, his team has spent the last decade working within the Indian Health service, including on the Navajo Nation, Southern Ute Nation, and the Apache Nation in Colorado, New Mexico and Arizona.
Lisa Cicutto, PhD, RN Professor of Medicine Director, Community Research	Dr. Cicutto's work focuses on promoting evidence-based management of asthma in adults and children and COPD by building capacity and partnerships among patients, families, schools, public health and their health care providers. She leads extensive community projects to improve lung health in Colorado's San Luis Valley and Lower Arkansas Valley and is expanding those efforts into Weld and Morgan counties, the Pikes Peak area, and the communities of Delta, Mesa and Montrose, which border our service area. Dr. Cicutto also leads an environmental health project emphasizing air quality in Denver and Colorado's San Luis Valley and Lower Arkansas Valley areas to help residents understand and reduce their exposure to air pollution. She leads eight community advisory boards around the state to identify community problems, issues, priorities and resources. Dr. Cicutto offers lung function testing at health fairs in the San Luis Valley. Additionally, she organizes/supports a Youth Climate Corps in the San Luis Valley, which is a group of high school students who provide storytelling and interactive activities in community venues (libraries, schools, community centers) for preschool to 5-year-old children about health and climate/environment issues.

#### James Crooks, PhD

Researcher, Division of Biostatistics and Bioinformatics Center for Climate, Environment and Health

#### Debra Dyer, MD

Professor of Medicine Director, Lung Cancer Screening Program Department of Radiology James Crooks, PhD, is an Associate Professor in the Division of Biostatistics and Bioinformatics. Dr. Crooks is a climate epidemiologist and data scientist as well as a nationally recognized leader on the impacts of poor air quality. His current research projects include the environmental influences on COPD outcomes, the characterizations and health impacts of airborne dust and the health benefits of home electrification for low-income families.

Dr. Dyer developed and has led the Lung Cancer Screening Program at National Jewish Health for 12 years. The program offers lung cancer screening for people in the Denver area who meet the United States Preventive Task Force eligibility requirements and includes a special program for the Bruner-Caritas clinics that serve disadvantaged and low-income individuals. The Program identifies community groups at high risk for lung cancer and provides community educational events to talk about the importance of screening. Each year the Program participates in the National Lung Cancer Screening Day, which Dr. Dyer helped launch. This event brings focused attention to the importance of screening and offers screening appointments on a Saturday for those who can't schedule a screening CT during the week. The screening program at National Jewish Health is recognized as a one of the premier lung cancer screening programs in the nation.

Jennifer McCullough, MA Director of Education Morgridge Academy for Chronically Ill Children Morgridge Academy is a free kindergarten through eighth grade school for children who have been diagnosed with asthma, eczema, food allergies, cystic fibrosis and other chronic illnesses. This school was developed to fill a need in the community for children who missed school for chronic health conditions and became behind academically.

Morgridge Academy is the only school of its kind on a medical campus in the country, and its mission is to provide a safe, friendly and healthy school environment committed to wholechild development. Eighty percent of the students are eligible for free and reduced lunch, and nearly all students require medical care during the school day. The school has small class sizes, which gives students more individualized teaching than they can get in public school. This helps students improve their academic skills and grades. Full-time, registered nurses are onsite all day, every day to manage health needs and teach students and their families how to manage health issues at home. Thousands of students credit the school for helping them get their grades back on track, return to their home school, prepare them for high school and college and improve self-management of their chronic diseases.

Cecile Rose, MD, MPH Professor of Medicine Director of Division of Environmental & Occupational Health Sciences	Dr. Rose's work has focused on providing free health screenings for current and retired coal, metal/non-metal miners and historic uranium workers through the National Jewish Health Miners Clinic. This clinic offers free and confidential screenings in Denver, Pueblo, Montrose and Craig in Colorado and in Casper, Wyoming and Page, Arizona, and includes federal program benefits counseling. Dr. Rose's team recently reported that the burden of cardiorespiratory diseases, personal and job-related risk factors, and depression in these populations is substantial. In addition to screening for lung scarring, their findings show that screening for lung cancer, cardiovascular disease and mental illness is essential to improving the health of miners in our area. Additionally, Dr. Rose is Medical Director for the Deployment- related Lung Disease Center at National Jewish Health. This center provides in-depth specialty care for military veterans with persistent and often disabling respiratory symptoms following deployment to Iraq, Afghanistan and other military theaters of conflict. Clinical research emerging from the center has enabled our providers to create a comprehensive approach to diagnosing and treating these veterans, who are at risk for a wide spectrum of respiratory diseases from burn pit smoke, desert and combat dust, diesel exhaust and other military occupational exposures.
<b>Pamela Zeitlin, MD, MPhil, PhD</b> Chair, Department of Pediatrics	Dr. Zeitlin is chair of the Department of Medicine and oversees all pediatric care, research and outreach. She helps maintain our working relationship with HCA HealthOne Rocky Mountain Children's at Presbyterian St. Lukes Hospital in Denver. As a pulmonologist, researcher and in her leadership role, Dr. Zeitlin has identified areas of health need in our community that include pediatric asthma, obesity, sleep, lung disease in premature infants, food allergy, eczema, flu, teen vaping and the impact of air quality on pediatric health.

# Key Findings – National Jewish Health Faculty & Staff

- Pediatric asthma, COPD and other respiratory diseases, work-related respiratory illnesses and the impact of air pollution on these diseases and lung health represent the most common and burdensome respiratory diseases in the community.
- Medication adherence, wellness and challenges posed by poverty and transportation are major obstacles to care.

Best opportunities for National Jewish Health to expand its focus on improved community health are:

- Share evidence-based expertise with community health providers so they can better care for their patients with asthma, COPD and other respiratory conditions.
- Continue to improve treatment adherence and wellness through patient education.
- Bring more children in need to the Morgridge Academy at National Jewish Health.
- Increase participants at free health screenings for current and retired miners.
- Continue its pioneering research on all aspects of asthma.
- Enhance research and education on the respiratory impacts of exposures related to wildfire smoke, ozone and traffic pollution.
- Increase awareness of the importance of lung cancer screening and sleep health.

# **Significant Health Needs Summarized**

Asthma and chronic obstructive pulmonary disease (COPD) are the most common and burdensome respiratory diseases among the National Jewish Health community. Air quality, limited access to specialty health care, inadequate patient and provider education and tobacco use all contribute to poor respiratory health in Colorado.

# **Social and Population Health**

**Tobacco Use.** Tobacco use is the number one preventable cause of death in the United States, accounting for approximately 480,000 deaths each year from a variety of diseases, including lung and many other forms of cancer; heart disease; and respiratory diseases, including COPD and pneumonia.

The most recent data from the U.S. Centers for Disease Control and Prevention (CDC) estimated that 11.6% of all American adults (38.8 million) were current smokers. In Colorado 10.2% of adults currently use tobacco. Smoking is significantly more prevalent among poorer adults and those with less education.

In recent years, the use of electronic cigarettes has declined but remains as high as 27% among teenagers and young adults. While the e-cigarettes may not expose users to as high a concentration of combusted carcinogens as smoking tobacco cigarettes, they deliver highly addictive nicotine. E-cigarettes can addict users to nicotine and increase the risk of later tobacco use. These results are becoming more clear as research continues.

**Education.** Patients and providers could benefit from additional education about respiratory diseases, their symptoms and how to diagnose and manage them. National Jewish Health has a wealth of knowledge and expertise on respiratory diseases and the evidence-based strategies to manage them.

**Access to Specialty Care.** Cost, transportation and time all limit patients' access to specialty care. Health care providers also expressed an interest in better access to National Jewish Health expertise, with two suggesting brief e-consults with National Jewish Health faculty, which could reduce the need for patients to visit in person. National Jewish Health is also addressing access to subspecialty care, such as rheumatology and neurology, through hiring additional physicians and care staff in underrepresented medical fields.

**Air Quality.** The five counties comprising the National Jewish Health community all suffer from poor air quality, worse than most counties in the state, especially ozone and particulate pollution. Population growth has contributed to increased traffic, which increases pollution. Increasing frequency and severity of wildfires has also increased air pollution in recent years.

Cost. Cost of care and medications were mentioned frequently as an obstacle to care.

# **Respiratory Health**

**Asthma.** Asthma represents the most common diagnosis among National Jewish Health patients. Asthma is the most common chronic disease in children and accounts for the most missed school days. According to the CDC, asthma rates are higher among children, especially those who are poor, male and/or Black American.

In Colorado, 10.4% of adult residents and 6.4% of Colorado children have asthma. In the National Jewish Health community, asthma rates are highest in Adams, Denver and Jefferson counties. Uncontrolled asthma, as evidenced by emergency room visits and hospitalizations, is highest in Adams and Arapahoe counties. The

Colorado Department of Public Health and Environment notes that prevalence of asthma in children and adults is greater among those on Medicaid.

Surveys of community health providers and National Jewish Health experts noted pediatric asthma as an especially significant health need. Cost of medications and home environments not conducive to respiratory health were mentioned as challenges for pediatric asthma patients.

According to the CDC, the most effective methods of asthma control and management include:

- Reducing exposure to triggers
- Treating patients with appropriate medications such as inhaled corticosteroids
- Educating patients and caregivers
- Improving asthma management in schools
- Identifying and sharing best practices
- Targeting interventions to populations disproportionately affected by asthma

**Chronic Obstructive Pulmonary Disease.** Chronic Obstructive Pulmonary Disease (COPD) is the third leading cause of death in the United States and the fourth leading cause of death in Colorado. COPD represents the second most common diagnosis at National Jewish Health.

In 2024 (the most current data), Colorado averaged 104.5 COPD deaths per 100,000 people according to the Centers for Disease Control and Prevention.

In the National Jewish Health community, Adams County has a higher rate of COPD than the other metro area counties. Adams and Denver Counties have higher rates of uncontrolled COPD as evidenced by ER visits and hospitalizations.

COPD prevalence is highest among older people; people who smoke or have smoked in the past; and in rural and frontier counties (six or fewer people per square mile). Age-adjusted COPD mortality rates are decreasing among men and increasing among women. In Colorado and the U.S. overall, COPD mortality is highest among whites.

Underdiagnosis of COPD is a significant concern. While approximately 16 million Americans have been diagnosed with COPD, millions more suffer undiagnosed disease, according to the National Heart, Lung and Blood Institute (NHLBI).

In its "COPD National Action Plan," the National Institutes of Health establishes two goals that are especially applicable to National Jewish Health:

• Empower people with COPD, their families and caregivers to recognize and reduce the burden of COPD. This involves communications campaigns and screening to increase diagnosis of COPD, so that patients can get care to slow progress of the disease and improve quality of life earlier.

• Improve the prevention, diagnosis, treatment and management of COPD by improving the quality of care delivered across the health care continuum.

**Sleep Apnea.** More than 30 million Americans are estimated to have obstructive sleep apnea (OSA). Because people with sleep apnea don't usually get restful sleep at night, they may be excessively sleepy during the day, which can lead to difficulties at school and work, and even to car accidents. Untreated severe OSA is associated with a higher risk for insulin resistance, heart attack, high blood pressure and stroke. Many people with these conditions have undiagnosed OSA. Once OSA is diagnosed, it can be treated, which reduces the risk of diseases that often accompany the syndrome.

# **Selected Areas of Focus Going Forward**

Based on a combination of community need and National Jewish Health capabilities, the following areas will be the primary focus of additional efforts to address community health needs. Specific strategies and initiatives to address these areas of focus will be included in the Community Health Implementation Plan, which will be available in November 2025.

## **Access to Multispecialty Care**

The high rates of emergency care and hospitalizations for asthma and COPD, poor air quality, an aging population and availability to specialized care among Medicare and Medicaid populations indicate that respiratory patients in our community need better access to the knowledge and expertise of National Jewish Health. National Jewish Health will look for ways to increase enrollment at Morgridge Academy for Kindergarten through 8<sup>th</sup> grade students, extend research efforts into environmental impacts on respiratory health, and develop programs to bring our care to more community members and education to community providers. National Jewish Health will seek to increase access to our Immediate Care program and continue work to care for patients with chronic respiratory and related conditions to decrease hospitalizations.

## **Pediatric Respiratory Health**

Rates of asthma, and especially rates of emergency room visits and hospitalizations among children living in the National Jewish Health community, along with universal mention of asthma, food allergy and eczema among pediatric community health providers, suggests this is a large unmet community health need. National Jewish Health has the expertise, knowledge, capacity and tools to improve diagnosis and treatment of children with chronic and acute respiratory conditions.

## **Education**

Both providers and patients could benefit significantly from better understanding respiratory health and ways to protect it, from educating providers about handling difficult respiratory cases to educating patients about managing their disease and reducing exposure to respiratory irritants as well as to expanding our understanding and treatment of these diseases through research. National Jewish Health has an extensive library of patient education materials and professional education programs that could be made available and accessible to more people.

## **Health Needs Not Addressed**

All of the identified significant health needs are important to National Jewish Health. However, the institution must focus its leadership, time and resources on the selected needs in order to make a difference in the community's health. The selected needs are ones to which National Jewish Health brings extraordinary expertise and capabilities not widely available in the community. Limitations of funding, staff and expertise at the hospital were considered barriers to effectively addressing the unselected needs. Unselected needs were also ones that could be addressed by other organizations.

# **Appendix A:**

# **Current National Jewish Health Programs to Address Community Health Needs**

# **Patient Care**

In fiscal year 2024, National Jewish Health provided charity care services worth \$1,176,055 and millions more in uncompensated care of Medicaid patients. Unlike many institutions, National Jewish Health places no restrictions on Medicaid patients; they receive the first available appointment with specialists, not the first available Medicaid appointment.

With 18 practice locations across Colorado, National Jewish Health serves patients throughout the state. As a tertiary care center, patients are referred to National Jewish Health from around the nation, many with conditions so difficult and baffling that they could not be successfully treated anywhere else.

## Research

National Jewish Health faculty and staff conduct extensive basic, translational and clinical research that serves both the local and national communities suffering from a wide variety of respiratory, immune and related diseases, which is supported by about \$59.3 million in funding received each year, mostly from the National Institutes of Health. National Jewish Health invests another \$20 million of its own funds each year in research. In recent years, research findings have included the most effective treatment yet for cystic fibrosis, origins and course of asthma, the first-ever treatments for idiopathic pulmonary fibrosis, ways to motivate sleep apnea patients to adhere to prescribed therapy and novel therapy for vocal cord dysfunction.

Below is a partial list of prominent research programs and networks in which National Jewish Health participates:

- AsthmaNet is a nationwide clinical research network created by the National Heart, Lung and Blood Institute (NHLBI) in 2009. AsthmaNet develops and conducts multiple clinical trials that explore new approaches in treating asthma from childhood through adulthood. National Jewish Health is currently participating in several trials, including: understanding how microscopic organisms in various organs of the body can improve or worsen asthma; identifying new treatment approaches to recurrent, severe episodes of lower respiratory tract symptoms in young children with asthma; and why Black people commonly have worse asthma less amenable to successful treatment.
- **COPDGene**<sup>®</sup> is one of the largest studies ever to investigate the underlying genetic factors of chronic obstructive pulmonary disease or COPD. Funded through a \$35 million grant from the NHLBI, the COPDGene Study is looking for answers to why some smokers develop COPD and others do not. Through the enrollment of more than 10,000 individuals, the COPDGene Study aims to find inherited or genetic factors that make some people more likely than others to develop COPD. With the use of CT scans, COPDGene seeks to better classify COPD and understand how the disease may differ from person to person.
- Atopic Dermatitis Research Network. In July 2010, National Jewish Health was awarded \$31 million from the National Institute of Allergy and Infectious Diseases to lead a consortium of academic medical

centers seeking to understand skin infections, especially by drug-resistant bacteria and viruses, associated with atopic dermatitis.

- **Clinical and Translational Research Center**. Funded by the National Institutes of Health, the center provides an infrastructure for community-based research in collaboration with the University of Colorado.
- Early Detection of Lung Cancer. Three separate trials are seeking to detect lung cancer earlier, when chances for successful treatment are much greater. The trials combine CT scans, which have shown promise, with biomarkers that seek to refine results and improve their predictive value. Earlier detection of lung cancer is the most promising tool for increasing survival of patients with this disease, which kills more than 130,000 Americans every year.
- Military Deployment Lung Disease. More than 3 million U.S. military personnel have deployed to Southwest Asia over the past 20 years. Researchers at National Jewish Health are investigating why those deployed to Southwest Asia suffer increased rates of respiratory disease and are exploring potential test and treatments. About \$11.5 million in grants from the U.S. Department of Defense has helped determine that those who return from deployment are at risk for a spectrum of chronic respiratory diseases due to exposures from burn pits, sandstorms, combat dust, diesel exhaust and other workplace hazards, and has supported efforts to accurately diagnose and repair the injured lung.
- **COVID Research**. As a renowned academic medical center focused on respiratory disease and intensive care, National Jewish Health is ideally suited to research all facets of COVID-19. National Jewish Health participated in more than a dozen clinical trials of experimental medications for COVID-19 and conducted extensive clinical, translational and basic research into SARS-CoV-2 and COVID-19. National Jewish Health faculty have published more than 85 peer-reviewed scientific papers on topics ranging from molecular mechanisms to testing, vaccines, pathogenesis, medications, outcomes and social impacts of the pandemic.

# **Community Outreach**

- Free Lung Testing. Until the early months of the pandemic in 2020, National Jewish Health staff participated in nearly 100 free community outreach events in and around Colorado each year. At these events, educational materials and free lung testing were offered. Lung testing can help detect lung disease that needs medical attention. National Jewish Health has long provided this free service to reach at risk communities across Colorado. Free testing continues in Southern Colorado in communities that have little access to pulmonary care. National Jewish Health is committed to reviewing how this or a similar service can be expanded in the future to other communities in need.
- **Tobacco Cessation.** National Jewish Health currently operates tobacco cessation programs in 26 states, including Massachusetts, Pennsylvania, Michigan and Colorado, and has recently added service for Texas. National Jewish Health is the nation's largest nonprofit tobacco quit line provider. The Health Initiatives department at National Jewish Health manages these quit lines and works to develop tobacco cessation protocols for especially impacted and vulnerable populations.
- On July 1, 2019, National Jewish Health launched an enhanced tobacco cessation program specifically for teens who want to stop using tobacco products, including electronic cigarettes and vapes. The My Life, My Quit program has been highly successful and includes educational materials designed for teens

and created through focus groups with teens, subject matter experts and community stakeholders. Teens can text or call a toll-free number (1.855.891.9989) dedicated specifically for their age group, or they can visit <u>mylifemyquit.com</u> for real-time coaching. Through the program, teens work with a coach who listens and understands their unique needs, provides personalized support, and helps them build a quit plan to become free from nicotine.

- The Miners Clinic of Colorado. This program provides nationally recognized medical screening, diagnosis, treatment, pulmonary rehabilitation, education, counseling and prevention services through free screening programs held at various locations around the state.
- The Black Lung Clinic. This clinic offers appointments year-round at National Jewish Health in Denver. It also holds annual outreach clinics in partnership with local hospitals in Craig, Montrose and Pueblo, Colorado, as well as Page, Arizona, and Casper, Wyoming.
- The Radiation Exposure Screening and Education Program (RESEP) Clinics. This program was created by the Radiation Exposure Compensation Act (RECA) Amendments of 2000 to help thousands of workers who were involved in the mining, milling and transport of uranium used to produce atomic weapons for the United States. The program provides screening for diseases related to radiation exposure, referrals for patients needing further diagnostic or treatment procedures and help with documenting claims under RECA.
- Walk-with-a-Doc. The program, led by the National Jewish Health Director of Cardiovascular Prevention and Wellness, Andrew Freeman, MD, was supported and continues to thrive and grow with monthly walks and programs held in parks around Denver. This program, now in its 15th year, has engaged with more than 5,000 participants across metro Denver. The program averages 50-100 walkers a month.

## **Education**

National Jewish Health faculty and staff provide a wide variety of free educational programs for both consumers and health professionals, which improve care and patient health. Patient education has always been a key part of patient care at National Jewish Health. Physicians, advanced practice providers and nurses continue to educate patients during in-person and telehealth visits. Hands-on education improves treatment compliance, which helps keep diseases under control. Below are some examples of education programs that are either fully supported and managed by National Jewish Health or otherwise invested in:

- Patient Education Morgridge Academy. National Jewish Health operates a free K-8 school for chronically ill children on the organization's main campus in Denver. The school addresses medical and social issues among students who are predominantly low-income and historically marginalized students, then creates a learning environment that allows children to fully participate in academic studies and catch up on lost ground due to absences caused by asthma and other chronic diseases. It is the only school of its kind on a medical campus in the nation. The Colorado Department of Education covers about one-third of the costs, and National Jewish Health funds the remaining two-thirds.
- **Support Groups.** National Jewish Health hosts, organizes and leads several community support groups for people suffering from various health issues, including alpha-1 antitrypsin, diabetes, chronic obstructive pulmonary disease, immune deficiency, interstitial lung disease, metabolic health and wellness.

**Health Content.** National Jewish Health provides a robust library of health content, authored exclusively by experts at National Jewish Health, both in print and online. The educational material produced ranges from more than 200 MedFacts, TestFacts and Understanding booklets to dozens of instructional videos on topics such as inhaler technique and "What is COPD?" In early 2020, we launched one of the nation's first COVID-19 websites to provide helpful, authoritative and factual information related to the SARS-CoV-2 virus and COVID-19, the disease it causes. The COVID information brought nearly 4 million visitors to the website resulting in more than 7.1 million pageviews. The National Jewish Health website is certified by the Health on the Net Foundation Code of Conduct (HONcode) as a trustworthy site for health information.

#### **Professional Education**

- Academic Training. National Jewish Health provides an active training program for medical students, interns, residents and postgraduate fellows in allergy, immunology, environmental and occupational health sciences, pulmonology, pediatrics and more. At any given time, about 70 residents and fellows are receiving training at National Jewish Health for future careers in medicine.
- Asthma and COPD Toolkit Initiatives. Since 2007, National Jewish Health faculty and staff have conducted a series of educational initiatives aimed at increasing health care providers' ability to assess and manage asthma and COPD. The programs have so far trained caregivers in 170 primary care practices that serve medically underserved populations in eastern Colorado, southern Colorado and the Denver metro area and the Navajo Nation in Arizona.
- **Denver TB Course.** For more than 60 years, National Jewish Health has hosted the Denver TB Course every year. The course provides a broad overview of active and latent tuberculosis, including its epidemiology, transmission, pathogenesis, diagnosis, treatment and management. This course presents this body of knowledge to any health care providers who will be responsible for the management and care of patients with tuberculosis. This course became virtual in 2021, which allows more providers to participate.
- **Professional Education Seminars.** The Office of Professional Education regularly develops multi-city series of educational seminars at which our expert physicians educate health professionals on current topics concerning the diseases we treat, ranging from the safety and efficacy of inhaled corticosteroids in asthma, emerging medications in asthma and current best practices in care of patients with interstitial lung disease. Seminars changed to a virtual format during the pandemic and are now offered in virtual, online and in-person formats. Online continuing medical education courses are also available on asthma, cardiology, COPD, nontuberculous mycobacteria and other areas of expertise.

# **Appendix B:**

Survey from Community Input Sessions Questionnaire for Community Health Benefits Discussion, May 7, 2025

Of the community health priorities represented across health systems, please rank the following in order of importance to you 1 (most important) through 11 (least important). Access to Care Air Pollution Mental Health Substance Use Disorder Oral Health Pulmonary Disease Suicide Unintentional Injury Cardiovascular Disease/Stroke Diabetes	In which Social Determinants of Health (e.g., food security, education, safety, housing, etc.) would you like to see hospitals be more active? (select top 2) Built Environment (environment in which people live and work) Economic Development Education Food Security Housing Safety Social Connection Transportation
Social Determinants of Health (e.g., food security, education, safety, housing, etc.)	
Select the top three health behaviors that people in your community need more information about and/or support? Nicotine/Tobacco Cessation Weight Management Nutrition Physical Activity Depression, Anxiety Falls Prevention Sleep Oral Health Other (please specify)	What is your best idea for improving the health of your community? Do you consider Health Equity to be a health priority? (If yes, why?)
How would you prefer to stay engaged with us around community benefit? (select frequency) Newsletter Educational Materials Website Annual Reports Social Media Partner to Design & Implement Strategies Public Meetings (including virtual)	How important is it for local hospitals to offer the following services for COVID-19? (select very important, somewhat important, neutral, not important) Testing Services Vaccine Services Specialized Care Services Is there any additional feedback you would like to share?

# **Appendix C:**

## **Community-Wide Health Care Resources Available to Address Needs**

Adams, Arapahoe, Denver, Douglas and Jefferson counties are served by several large health care systems, multiple community-based health centers and a large network of medical providers. Below is information regarding county public health departments and free or low-cost community clinics where identified health needs can be addressed.

Public Health Departments Adams County Adams County Health Department 4430 S. Adams County Parkway Brighton, CO 80601 303-220-9200

#### **Arapahoe County**

Arapahoe County Public Health Department 6162 S. Willow Drive, Suite 100 Greenwood Village, CO 80111 303-795-4584

#### **Denver County**

Denver Department of Public Health and Environment 101 W. Colfax Ave. Denver, CO 80202 720-865-5400

#### **Douglas County**

Douglas County Public Health 410 S Wilcox, Ste 103 Castle Rock, CO 80104 720-643-2400

#### Jefferson County

Jefferson County Public Health 645 Parfet St. Lakewood, CO 80215 303-232-6301

#### State of Colorado

<u>Colorado Department of Public Health and Environment</u> 300 Cherry Creek Drive South Denver, CO 80246 303-692-2000

## **Community Health Providers**

Organization	Description	Contact
<u>Clinica Colorado</u>	Provides a medical home for underserved, especially uninsured Spanish-speaking families.	Vanessa Vergara, MD, Medical Director
	A "gateway to health for the underserved" that provides low-cost primary and preventive care at its clinic in Central Denver	Jim Garcia, CEO
		Pamela Valenza, MD, MPH, Chief Health Officer
Colorado Coalition for the Homeless	Works collaboratively to prevent homelessness and create lasting solutions for all experiencing homelessness.	Ed Farrell, MD, Medical Director
Denver Health Community Health Clinics — Family Medicine	Denver Health is Denver's primary safety-net institution. Denver Health has 10 primary care centers across Denver	Lara Penny, MD, Director, Family Medicine
		Lucy Loomis, MD
Denver Health Community Health Clinics — Pediatrics	A safety-net institution that provides pediatric care at five locations in Denver and in numerous Denver Public Schools	Steve Federico, Chief of Government and Community Affairs Officer
Every Child Pediatrics	Provides comprehensive, affordable health care to over 22,000 Colorado children at nine locations in the Denver Metro area	Laura Luzietti, MD, Medical Director
		Denise Forrest, CPNP
Inner City Health	Provides equitable, high-quality health care for those in need in Denver and Wheatridge.	Randy Craig, MD, Chief Medical Officer
Centers b r f	Provides medical, dental, pharmacy and behavioral health care for low-income, medically underserved and migrant/seasonal	Pradeep Dhar, MD, Chief Medical Officer
	farmworker population at 13 clinics and a mobile unit in northeast and southeast Colorado	Tillman Farley, MD, Chief Medical Officer Emeritus
STRIDE Community Health Center	Provides culturally sensitive, affordable and accessible health services among low-income, uninsured and underserved populations at 20 locations in Adams, Arapahoe, Douglas, Jefferson and Park counties.	Megan Adamson, MD, MHS, Chief Medical Officer
		Aza Fahed, MD, FAAP, Deputy Chief Medical Officer

Additional free and low-cost community health clinics can be found at <u>Free Clinic Directory</u> and <u>Need Help Paying Bills</u>.