REPORT TO THE CITY

2017

DENVER HEALTH™

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FOR LIFE'S JOURNEY

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REPORT
TO THE CITY
OF DENVER
2017

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LETTER FROM THE CEO

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LETTER FROM THE CEO

Honorable Mayor Michael B. Hancock
City and County of Denver
1437 N. Bannock Street Room 350
Denver, CO 80203

April 27, 2018

Dear Mayor Hancock,
I am delighted to provide you the 2017 Denver Health and Hospital Authority Compliance with Operating Agreement Performance Report. This document describes the incredible work resulting in Denver Health's accomplishments last year and reinforces my confidence that the faith you and the city's voters placed in us is well deserved.

My first year at Denver Health allowed me to experience what it means to live our mission of providing the highest quality of care to all who need us. Collaborating daily with our committed staff and partners provided me a first-hand look at the dedication and expertise that went into the outcomes described in this report. I am in awe of our team's abilities and knowledge. Denver Health truly embodies the concept of social justice for the residents of Denver – a concept based on human dignity, equity in treatment and opportunity to achieve a full and productive life.

In 2017, Denver voters overwhelmingly approved our request for funding the Outpatient Medical Center (OMC) as part of the General Obligation Bond. We are extremely grateful for the City's trust in Denver Health and for providing $75 million towards the cost of this project.

The demand for specialty services, including behavioral health and substance abuse treatment to combat the opioid epidemic, is increasing. Not only is the outpatient setting a more effective environment for providing care, it is also a more efficient and prudent use of our resources. Concentrating our specialty clinics in one place enables us to take a team-based approach that is far more patient centered. In addition to improving patient outcomes, the increased capacity will allow our patients to avoid costly and inappropriate reliance on the Emergency Department.

We now turn our focus to raising the remaining funds, managing the construction and

LETTER FROM THE CEO

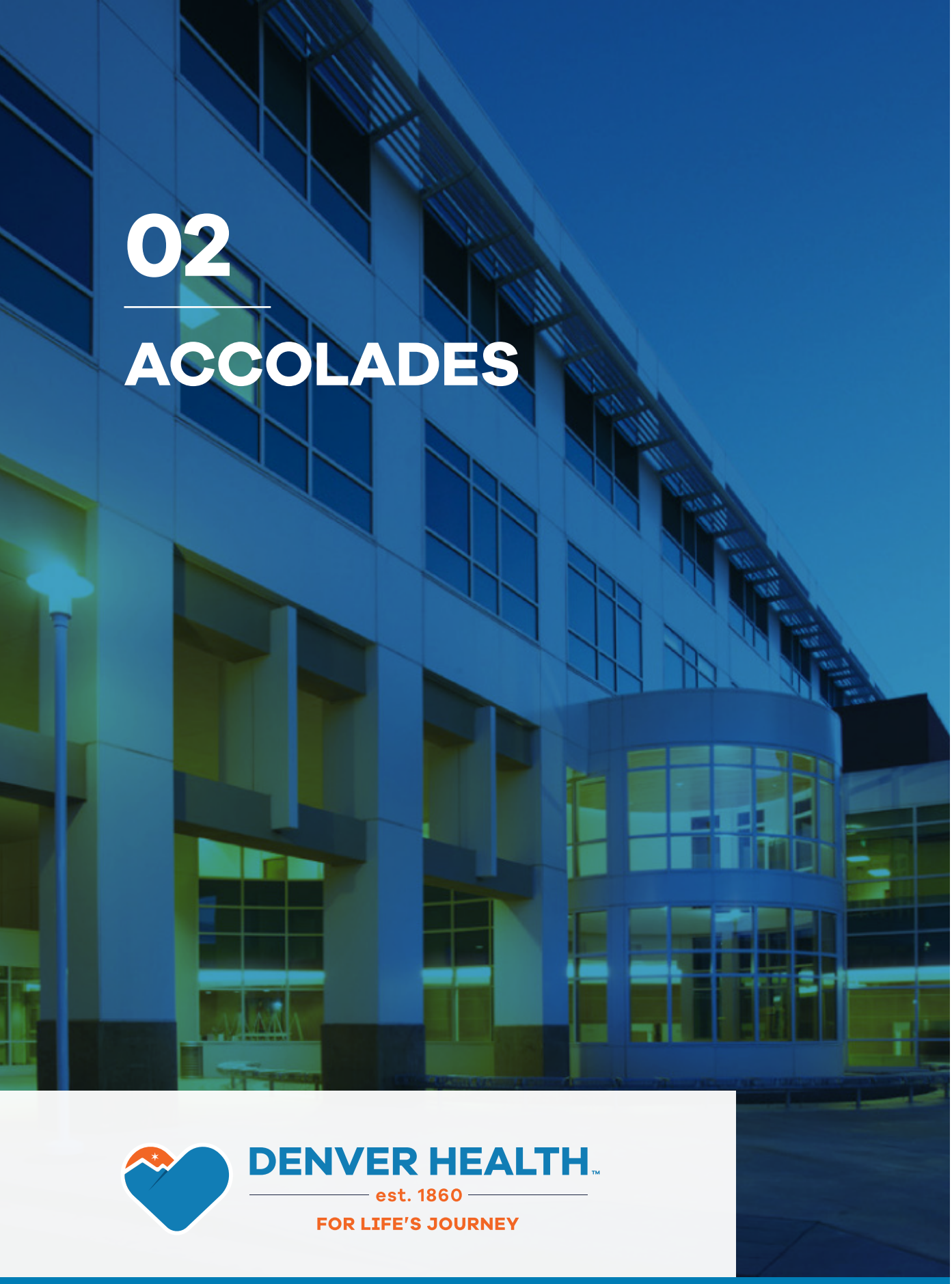
ensuring that the OMC is completed on schedule. The OMC will welcome its first patients in 2020.

Throughout the year, I have seen the cutting-edge work we do on a daily basis. We work together to approach health care in a smart, innovative way that benefits all of Denver. Our ongoing medical research, education and dynamic care model positions Denver Health to be a leader in how community health care is provided and delivered.

I am privileged to lead an exceptional health care system and excited about what we will accomplish together.

Sincerely,

Robin D. Wittenstein, Ed.D., FACHE



02

ACCOLADES

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ACCOLADES

2017 MILESTONES

Robin D. Wittenstein, Ed.D., FACHE, began as Denver Health's new CEO. Dr. Wittenstein comes to Denver Health with more than 35 years' experience in the health care industry. She has served in a variety of leadership roles in various settings including an academic medical center and safety net hospital.

Denver Health rebranded, adding more "heart" to its look. The brand update included a new logo with a heart and mountains in blue and orange, a tagline of "For Life's Journey" and established core themes of community vitality, integrated care and bold approach. As part of the rebrand, the Denver Paramedics revamped their entire fleet of ambulances with the new colors and logo.

The LGBT Center of Excellence at Denver Health launched to provide "open, affirming and excellent care for all people". Established so every LGBT person in the region can come to Denver Health for treatment, the center's vision is to establish Denver Health as the source of health care for the LGBT community.

Denver Health renovated and expanded Adult Behavioral Health Services by adding four patient beds and additional living space to a 45-bed unit.

Denver Public Health supported Denver Department of Public and Environmental Health (DDPHE) to receive national accreditation through the Public Health Accreditation Board. DDPHE became the Denver Metro Area's first local public health department to receive this designation.

Denver Health's Rocky Mountain Poison and Drug Center launched a free and confidential 24/7 Marijuana Health & Safety Line for marijuana consumers and industry professionals, in partnership with the City and County of Denver.

Denver Health's ACUTE Center for Eating Disorders doubled its capacity with a new 30-bed, medical unit at Pavilion M, helping stabilize severely ill patients and offering hope where other medical care has failed.

Denver Health Foundation partnered with the Baby Box Co., the company behind the global initiative to supply expecting families with vital parenting education and resources, making Colorado the fifth U.S. state to offer families free Baby Box supplies.

ACCOLADES

2017 NEW ROLES & RECOGNITIONS

Dayna Jaynstein, physician assistant (PA), was awarded an Emergency Medicine Certificate of Added Qualification from the National Commission on Certification of Physician Assistants and is one of only 20 PAs in the state of Colorado to earn this qualification since the program began in 2011.

Dr. Joel Marrs was elected Fellow of the American Heart Association (AHA) conferred by the Council on Clinical Cardiology. He was recognized based on his clinical work in primary and secondary prevention of cardiovascular disease (CVD). Marrs was noted to have a sustained contribution to the education of multiple health care disciplines on the prevention and management of CVD. His research in hypertension and CVD with a focus on patient-centered outcomes, was evaluated in addition to his service to AHA.

Michelle Fournier Johnson was named Chief Human Resources Officer, coming in with more than 27 years of experience in Human Resources, including the last 10 years in leadership positions within the health care industry.

Romana Hasnain-Wynia, Ph.D., was named Chief Research Officer to assure that research, a core part of Denver Health's mission, is well-represented in leadership discussions.

Randall "Fritz" Frietzsche was named Chief Information Security Officer to lead focus on cybersecurity and the improvement of protected hospital-record taking.

Greg McCarthy, MBA, was named CEO for the Denver Health Medical Plan, coming in with a strong background in health plan operations and health plan information technology.

Former Denver Health adult inpatient psychiatric unit director, **Dr. Abraham Nussbaum**, was named Chief Education Officer and provides strategic vision, daily direction and administrative oversight for Denver Health's health professional education programs, which educate more than 2,000 learners annually.

The University of Colorado School of Medicine promoted Denver Health's **Dr. Katie Bakes** to full professor of emergency medicine, deeming her the second woman since the program's 2010 establishment to receive this distinction. Her academic work has largely focused on improving the lives of those who are less advantaged in a very direct and immediately impactful way.

Seth Foldy, M.D., MPH, FAAFP, joined Denver Public Health's leadership team as Director of Public Health Epidemiology, Informatics and Preparedness. Dr. Foldy brings a wealth of experience to the Public Health team, and will focus on advancing the department's ability to use technology and information to drive public health improvements.

ACCOLADES

AWARDS & HONORS

Denver Health was recognized by Health Links as a Certified Healthy Business Leader for exemplary workplace health and safety culture. Health Links is a nonprofit initiative spearheaded by the Center for Health, Work and Environment within the Colorado School of Public Health. Through collective efforts Denver Health was able to achieve certification through our work to actively promote health, safety and well-being programs that promote healthy behaviors and keep employees safe on the job.

Denver Health received one of four Ending the Wait awards given by the Donor Alliance for 2017. Denver Health received the award for outstanding work in the area of organ and tissue donation after being able to enroll 19 organ donors and 60 tissue donors.

Denver Health received a Metro Vision Award from the Denver Regional Council of Governments, recognizing Denver Health's youth program CareerConnect, which works with Denver Public Schools to help teach students how to become successful health care industry professionals.

Denver Health was recognized by the Joint Commission as one of only ten Colorado hospitals for their "Partners in Quality" designation. Denver Health was also among the top 25% of U.S. hospitals to experience excellent performance on the federal CMS Readmission Reduction Program which reflects readmission rates for heart failure, pneumonia, joint replacement, myocardial infarction, and chronic lung disease.

The Denver Health Surgical Intensive Care Unit (SICU) won the silver Beacon Award for Excellence. The American Association of Critical-Care Nurses honored Denver Health's SICU as the 2017 recipient of the award for its exceptional patient care and healthy work environments. The criteria included leadership structures and systems, appropriate staffing and staff engagement, effective communication, knowledge management, learning and development, evidence-based practice and processes and outcome measurement.

The Centers for Disease Control and Prevention (CDC), Division of Tuberculosis Elimination named the **Denver Metro TB Program** as a CDC U.S. TB Elimination Champion for "making tremendous strides in expanding testing and treatment for latent TB infection."

Denver Health Chief Government Relations Officer **Elbra Wedgeworth** received the Women in Leadership and Management (WILMA) Award, named in honor of former state legislator and Denver First Lady, the Honorable Wilma J. Webb.

Anita Roberts, MS, RNC-OB, C-EFM, Nurse Program Manager, was honored with a Nightingale Award – Colorado's top nursing honor, from 266 nurses nominated in 2016-2017. Roberts was one of only 12 nurses in the state to receive the prestigious award.

ACCOLADES

Chief Govt. Relations Officer **Elbra Wedgeworth** was honored for her commitment to public service as Girl Scouts of Colorado celebrated 20 years of Amazing Women of Distinction during the 20th Anniversary Thin Mint Dinner. The Awardees were selected through voting by Women of Distinction, and are shining examples of corporate, civic and philanthropic leadership who serve as role models for female leaders of tomorrow.

Dr. Lilia Cervantes earned the Latina First Foundation's Unsung Heroine Award for her dedication to the Healthcare Interest Program, community service and research on improving care for Hispanic kidney failure patients.

Out of 2,455 physical therapy members statewide, Denver Health's pediatric physical therapist **Shawn Jackson** was named Clinical Instructor of the Year by the American Physical Therapy Association Colorado Chapter.

The National Association of Community Health Centers honored **Miranda Cvitkovich** with the Geiger Gibson Emerging Leaders Award for making remarkable impacts in women's care for the LGBT community at Denver Health's Family Health Centers and for patients who struggle with pelvic pain while pregnant or postpartum.

Marc Fedo, RN and **Jennifer Hudson**, RN were recognized by American Sentinel University and Colorado Hospital Association as 2016 "Colorado Health Care Stars." Both were awarded for being exceptional professionals making a difference in the Colorado health care system.

Now retired **Lynn Hoskins**, RN, was named a Public Health Champion by Living Portraits of African American Women, the Denver section of the National Council of Negro Women, and honored at an induction ceremony The Denver Post covered.

Dr. Beth Benish was named Teacher of the Year by the Student Registered Nurse Anesthetists.

The Center for Health Progress honored Denver Public Health RN Nursing Clinical Coordinator **Yumuriel Whitaker** with the Non-Physician Provider of the Year Award for her hard work toward giving compassionate, high-quality care to those suffering from tuberculosis and for her community leadership as part of the Mile High Black Nurses Association.

Executive Director of Denver Public Health **Dr. Bill Burman** was named as a Badass of the Year by the Harm Reduction Action Center for acting as a champion for harm reduction in the Denver Community.

Denver Health Community Affairs and Diversity and Inclusion Manager Olga Garcia was awarded the 2017 Lena L. Archuleta Community Service Award by the Denver Public Library for taking an active role in the community, making a cultural impact by promoting health services, programs and work beyond Denver Health.

ACCOLADES

Carol McDonald, Public Health Nursing Program Manager, was honored with an award after dedicating the last three years to developing a public health online training course. In collaboration with the Rocky Mountain Public Health Training Center, Public Health 101 in Colorado has come to fruition and the first modules are being released. These micro-learning, training materials will be available to anyone who desires to gain competency in their professional skills and allow access to more information about public health programs and activities in Colorado.

Thirty-six Denver Health physicians were named Top Doctors by 5280 Magazine in 2017. The following top doctors were nominated and voted on by their peers throughout the Denver metro area.

Dr. Kathryn Beauchamp – Neurological Surgery
Dr. Denis Bensard – Pediatric Surgery
Dr. Daniel Bessesen – Endocrinology Diabetes and Metabolism
Dr. Michael Breyer –Emergency Medicine
Dr. Jennie Buchanan – Medical Toxicology
Dr. Clay Cothren Burlew – Surgical Critical Care
Dr. Bill Burman – Public Health and General Preventive Medicine
Dr. Antonia Chiesa – Child Abuse Pediatrics
Dr. Christopher Ciarallo – Anesthesiology, Pediatric Anesthesiology
Dr. John Cunningham – Internal Medicine
Dr. Susan A. Davidson – Gynecologic Oncology
Dr. Ivor S. Douglas – Critical Care Medicine
Dr. Marcia Eustaquio – Otolaryngology
Dr. Monica Federico –Pediatric Pulmonology
Dr. Daniel Handel – Hospice and Palliative Medicine
Dr. Joel Hirsh – Rheumatology
Dr. Shea Hogan – Interventional Cardiology
Dr. Fernando Kim – Urology
Dr. John Kinsella– Neonatal-Perinatal Medicine
Dr. Claudia Kunrath – Pediatric Critical Care Medicine
Dr. Ryan Lawless – Colon and Rectal Surgery
Dr. Carlin Long – Cardiovascular Disease
Dr. Stuart Linas – Nephrology
Dr. Edward Ma – Epilepsy
Dr. Stephanie Malliaris – Plastic Surgery
Dr. Tyler Muffly – Female Pelvic Medicine and Reconstructive Surgery
Dr. Fredric Pieracci – Surgery, Thoracic and Cardiac Surgery
Dr. Kristine Rodrigues – Pediatrics

ACCOLADES

Dr. Genie Roosevelt – Pediatric Emergency Medicine
Dr. Adam Rosenberg – Neonatal-Perinatal Medicine
Dr. Joseph Schuller – Clinical Cardiac and Electrophysiology
Dr. Andrew Sirotnak – Child Abuse Pediatrics
Dr. Philip Stahel – Orthopedic Surgery
Dr. Christian Thurstone – Addiction Psychiatry
Dr. Kathryn Wells – Child Abuse Pediatrics
Dr. Robin Yasui – Geriatric Medicine

Every fall, **Denver Health and Denver Health Foundation leadership gather to thank those who make Denver Health's success possible**. The Annual Meeting is hosted and donated by longtime partner Fogo de Chão Brazilian Steakhouse, and it is an evening we look forward to all year long.

- The 2017 Employee of the Year went to two very special paramedics – Dave and Heather Edwards. Their commitment to raising money to purchase car seats for babies born at Denver Health is second to none.
- The 2017 Physician of the Year award was given to Dr. Steve Federico, General Pediatrics Director – a longtime champion of the Foundation.
- The 2017 Department of the Year went to the OB/GYN Midwives – a dedicated group who annually participate in Ride the Rockies, to benefit the Denver Health Foundation's Newborns in Need program.
- The 2017 Volunteer of the Year award went to former Foundation board member, Ann Block – who now volunteers regularly in the hospital's newborn nursery.
- Andrea Pollack, a former Denver Health Foundation board member, was awarded 2017 Donor of the Year. We are incredibly grateful to her tireless service to the success of the Foundation.

GRANTS & RESEARCH

The PROTUES study led by David Wyles, M.D., is a research study designed to find out if an FDA-approved device called "Proteus Ingestible Sensor" helps people remember to take their Hepatitis C medication. Participants in the study also have a prescription from their doctor for medicine to treat Hepatitis C. The participants are given over-encapsulated pills that transmit to a wearable patch that transmit to a mobile device (in this case an iPad). In addition to monitoring Hep C medication adherence, information about daily activity and rest, total number of steps per day, and an average heart rate data is provided to participants. If a patient forgets to take their medication they will be contacted on their phone to remind them. The goal of the study is to determine if the device effectively increases adherence to treatment of Hep C.

Denver Health began engaging disadvantaged patients in sharing patient-generated health data and patient-reported outcomes through a health information technology (COTS Health IT) project led by Susan Moore, Ph.D. This project, funded by the National Institutes of Health, seeks to demonstrate the feasibility of using patient-centered, commercial off-the-shelf health information technology solutions to collect patient generated health data (PGHD) and patient-reported outcomes from diverse, low-income disadvantaged populations. These data will then be reported in a way that will allow them to be made actionable and used to improve health care quality and delivery through integration into interoperable electronic health records, clinical information systems and big data infrastructures.

Denver Health is participating in the TRACK-TBI (Transforming Research & Clinical Knowledge in Traumatic Brain Injury) study, led by Mitchell Cohen, M.D. This is a prospective, observational study sponsored by the National Institute of Health, National Institute of Neurological Disorders and Stroke and Department of Health and Human Services and many other public and private partners. Denver Health is one of 18 sites in the country enrolling patients – since January 2018 we have contributed three patients to the over 3,000 enrolled nationwide. Although Denver Health only recently joined, this study has been enrolling across the country for nearly five years. This study aims to find relationships between hospital data, brain images, cognitive testing, and blood testing for the entire spectrum of traumatic brain injury from concussion to coma. With this data, we will establish new blood tests for TBI, new ways to measure progress following an injury, advance diagnosis of TBI and improve future clinical trial design.

Denver Health is partnering with a team of investigators at the University of Colorado School of Medicine on a research study funded by the Patient-Centered Outcomes Research Institute, called the Patient Centered Diabetes Group visit Methods trial (PARaDIGM), to test a new approach to helping patients with diabetes learn to better manage the disease. Led by Natalie Ritchie, Ph.D., the study will compare the effectiveness of patient-driven shared medical appointments to traditional group visits for diabetes. Patients will learn tips for daily self-care, including blood glucose monitoring, following a diabetes-friendly diet, engaging in regular

physical activity, and medication adherence. In the experimental group, patients will have the opportunity to focus on topics that are most important to them and learn from a multidisciplinary team of healthcare professionals, including a nurse educator, primary care provider, and behavioral health provider, as well as receive support from a peer mentor who has also learned to manage life with diabetes. Researchers will focus on evaluating whether participants feel better able to manage their diabetes ("diabetes distress"), which previous patients with diabetes said was most important to them.

Denver Health was awarded The Determining Effective Testing in Emergency Departments and Care Coordination on Treatment Outcomes for Hepatitis C Virus (DETECT-HCV) Trial from the National Institutes of Health, led by Drs. Jason Haukoos and Sarah Rowan. This multisite, randomized controlled trial will integrate Hepatitis C (HCV) screening into emergency department triage with a plan to enroll 50,000 patients to determine the best approach of identifying patients with HCV in this setting. The trial will also evaluate different linkage to care strategies to determine the optimal approach for connecting newly HCV-diagnosed patients to HCV treatment providers. The results of this large-scale project is expected to substantially improve our understanding of how to provide effective and efficient HCV screening and help determine the best way to connect patients to curative HCV treatment through ED settings devoted to caring for the nation's most underserved, at-risk populations.

Denver Health was awarded the Medication Assisted Treatment - Prescription Drug and Opioid Addiction (MAT PDOA) grant, a sponsored program led by Lisa Gawenus. This federal grant intends to address the national opioid misuse and abuse problems, and is aligned with the goals of the U.S. Department of Health and Human Services and the Substance Abuse and Mental Health Services Administration to help prevent initial opioid use, expand access to MAT and other services, and increase access to naloxone. Colorado is utilizing this grant to implement a Hub and Spoke model intended to improve and expand access to treatment services and develop a network of care for more effective treatment and access to services for years to come. These services include use of FDA-approved medications, counseling, and support for long-term recovery success. The goal is to decrease the use of opioids and risk of overdose in high-risk communities and to build long-term partnerships among local community organizations and government entities. Ultimately, success in this project will result in more comprehensive behavioral health service networks and community-based strategies that offer improved access to treatment, reduced prevalence of opioid use disorders, prevention of opioid dependence problems, and a reduced number of opioid overdoses and overdose deaths. in the future. The grant also promotes a truly integrated approach to health and behavioral health service delivery.

03

FINANCIAL STATEMENTS

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Denver Health and Hospital Authority
Statements of Net Position
Decemeber 31, 2017 and 2016

Assets and Deferred Outflows of Resources

	2017	2016
Current Assets		
Cash and cash equivalents	$ 47,385,642	$ 57,248,886
Restricted cash and cash equivalents	1,070	228,080
Patient accounts receivable, net of estimated uncollectibles of approximately $28,699,000 and $31,939,000 in 2017 and 2016, respectively	63,703,796	72,783,485
Due from other governmental entities	26,232,566	25,709,966
Due from City and County of Denver	7,810,430	2,438,897
Other receivables	20,930,915	15,698,709
Interest receivable	2,029,061	1,205,056
Due from and investment in discretely presented component units	3,875,448	1,837,697
Inventories	10,483,234	12,052,439
Prepaid expenses and other assets	9,227,846	10,524,144
Total current assets	191,680,008	199,727,359
Noncurrent Assets		
Notes receivable	15,432,000	44,393,015
Estimated third-party payor settlements receivable	5,561,710	4,258,361
Equity interest in joint venture	1,225,500	1,101,500
Restricted investments	21,668,767	48,189,266
Capital assets, net of accumulated depreciation	501,284,551	472,662,450
Long-term investments	267,378,285	204,241,242
Board-designated investments	36,500,000	36,500,000
Other long-term assets	2,150,234	2,228,162
Total noncurrent assets	851,201,047	813,573,996
Total assets	1,042,881,055	1,013,301,355
Deferred Outflows of Resources		
Accumulated change in fair value of hedging derivatives	12,394,299	13,499,981
Deferred outflows of resources related to pension benefits	25,708,519	33,370,998
Deferred outflow - acquisitions	329,667	415,667
Loss on refunding of debt	4,111,625	4,298,644
Total deferred outflows of resources	42,544,110	51,585,290
Total assets and deferred outflows of resources	$ 1,085,425,165	$ 1,064,886,645

Denver Health and Hospital Authority

Statements of Net Position (continued)

Decemeber 31, 2017 and 2016

Liabilities, Deferred Inflows of Resources and Net Position

	2017	2016
Current Liabilities		
Current maturities of bonds payable	$ 8,769,636	$ 11,206,429
Current maturities of capital leases	375,576	428,147
Current maturities of notes payable	4,551,429	1,193,507
Current maturities of program support liability	6,288,000	-
Medical malpractice liability	4,580,262	4,483,667
Accounts payable and accrued expenses	50,469,438	46,244,664
Accrued salaries, wages and employee benefits	37,278,563	38,291,813
Accrued compensated absences	28,966,549	25,274,146
Unearned revenue	21,500,368	22,727,784
Derivative interest rate swap liability	1,500,183	1,816,211
Accrued claims	10,905,000	9,235,000
Total current liabilities	175,185,004	160,901,368
Long-term Liabilities		
Long-term portion of liability for estimated third-party settlements	40,896,679	46,000,540
Long-term portion of compensated absences	137,992	253,758
Bonds payable, less current maturities	266,222,944	272,248,981
Capital lease obligations, less current maturities	428,003	792,322
Notes payable	56,170,045	81,200,711
Derivative interest rate swap liability	10,898,971	11,722,144
Program support liability	30,043,381	-
Net pension liability	120,035,324	119,914,669
Postemployment benefits	7,574,255	6,559,526
Total long-term liabilities	532,407,594	538,692,651
Total liabilities	707,592,598	699,594,019
Deferred Inflows of Resources		
Deferred inflows of resources related to pension benefits	5,849,237	7,428,789
Total liabilities and deferred inflows of resources	713,441,835	707,022,808
Net Position		
Net investment in capital assets	160,517,460	111,590,723
Unrestricted	211,465,870	246,273,114
Total net position	371,983,330	357,863,837
Total liabilities, deferred inflows of resource and net position	$ 1,085,425,165	$ 1,064,886,645

Denver Health and Hospital Authority

Statements of Revenues, Expenses and Changes in Net Position

Years Ended Decemeber 31, 2017 and 2016

	2017	2016
Operating Revenues		
Net patient service revenue	$ 545,380,959	$ 505,649,332
Capitation earned net of reinsurance expense	218,010,773	200,897,158
Medicaid disproportionate share and other safety net reimbursement	114,752,531	114,226,738
City and County of Denver payment for patient care services	30,777,300	30,777,300
Federal, state and other grants	66,049,764	61,762,927
City and County of Denver purchased services	24,776,739	23,111,964
Poison and drug center contracts	22,852,467	22,109,647
Other operating revenue	34,286,943	31,145,980
Total operating revenues	1,056,887,476	989,681,046
Operating Expenses		
Salaries and benefits	628,026,525	595,508,941
Contracted services and nonmedical supplies	193,422,000	207,393,321
Medical supplies and pharmaceuticals	125,253,288	107,970,210
Managed care outside provider claims	65,258,014	49,865,526
Depreciation and amortization	44,517,680	41,773,814
Total operating expenses	1,056,477,507	1,002,511,812
Operating income (loss)	409,969	(12,830,766)
Nonoperating Revenues (Expenses)		
Increase in equity in joint venture	124,000	13,000
Bond issuance costs	(682,046)	-
Distribution from discretely presented component unit	-	5,000,000
Interest income	9,633,043	8,776,396
Interest expense	(14,355,713)	(15,348,615)
Gain on forgiveness of note payable/receivable	8,135,483	-
Net increase in fair value of investments	9,287,858	4,548,798
Gain on disposition of capital assets	50,857	177,446
Total nonoperating revenues (expenses)	12,193,482	3,167,025
Income (loss) before capital contributions	12,603,451	(9,663,741)
Contributions Restricted for Capital Assets	1,516,042	2,951,762
Increase (decrease) in net position	14,119,493	(6,711,979)
Total Net Position, Beginning of Year	357,863,837	364,575,816
Total Net Position, End of Year	$ 371,983,330 *	$ 357,863,837

*The unrealized gains in our investment portfolio resulted in an increase in net position

04

CONTRACT RECONCILIATION

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CONTRACT RECONCILIATION

DENVER
PUBLIC HEALTH &
ENVIRONMENT

March 23, 2018

To: Peg Burnette, Chief Financial Officer, DHHA
From: Laurel Delmonico, Contract Manager, City and County of Denver
Subject: 2017 Denver Health Operating Agreement Contract Fiscal Close

Regarding the services outlined in the 2017 Operating Agreement provided by Denver Health and Hospital Authority (DHHA) to the City and County of Denver, we agree that the contract maximum exceeded actual expenditures by $333,974. Therefore, 2017 is closed without the need for a contract budget amendment. Please see Exhibit A for a breakdown of the shortfalls/overages.

Per recent audit recommendations, DHHA and the City agree that this memo and the exhibit A will be included in DHHA's 2017 annual report to the City.

This memo concludes the Operating Agreement fiscal year 2017 close out. The City deeply appreciates DHHA's partnership in serving Denver's most vulnerable populations, and your partnership in financial management and reporting.

Laurel Delmonico
Director of Administration, Contract Manager
Denver Department of Public Health and Environment

CONTRACT RECONCILIATION

Appendix A: 2017 Operating Agreement Contract Budget Variance by Appendix

Appendix	Description	2017 Final Approved Payment	2017 Type of Payment	2017 Final	Difference
A-1	Medically Indigent	$ 30,777,300	Flat	$ 30,777,300	$ -
A-2	Denver Fire - training services, personnel, and supplies	$ 487,000	Flat	$ 487,000	$ -
	Denver Fire - recruit training	$ 23,308	Actual Cost	$ 23,518	$ 210
	Englewood EMS Services	$ 1,050,600	Flat	$ 1,050,600	$ -
	EMS at DIA	$ 3,576,336	Actual Cost	$ 3,072,433	$ (503,903)
	Medical Direction consolidated services (DPD/DFD)	$ 105,082	Flat	$ 105,082	$ -
	Medical Direction and QA/QI Services for Call Takers	$ 97,489	Flat	$ 97,489	$ -
A-3	Public Health	$ 2,443,789	Actual Cost	$ 1,543,915	$ (899,874)
A-4	Denver CARES	$ 3,062,938	Actual Cost	$ 3,241,830	$ 178,892
A-5	Substance Treatment Services	$ 75,000	Flat	$ 75,000	$ -
A-6	Prisoner Care	$ 4,000,000	Actual Cost	$ 4,722,741	$ 722,741
A-7	Denver Health Medical Plan	n/a	n/a	n/a	n/a
A-8	Poison Center	$ 96,900	Flat	$ 96,900	$ -
A-9	Lab Services for DDPHE	$ 25,000	Actual Cost	$ 11,516	$ (13,484)
B-1	COSH and OUCH Line	$ 295,000	Actual Cost	$ 348,556	$ 53,556
B-2	NurseLine Services	$ 60,000	Flat	$ 60,000	$ -
B-3	Jail Medical	$ 11,502,299	Actual Cost	$ 11,757,158	$ 254,859
B-4	Denver Department of Human Services	$ 815,170	Actual Cost	$ 645,083	$ (170,088)
B-5	Head Start Medical Services	$ 500,000	Actual Cost	$ 448,306	$ (51,694)
B-6	Marijuana Research	$ 168,172	Flat	$ 175,511	$ 7,339
B-7	SANE	$ 200,000	Fee For Service	$ 186,890	$ (13,110)
B-7	DUI Blood Draws	$ 11,000	Fee For Service	$ 8,381	$ (2,619)
B-7	At-Risk Intervention & Mentoring (AIM)	$ 163,993	Flat	$ 163,993	$ -
B-7	South Westside Clinic	$ 1,200,000	Flat	$ 1,200,000	$ -
B-7	OME Relocation	$ 1,232,967	Flat	$ 1,232,967	$ -
B-7	Park Hill	$ 133,076	Flat	$ 152,594	$ 19,518
B-7	Competency Exams	$ 60,750	Fee For Service	$ 121,125	$ 60,375
			Total	$ 61,805,887	
			Contract Maximum	$ 62,139,861	
			Difference	$ (333,974)	

CONTRACT RECONCILIATION

Status Update on Surplus Projects and Items Approved Outside of the Executed Contracts' Scope of Work

Contract Year	Date Approved	Project Description	Amount	Status Update / Result
2015	Mar. 2016	CARES Quiet Room Remodel	$400,000	Completed May 2016.
2015	Mar. 2016	340B Lobbying Effort	$15,000	Ongoing.
2015	Mar. 2016	Ambulatory Care Center Feasibility Study	$75,000	Completed July 2017.
2015	Mar. 2016	Office of the Medical Examiner Relocation Payment	$1,232,967	Payment applied against outstanding P&I balance.
2015	Mar. 2016	ED Remodel – DUI Blood Draws	$57,504	November 2016.
2016	May 2017	Physician Loan Repayment Program	$60,000	Paid to providers in 2017. Both currently retained and working for DH.
2016	May 2017	Office of the Medical Examiner Relocation Payment	$18,714	Payment applied against outstanding P&I balance.
2016	May 2017	Marijuana Hotline Pilot Program	$15,400	Pilot program concluded and report submitted to DDPHE. Completed 93 calls in first 10 weeks.
2015	Dec. 2017	Physician Loan Repayment Program	$80,000	Implementing in 2018.
2015	Dec. 2017	Denver CARES Case Coordinator Pilot Program	$54,943	Position hired in January 2018 and pilot being implemented.
2015	Dec. 2017	Denver CARES Replacement Van Purchase	$168,837	Purchasing in 2018, expected by Q4.
2015	Dec. 2017	Substance Treatment and Education Program (STEP) Supplemental Funding	$89,220	Funding to be used in Q3-Q4 2018.
2017	Jan. 2018	Vital Records Online Ordering System	$109,000	Purchasing and implementing in 2018. Expected to be online by Q2.
2017	Jan. 2018	Director of Epidemiology and Informatics position 0.30 FTE Funding	$56,093	Position hired and funding to be used in 2018.

05

UNCOMPENSATED CARE

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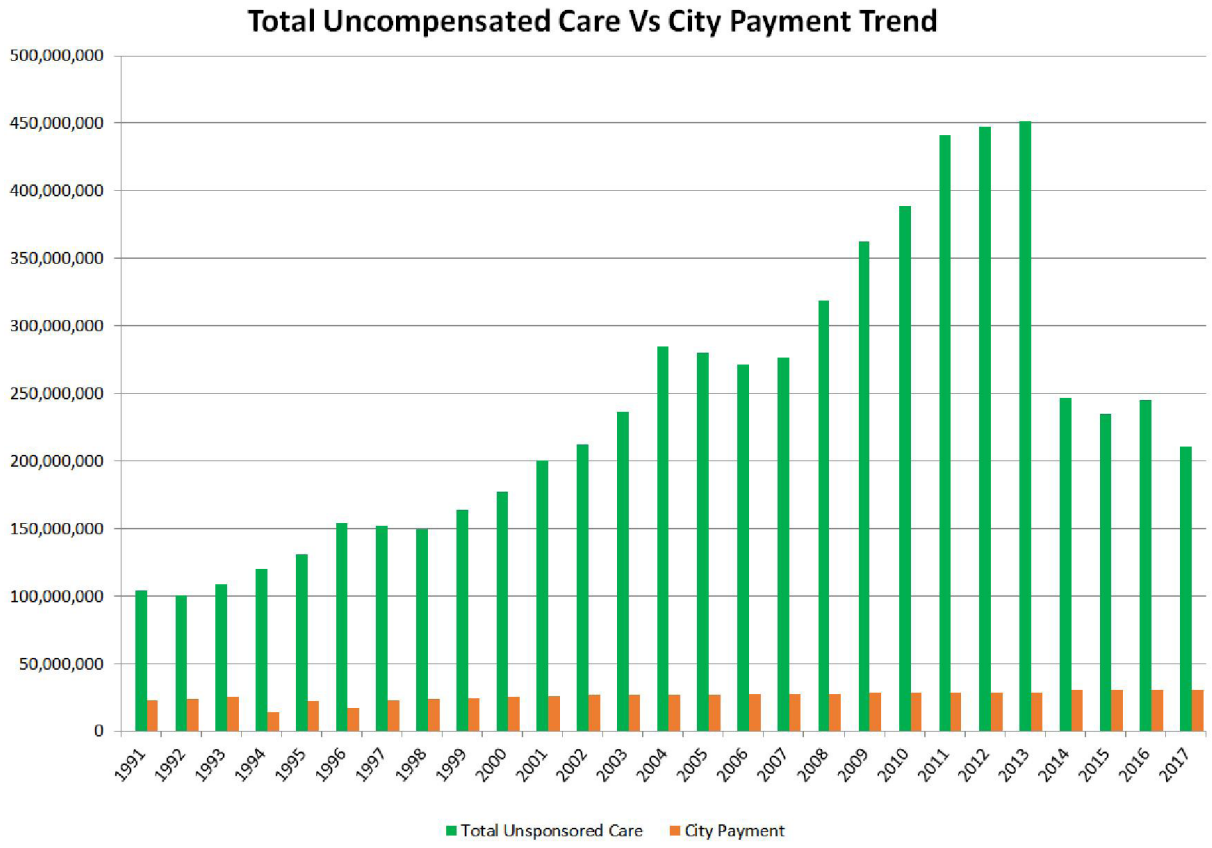
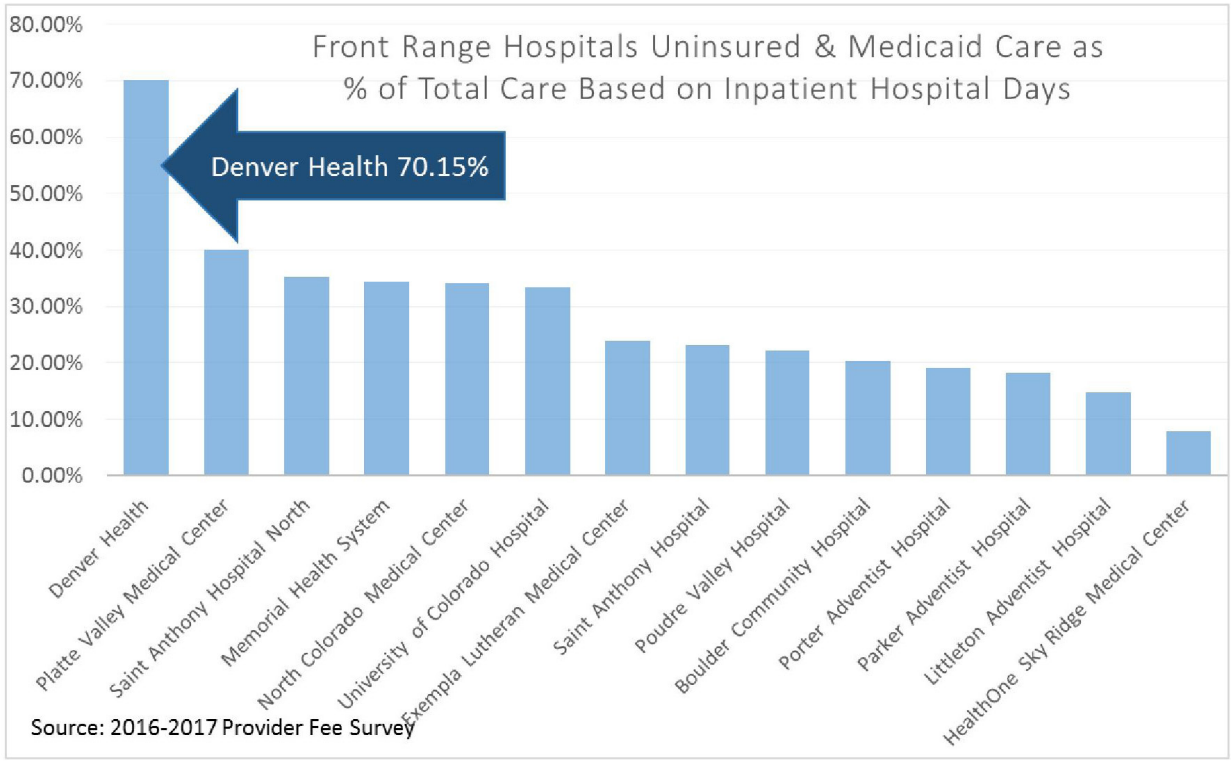
UNCOMPENSATED CARE





Source: 2016-2017 Provider Fee Survey

06

DENVER HEALTH PERFORMANCE

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Article V

5.1 Annual Report of the Denver Health Hospital Authority to the City

The Authority shall deliver a written annual report to the City within six months of the ends of its Fiscal Year, commencing with Fiscal Year 1998, which report shall include:

A. The latest financial statements of the Authority which have been audited by an independent auditing firm selected by the Authority.

RESPONSE:

The Authority has provided the City with the appropriate financial statements which have been audited by an independent auditing firm. The 2017 financial statements are presented in Section II of this report.

B. An executive summary of the results of all regulatory and accreditation surveys with respect to the Authority which have been completed during such last Fiscal Year.

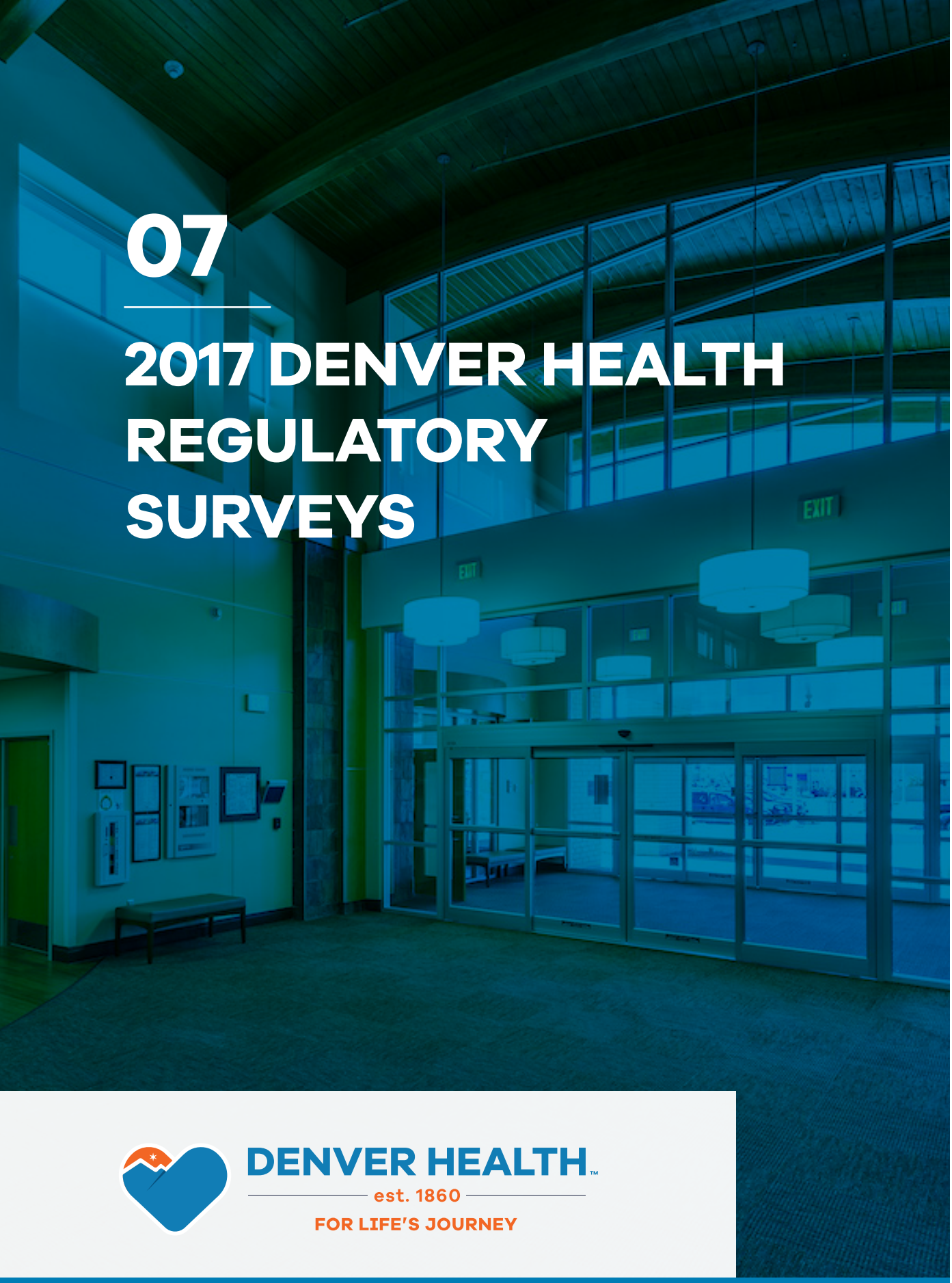
RESPONSE:

A summary of the results of all regulatory and accreditation surveys with respect to the Authority is presented on the next page.

C. A report of the disposition of all matters regarding the Authority that have been referred to the Liaison by the Mayor or any member of City Council during such Fiscal Year.

RESPONSE:

All matters have been promptly resolved by the Liaison, Elbra Wedgeworth.



07

2017 DENVER HEALTH REGULATORY SURVEYS

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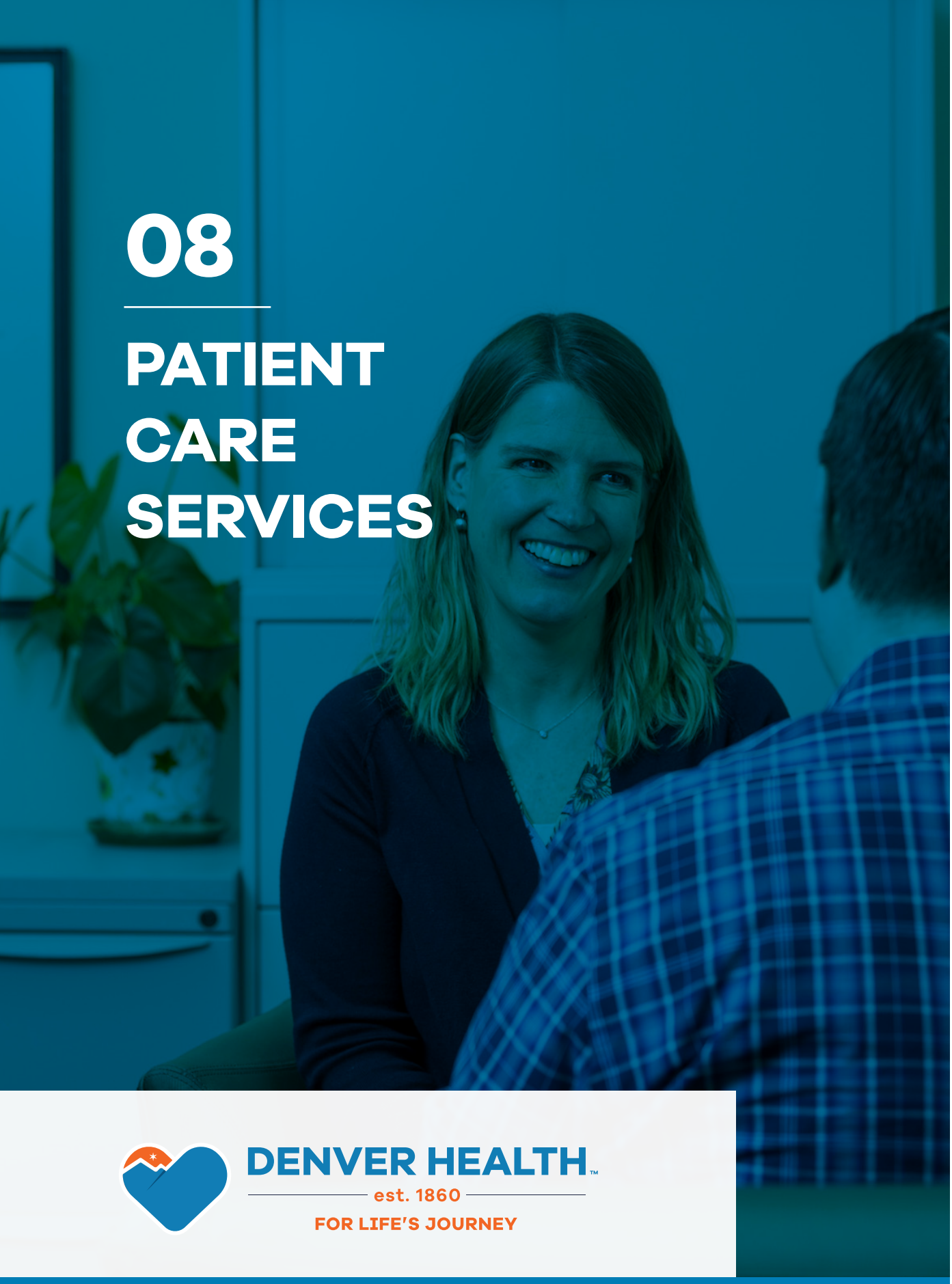
DENVER HEALTH REGULATORY SURVEYS 2017

Organization	DH Program/Site or Issue Surveyed	Survey/ Inspection Date	Term
CDPHE/MQSA	Denver Health Mammography and Mobile Mammography	10/20/17	1 year
Colorado State Board of Pharmacy	Bruce Randolph Middle School, SBHC	12/13/17	1 year
Colorado State Board of Pharmacy	Denver C.A.R.E.S	12/29/17	1 year
Colorado State Board of Pharmacy	Denver Health Acute Care RX	05/19/17	1 year
Colorado State Board of Pharmacy	Denver Health Central Fill	10/01/17	1-2 years
Colorado State Board of Pharmacy	Eastside Pharmacy	12/01/17	1-2 years
Colorado State Board of Pharmacy	ID Pharmacy	11/01/17	1-2 years
Colorado State Board of Pharmacy	Kepner Midde SBHC	11/01/17	1 year
Colorado State Board of Pharmacy	Kunsmiller C.A.A. SBHC	12/27/17	1 year
Colorado State Board of Pharmacy	LaCasa	03/01/17	1-2 years
Colorado State Board of Pharmacy	Lake Middle SBHC	03/10/17	1 year
Colorado State Board of Pharmacy	Lowry Pharmacy	06/01/17	1-2 years
Colorado State Board of Pharmacy	Montbello Pharmacy	04/01/17	1-2 years
Colorado State Board of Pharmacy	Pena Pharmacy	11/01/17	1-2 years
Colorado State Board of Pharmacy	Place Bridge Academy Campus SBHC	12/14/17	1 year
Colorado State Board of Pharmacy	Primary Care Pharmacy	11/01/17	1-2 years
Colorado State Board of Pharmacy	South High SBHC	12/08/17	1 year

DENVER HEALTH REGULATORY SURVEYS

Organization	DH Program/Site or Issue Surveyed	Survey/ Inspection Date	Term
Denver Fire Department	190 W 6th Ave- Rita Bass	07/21/17	1 year
Denver Fire Department	301 W 6th Ave- Pavilion G	07/21/17	1 year
Denver Fire Department	530 N Acoma St	07/27/17	1 year
Denver Fire Department	550 N Acoma St	07/21/17	1 year
Denver Fire Department	600 N Acoma St- Acoma Parking Garage	07/21/17	1 year
Denver Fire Department	601 Broadway - Administration	07/21/17	1 year
Denver Fire Department	601 N Acoma- Bannock Parking Garage	07/28/17	1 year
Denver Fire Department	605 N Bannock St- Pavilion H	07/13/17	1 year
Denver Fire Department	645 N Bannock St- Engineering	07/13/17	1 year
Denver Fire Department	655 N Bannock St- Pavilion I	07/13/17	1 year
Denver Fire Department	660 N Bannock St- Administration	07/21/17	1 year
Denver Fire Department	660 N Delaware St- Delaware Parking Garage	07/27/17	1 year
Denver Fire Department	667 N Bannock St- Pavilion K	07/13/17	1 year
Denver Fire Department	677 N Delaware St- Boiler House	07/21/17	1 year
Denver Fire Department	700 N Delaware St- Davis Pavilion- U05	07/12/17	1 year
Denver Fire Department	700 N Delaware St- Davis Pavilion- U06	07/12/17	1 year
Denver Fire Department	710 N Delaware St- Bond Trailer	07/18/17	1 year
Denver Fire Department	723 N Delaware St- Pavilion M	07/12/17	1 year
Denver Fire Department	777 N Bannock St- Pavilion A- U01	07/11/17	1 year
Denver Fire Department	777 N Delaware St- Receiving Dock	07/21/17	1 year
Denver Fire Department	780 N Delaware St- Pavilion B- U02	07/11/17	1 year
Denver Fire Department	790 Delaware St- Pavilion C- U10	07/12/17	1 year
Joint Commission	Hospital	5/2 - 5/6, 2017	3 years
Office of Behavioral Health (Controlled Substance License)	OBHS 667 Bannock Street (Methadone program)	04/24/17	1 year
Signal Behavioral Health Network	Denver Cares 1155 Cherokee St	06/08/17	1 year
VFC / CDPHE Site Visit	Denver School Based Health / Denver Health Immunization Program	07/19/17	2 years
VFC / CDPHE Site Visit	LaCasa FHC	05/30/17	2 years
VFC / CDPHE Site Visit	Lowry FHC	08/11/17	2 years
VFC / CDPHE Site Visit	Park Hill FHC	08/11/17	2 years
VFC / CDPHE Site Visit	Westside Pediatric and Teen	08/24/17	2 years
VFC / CDPHE Site Visit	Westwood FHC	08/22/17	2 years



08

PATIENT CARE SERVICES

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1.5 Performance Criteria

A. The Authority shall submit an annual report to the City which includes the data indicated below in the Performance Criteria tables in 1.5G and H for the year just ended, as well as the two previous fiscal years, by May 1 following the reporting year.

B. The criteria will focus on data collected reported out of the Denver Health system.

C. The criteria will focus on appropriate access and outcome of services provided.

Contract	2014	2015	2016	2017	Source
Denver Health Medicaid Choice Average Monthly Enrollment	63,061	68,361	75,767	84,984	Key Indicators
Inpatient Admissions	25,206	25,532	24,919	24,552	Key Indicator Report (KIR) - Admissions by Hospital Service
Inpatient Days	114,747	118,287	125,225	127,093	KIR - Census Days by Hospital Service
Total Emergency Room Encounters	82,975	86,601	83,874	83,115	KIR - Emergency Medical Services
Adult Urgent Care Visits	34,662	39,139	38,916	37,382	KIR- AUCC
ER/Cost/Visit	$ 831	$ 927	$ 985	$ 1,267	Cost Report
Top 25 DRGs for MI population	See Final DRG Table tab				MI Report in Epic
NICU days	4,915	5,357	5,008	5,667	Finance Patient Day Report
CT Scans	19,194	21,633	38,874	51,780	MMIR
MRIs	8,108	8,881	9,828	11,205	MMIR
Outpatient Surgeries	6,378	6,924	7,248	7,820	MMIRS- Ancillary Srvc-Op. Room- O/P Operations
OP Pharmacy Cost/patient	$ 60	$ 73	$ 67	$ 71	Cost Report
Ambulatory Care Encounters					
Ambulatory Care Center	133,986	148,449	192,508	184,337	ACS Divisional Report
Webb Center for Primary Care	68,809	70,108	63,613	68,267	ACS Divisional Report
Gipson Eastside Family Health Center	44,915	45,385	41,690	44,521	ACS Divisional Report
Sandos Westside Family Health Center	69,907	69,135	62,039	65,850	ACS Divisional Report
Lowry Family Health Center	23,083	34,428	29,949	34,065	ACS Divisional Report
Montbello Health Center	21,729	22,589	22,709	27,722	ACS Divisional Report
Park Hill Family Health Center	17,751	17,786	17,972	18,927	ACS Divisional Report
La Casa/Quigg Newton Family Health Center	21,538	20,996	17,911	18,640	ACS Divisional Report
Westwood Family Health Center	16,269	19,323	16,546	16,446	ACS Divisional Report
Federico F. Pena Southwest Family Health Center			16,008	33,806	ACS Divisional Report
Other	68,415	79,023	70,172	97,866	Dental, School Based Clinics, Family Crisis Center
OP Behavioral Health Visits	123,861	166,963	210,788	224,574	ACS Divisional Report / Mental Health / Substance Abuse
TOTAL AMBULATORY ENCOUNTERS	**494,963**	**532,139**	**761,905**	**835,021**	**MMIR**

D. Several quality assurance reports are done to meet external payment or funding standards. The findings and assessment of quality assurance programs will be provided annually as well as the status of any recommended improvements.

Response:
The landscape of quality measures and pay-for-performance programs change multiple times per year. We have incorporated the stable and most important measures into the table below. In 2017, Denver Health was recognized by the Joint Commission as one of only 10 Colorado hospitals for their "Pioneers in Quality" designation . Denver Health was also among the top 25% of U.S. hospitals to experience excellent performance on the federal CMS Readmissions Reduction Program which reflects readmission rates for heart failure, pneumonia, joint replacement, myocardial infarction, and chronic lung disease.

E. Except when otherwise noted, all criteria are based on active patients in the Denver Health system, which is defined as a patient seen in a primary care clinic at least once in the past 18 months.

Response:
No response needed.

F. As changes in circumstances occur, such as changes in demographics and population, the Denver Health Authority will change performance criteria to the City as agreed upon by the City.

Response:
No response needed.

G. Performance Criteria- Clinical (I-V numbering follows the Authority's Annual Report)

Response:
See following table.

H. Performance Criteria- Ambulatory Encounters (1.5 numbering follows the Authority's Annual Report)

Response:
See following table.

Number	Contract Criterion	2015	2016	2017	GOAL
1.5I	**Childhood Immunization Rate**	85%	89%	87%	At least 80% of patients who have their third birthday in the measurement year, initiated care prior to their second birthday, and are active Denver Health patients will have received four DPT, three polio, one MMR, three HIB, three Hepatitis B, one Varicella, and four Pneumococcal immunizations (following guidelines of the CDC Advisory Committee on Immunization Practices).
1.5J	**Percent Women Entering Prenatal Care:**				
	1st Trimester	78%	80%	74%	70% of women will begin prenatal care within the 1st Trimester
1.5L	**Patient Satisfaction**				
	Community Health Service Adults	74.1%	78.0%	78.6%	71% of adults seen in primary care clinics will respond with a nine or a ten ("top box") for "Overall provider rating."
	Community Health Service Pediatrics	79.7%	79.6%	84.1%	78% of pediatrics seen in primary care clinics will respond with a nine or a ten ("top box") for "Overall provider rating."
	Denver Health Medical Center	74.2	75.5%	77.6%	73% of hospitalized patients will respond with a 9 or a 10 ("top box") for overall patient satisfaction
1.5M	**Breast Cancer Screening**	60%	62%	59%	65% of active (≥ one primary care visit in past 18 months) female patients age 51 to 74 years will have a mammogram in the past two years.
1.5N	**Cervical Cancer Screening**	79%	71%	71%	80% of active (≥ 1 primary care visit in past 18 months) female patients age 24-64, with a PAP test in the past three years or a PAP+HPV in the past five years (age 30-64)
1.5O	**Adolescent Vaccinations**	89%	88%	87%	80% of active (≥ 1 primary care visit in past 18 months) adolescent patients, age 13-17, will have both Tdap and MCV4 vaccinations.
1.5P	**Diabetes Monitoring**				A "Diabetic patient" for the diabetes measures is defined as a patient who has had at least two visits to a primary care clinic in the last year and at least one diagnosis code for diabetes in the last 18 months.
	Kidney Function	75%	72%	68%	75% of diabetic patients will have appropriate monitoring of kidney function.

Number	Contract Criterion	2015	2016	2017	GOAL
	(Monitoring Nephropathy)				
	Diabetes-percent of diabetics with HBA1c < 9	72%	70%	71%	70% of Diabetic patients will have an HBA1c < 9
	Cardiovascular Disease Prevention	78%	78%	88%	50% of Diabetic patients will be treated with statin medication
1.5Q	**Hypertension Control**	68%	65%	65%	70% of patients identified with hypertension will have their blood pressure under control as defined by current standards.
1.5R	**Smoking screening Tobacco Use Status:Advise or Refer**	88%	93%	95%	Maintain smoking assessment, advice and refer for 85% of adults.
1.5S	**Flu Vaccinations**	50%	51%	51%	60% of patients, six months of age or older who have had a visit to a primary care clinic during the influenza season and who do not have a contraindication to vaccination will receive influenza vaccinations.
1.5T	**Survival with Trauma**				Survival rate for blunt and penetrating trauma will be maintained within 5% of 2009 experience:
	Blunt with DOAs	96.7%	96.1%	97.1%	Survival rate for blunt trauma will be maintained within 5% of 2009 experience, which is 96.3%.
	Blunt without DOAs	97.7%	97.2%	97.8%	Survival rate for blunt trauma will be maintained within 5% of 2009 experience, which is 97.1%.
	Penetrating with DOAs	89.0%	89.6%	89.5%	Survival rate for penetrating trauma will be maintained within 5% of 2009 experience which is 86.8%.
	Penetrating without DOAs	97.3%	94.8%	95.7%	Survival rate for penetrating trauma will be maintained within 5% of 2009 experience which is 91.9%.
1.5U	**Joint Commission Quality Measures**				
	Early Elective Delivery 37-39 weeks gestation	1.7%	1.5%	0%	The rate of elective delivery between 37-39 weeks as defined by the Joint Commission measure PC-01 will be maintained at 1.5% or lower
1.5V	**Hospital Acquired Infection Rates**				

Number	Contract Criterion	2015	2016	2017	GOAL
	Adult Critical Care Central Line-Associated Blood Stream Infections (CLABSI)	Same	Medical ICU: same Trauma ICU: worse	Same	Risk-adjusted rate that is the same or better than the national rate on the most recent CDPHE report.

1.5M Comment: We have continued to perform below target for breast cancer screening. Some of our individual clinics exceed the 65% goal, including Westwood Family Medicine and Westside Adult Internal Medicine. This metric is one of the ambulatory strategic quality metrics for 2018 that impact the DH Management Incentive Plan.

1.5N Comment: We have continued to perform below target for cervical cancer screening. None of our individual clinics are meeting the 80% target. The cancer screening quality improvement workgroup will be charged with developing standard work for clinics to implement related to cervical cancer screening.

1.5P Comment: We have continued to perform below target for diabetic kidney function monitoring. We will begin including this measure on internal, monthly, clinic- and provider-specific reports in 2018.

1.5Q Comment: We have continued to perform below target for hypertension control. Only one individual clinic is meeting the 70% target: Westwood Family Medicine. This metric is one of the ambulatory strategic quality metrics for 2018 that impact the DH Management Incentive Plan.

1.5S Comment: We have experienced declining performance related to flu vaccination across all patients six months of age or older. Within our pediatric population (6 mo – 17 years), we achieved vaccination in 57% of patients. The goal was exceeded in several of our clinics including the Webb and Westside Pediatric clinics, the Westside Adult Clinic, the HIV early intervention services clinic and our intensive outpatient clinic for patients with frequent hospitalization. Performance is lowest (42%) in our adult (18 – 49 years) population. The 2017-2018 flu season involved a text messaging and patient portal (MyChart) campaign aimed at increasing vaccine uptake.

I. Denver Health Medical Center's adjusted inpatient mortality will be in the top 20 percent of all academic health centers nationally as measured by Vizient, a collaboration of approximately 150 academic health centers.

Response:

Denver Health's inpatient mortality has been consistently in the best quartile of Vizient hospitals throughout 2016 and into 2017. See graph below which represents the observed to expected mortality rate across 147 academic health centers in the U.S. Denver Health is ranked #16 with significantly lower mortality than expected.

	Relative Performance	Denom (Cases)	Obs/Exp Ratio	Median	Rank
Current Quarter		5,715	0.81	0.94	36/147
Recent Year		22,812	0.74	0.97	16/147

	Current Quarter	Last Quarter	Recent Year
Cases (denom.)	5,715	5,729	22,812
Observed Deaths	73	65	274
Expected Deaths	89.03	89.56	366.12
Observed Mortality (%)	1.28	1.13	1.20
Expected Mortality (%)	1.56	1.56	1.60
Observed/Expected Ratio	0.81	0.72	0.74

J. Denver Health will maintain appropriate accreditation for the major national accrediting organizations as a measure of quality care.

Response:

Denver Health Medical Center including all campus based ambulatory services, community health clinics, the clinical laboratory, and behavioral health services have all maintained full accreditation by the Joint Commission and hold active licenses for all services from the State of Colorado.

K. Denver Health will maintain national Residency Review Committee accreditation for its training programs.

Response:
All training programs maintained national Residency Committee accreditation.

L. Denver Health will include in the May 1 annual report, a schedule of the number of patients treated during the reporting year by county, gender and ethnicity. Denver Health will develop a report of the same data by census tract or zip code for Denver users. A separate report will be prepared detailing the same information for the homeless.

Response:
See charts on the following pages.

2017 Unduplicated Users and Patient Visits by Colorado County

County	Users	Visits
Adams	19,928	75,587
Alamosa	26	116
Arapahoe	19,119	72,315
Archuleta	10	15
Baca	5	5
Bent	7	28
Boulder	1,656	4,569
Broomfield	121	329
Chaffee	29	68
Clear Creek	112	302
Conejos	9	37
Costilla	6	10
Crowley	6	20
Custer	4	17
Delta	17	19
Denver	148,699	690,705
Douglas	2,024	6,643
Eagle	171	360
El Paso	950	2,310
Elbert	75	285
Fremont	47	145
Garfield	69	122
Gilpin	53	142
Grand	779	2,125
Gunnison	17	30
Hinsdale	1	1
Huerfano	7	37
Jackson	7	21
Jefferson	16,190	65,662
Kit Carson	17	32
La Plata	36	95
Lake	22	62
Larimer	460	860
Las Animas	34	75
Lincoln	24	82
Logan	43	146
Mesa	58	90
Moffat	25	41
Montezuma	8	11
Montrose	21	47
Morgan	79	265
Otero	24	79

County	Users	Visits
Ouray	1	1
Park	124	499
Phillips	12	28
Pitkin	19	38
Prowers	14	39
Pueblo	237	755
Rio Blanco	1	1
Rio Grande	18	70
Routt	62	130
Saguache	13	23
San Juan	1	4
San Miguel	4	6
Sedgwick	9	26
Summit	134	330
Teller	39	88
Washington	17	37
Weld	864	2,355
Yuma	19	50

Total Patient Visits	**928,390**
Total Unduplicated Users	**212,583**

2017 Unduplicated Users and Patient Visits by Denver County Zip Code

Zip Code	Users	Visits
80201	185	1,214
80202	1,738	7,066
80203	4,182	17,164
80204	19,163	91,342
80205	10,052	47,080
80206	2,211	9,417
80207	4,423	23,133
80208	11	21
80209	1,862	7,174
80210	2,097	8,455
80211	6,562	31,519
80212	2,076	9,747
80216	5,106	25,170
80217	39	141
80218	3,018	13,212
80219	29,279	145,391
80220	5,032	23,040
80222	2,788	12,482
80223	7,513	38,919
80224	2,536	11,936
80227	3,063	13,951
80230	939	4,201
80231	4,194	17,396
80235	609	3,124
80236	3,393	15,802
80237	1,519	6,876
80238	916	3,840
80239	14,398	58,969
80243	2	9
80244	4	5
80246	1,411	5,631
80247	3,317	15,455
80248	5	34
80249	4,989	21,489
80250	43	224
80251	2	3
80252	1	4
80257	1	2
80261	5	38
80263	3	8
80264	1	1
80265	2	6
80266	3	4
80271	1	2
80281	1	1
80290	3	6
80294	1	1

Total Visits		**690,705**
Total Unduplicated Users		**148,699**

2017 Unduplicated Users and Patient Visits by Gender and Race*

Gender	Race	Users	Total Visits
F	African-American	14,155	75,859
F	Amer/Alaskan Native	505	2,910
F	Asian	3,919	18,988
F	Hispanic	52,822	278,344
F	Native-Hawaiian	64	247
F	Other	2,540	10,126
F	Oth-Pacific-Islander	96	314
F	Unknown	6,538	15,317
F	White-Caucasian	28,781	131,910
Female Total		109,420	534,015
M	African-American	13,593	55,427
M	Amer/Alaskan Native	459	2,384
M	Asian	2,920	11,655
M	Hispanic	43,423	173,917
M	Native-Hawaiian	51	169
M	Other	2,340	7,972
M	Oth-Pacific-Islander	77	163
M	Unknown	7,100	14,500
M	White-Caucasian	33,191	128,160
Male Total		103,154	394,347

Grand Total		212,574	928,362
* Table uses Derived Race as identified by Epic			

2017 Homeless Users, Visits and Charges				
Year	**Gender**	**Users**	**Visits**	**Charges**
2017	Female	1,869	5,188	$ 26,619,612
2017	Male	6,055	23,368	$ 114,117,650
Grand Total		**7,924**	**28,556**	**$ 140,737,262**
* Visits represent current process in Epic for tracking homeless population.				

2016 Homeless Users, Visits and Charges*				
Year	**Gender**	**Users**	**Visits**	**Charges**
2016	Female	1,759	10,407	$ 19,580,410.36
2016	Male	5,738	47,148	$ 99,025,541.70
2016	Unknown	5	19	$ 138,446.06
Grand Total		**7,503**	**57,574**	**$ 118,744,398.13**
* Table is an annual projection using new Epic health record data from 4/8/2016 - 12/31/2016.				

Top 25 DRG's for Medically Indigent Population 2017

DRG#	DRG NAME	Total
640	MISCELLANEOUS DISORDERS OF NUTRITION, METABOLISM , FLUIDS AND ELECTROLYTES WITH MCC	214
871	SEPTICEMIA OR SEVERE SEPSIS WITHOUT MV >96 HOURS WITH MCC	81
872	SEPTICEMIA OR SEVERE SEPSIS WITHOUT MV >96 HOURS WITHOUT MCC	57
885	PSYCHOSES	57
291	HEART FAILURE AND SHOCK WITH MCC	53
917	POISONING AND TOXIC EFFECTS OF DRUGS WITH MCC	30
682	RENAL FAILURE WITH MCC	25
854	INFECTIOUS AND PARASITIC DISEASES WITH O.R. PROCEDURE WITH CC	23
897	ALCOHOL, DRUG ABUSE OR DEPENDENCE WITHOUT REHABILITATION THERAPY WITHOUT MCC	23
470	MAJOR JOINT REPLACEMENT OR REATTACHMENT OF LOWER EXTREMITY WITHOUT MCC	22
742	UTERINE AND ADNEXA PROCEDURES FOR NON-MALIGNANCY WITH CC/MCC	21
247	PERCUTANEOUS CARDIOVASCULAR PROCEDURES WITH DRUG-ELUTING STENT WITHOUT MCC	20
340	APPENDECTOMY WITH COMPLICATED PRINCIPAL DIAGNOSIS WITHOUT CC/MCC	19
853	INFECTIOUS AND PARASITIC DISEASES WITH O.R. PROCEDURE WITH MCC	19
794	NEONATE WITH OTHER SIGNIFICANT PROBLEMS	18
280	ACUTE MYOCARDIAL INFARCTION, DISCHARGED ALIVE WITH MCC	17
775	VAGINAL DELIVERY WITHOUT COMPLICATING DIAGNOSES	17
683	RENAL FAILURE WITH CC	16
774	VAGINAL DELIVERY WITH COMPLICATING DIAGNOSES	16
617	AMPUTATION OF LOWER LIMB FOR ENDOCRINE, NUTRITIONAL AND METABOLIC DISORDERS WITH CC	13
287	CIRCULATORY DISORDERS EXCEPT AMI, WITH CARDIAC CATHETERIZATION WITHOUT MCC	12
331	MAJOR SMALL AND LARGE BOWEL PROCEDURES WITHOUT CC/MCC	12
378	G.I. HEMORRHAGE WITH CC	12
391	ESOPHAGITIS, GASTROENTERITIS AND MISCELLANEOUS DIGESTIVE DISORDERS WITH MCC	12
392	ESOPHAGITIS, GASTROENTERISTIS AND MISCELLANEOUS DIGESTIVE DISORDERS WITHOUT MCC	12

Top 25 DRG's for Medically Indigent Population 2016

DRG#	DRG NAME	Total
640	MISC DISORDERS OF NUTRITION,METABOLISM,FLUIDS/ELECTROLYTES W MCC	84
885	PSYCHOSES	53
872	SEPTICEMIA OR SEVERE SEPSIS W/O MV >96 HOURS W/O MCC	46
871	SEPTICEMIA OR SEVERE SEPSIS W/O MV >96 HOURS W MCC	38
683	RENAL FAILURE W CC	28
897	ALCOHOL/DRUG ABUSE OR DEPENDENCE W/O REHABILITATION THERAPY W/O MCC	28
603	CELLULITIS W/O MCC	27
470	MAJOR JOINT REPLACEMENT OR REATTACHMENT OF LOWER EXTREMITY W/O MCC	23
392	ESOPHAGITIS, GASTROENT & MISC DIGEST DISORDERS W/O MCC	20
742	UTERINE & ADNEXA PROC FOR NON-MALIGNANCY W CC/MCC	19
854	INFECTIOUS & PARASITIC DISEASES W O.R. PROCEDURE W CC	18
917	POISONING & TOXIC EFFECTS OF DRUGS W MCC	16
101	SEIZURES W/O MCC	14
286	CIRCULATORY DISORDERS EXCEPT AMI, W CARD CATH W MCC	14
390	G.I. OBSTRUCTION W/O CC/MCC	14
682	RENAL FAILURE W MCC	14
775	VAGINAL DELIVERY W/O COMPLICATING DIAGNOSES	14
378	G.I. HEMORRHAGE W CC	13
418	LAPAROSCOPIC CHOLECYSTECTOMY W/O C.D.E. W CC	13
494	LOWER EXTREM & HUMER PROC EXCEPT HIP,FOOT,FEMUR W/O CC/MCC	13
247	PERC CARDIOVASC PROC W DRUG-ELUTING STENT W/O MCC	12
812	RED BLOOD CELL DISORDERS W/O MCC	12
340	APPENDECTOMY W COMPLICATED PRINCIPAL DIAG W/O CC/MCC	10
439	DISORDERS OF PANCREAS EXCEPT MALIGNANCY W CC	10
482	HIP & FEMUR PROCEDURES EXCEPT MAJOR JOINT W/O CC/MCC	10
853	INFECTIOUS & PARASITIC DISEASES W O.R. PROCEDURE W MCC	10
957	OTHER O.R. PROCEDURES FOR MULTIPLE SIGNIFICANT TRAUMA W MCC	10

Top 25 DRG's for Medically Indigent Population 2015

DRG#	DRG NAME	Total
640	DISORDERS OF NUTRITION,METABOLISM,FLUIDS/ELECTROLYTES W MCC	120
872	SEPTICEMIA OR SEVERE SEPSIS W/O MV 96+ HOURS W/O MCC	17
871	SEPTICEMIA OR SEVERE SEPSIS W/O MV 96+ HOURS W MCC	17
682	RENAL FAILURE W MCC	10
885	PSYCHOSES	9
470	MAJOR JOINT REPLACEMENT OR REATTACHMENT OF LOWER EXTREMITY W/O M	8
392	ESOPHAGITIS, GASTROENT & MISC DIGEST DISORDERS W/O MCC	8
291	HEART FAILURE & SHOCK W MCC	7
438	DISORDERS OF PANCREAS EXCEPT MALIGNANCY W MCC	6
683	RENAL FAILURE W CC	6
685	ADMIT FOR RENAL DIALYSIS	5
494	LOWER EXTREM & HUMER PROC EXCEPT HIP,FOOT,FEMUR W/O CC/MCC	5
641	DISORDERS OF NUTRITION,METABOLISM,FLUIDS/ELECTROLYTES W/O M	5
433	CIRRHOSIS & ALCOHOLIC HEPATITIS W CC	4
460	SPINAL FUSION EXCEPT CERVICAL W/O MCC	4
981	EXTENSIVE O.R. PROCEDURE UNRELATED TO PRINCIPAL DIAGNOSIS W MCC	4
189	PULMONARY EDEMA & RESPIRATORY FAILURE	3
897	ALCOHOL/DRUG ABUSE OR DEPENDENCE W/O REHABILITATION THERAPY W/O	3
330	MAJOR SMALL & LARGE BOWEL PROCEDURES W CC	3
742	UTERINE & ADNEXA PROC FOR NON-MALIGNANCY W CC/MCC	3
202	BRONCHITIS & ASTHMA W CC/MCC	3
440	DISORDERS OF PANCREAS EXCEPT MALIGNANCY W/O CC/MCC	3
378	G.I. HEMORRHAGE W CC	3
308	CARDIAC ARRHYTHMIA & CONDUCTION DISORDERS W MCC	3
699	OTHER KIDNEY & URINARY TRACT DIAGNOSES W CC	3

09

EMERGENCY MEDICAL SERVICES

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Appendix A-2 Emergency Medical Care Services
1.4 Performance Criteria

A. The Utilization/Hour rate will be at or below 0.5 transports/hour (system wide).

Response:
The utilization/hour rate system wide was 0.4432 for the year 2017.

B. The City and the Authority agree that changes in the performance criteria for this Appendix are needed. Denver's Emergency Medical Services (EMS) system will strive to meet the Denver Equivalent of NFPA standards as described in 2004 NFPA 1710 and 1221. The City and the Authority recognize that the emergency medical response system is a tiered, multiple component system comprised of the City's 911 Combined Communications Center ("911 Communications Center") for call taking, dispatching and administration of the record keeping system, the Denver Fire Department for Basic Life Support (BLS) first responders, and the Authority for Advanced Life Support (ALS) paramedics and transport services. The Denver Equivalent of NFPA standards for emergency (lights and sirens) calls will consist of the Total Response Time in Table 1 and the clinical performance standards set forth in paragraphs 1.4.b.5 below. Measurement of the standard shall be as set forth below.

1. Beginning April 1, 2009, the City and the Authority agree that the official timekeeper for determining response times is the City's Director of the 911 Communications Center, specifically the computer aided dispatch (CAD) administrator. The City and the Authority agree that the City will measure response times for emergency (lights and sirens) calls in total from the time that the call is answered by Denver 911 until the first responders and the paramedics arrive at the address, respectively.

2. Each component of the emergency medical response system, including the 911 Communications Center, the Denver Fire Department, and the Authority has its own independent time requirements under the NFPA standards. Each of these three components is independently responsible for its own role in the response function. All components of the system must work as a team to meet the Total response time goal for emergency (lights and siren) response times, listed in minutes and seconds, as set forth in Table 1:

Table 1

	Dispatch-95% (Call Answered to Unit Assigned)	Reponse-90% (Unit Assigned to Unit Arrived)	Total-90% (Call Answered to Unit Arrived)
Call Answering and Processing-Denver 911	**1:30**	**N/A**	
BLS-Denver Fire	**N/A**	**5:00**	**6:30**
ALS-Denver Health	**N/A**	**9:00**	**10:30**

Response:

The City's Director of the 911 Communications Center reported the following metrics for the Denver Health Paramedic Division's response times:

	Dispatch			Response			Total	
95% Goal	95% Actual	Compliance	90% Goal	90% Actual	Compliance	90% Goal	90% Actual	Compliance
1:30	3:54	49.2	9:00	8:49	91.0	10:30	11:07	87.9

3. Responsibility of the City 911 Communications Center:

   a. **Data Analysis** – Response data are collected from the CAD system at the 911 Communications Center. Understanding that public policy decisions must be made using data that are as accurate and precise as is possible, the 911 Communications Center will analyze the stored data to provide useful EMS system performance information excluding data that has been identified in Paragraphs B and C below.

   b. **Inaccurate data** – The CAD Administrator will analyze performance data to identify data that are verifiably inaccurate, identified by annotation within the system. The CAD Administrator shall exclude such data from the analysis to the extent that they interfere with representative analysis, including the following data filters.
   - Eliminating all negative values
   - Eliminating all zero values except for First Unit Assigned/First Unit Enroute
   - Eliminating all durations in excess of 30 minutes for most data elements
   - Eliminating all durations in excess of 60 minutes from answer to arrival

i. Bad Address – The call-taker receives incorrect location information from the caller. A bad address may result in the responding unit being sent to an incorrect location, delaying response to the correct location.
ii. Priority Change – Information changed during the response, resulting in an up- or downgrade of the response mode. Mixing non-emergency and emergency travel into a response time is unrepresentative of the response time.
iii. Out of Jurisdiction -- Calls requesting emergency assistance to a location outside of the City and County of Denver. At DIA this may also include calls outside of the defined response area for paramedics assigned to DIA.
iv. Duplicate Calls – It is not uncommon to receive and document several calls for the same incident in the CAD system. These accessory incidents are an indicator of dispatch activity, but not overall system volume or activity and artificially increase the number of incidents managed in the system.
v. Test Calls – Some calls are entered into the system purely for personnel or system testing and training.
vi. Weather – Dangerous weather conditions are beyond the control of the responding agencies. Weather exemptions are based upon a collaborative decision by the Denver Fire Department and Authority Paramedic Division command personnel that the weather conditions pose hazards during responses, necessitating high levels of caution and slow speed. The durations of these weather emergencies are tracked and response times during those periods are exempted from response time calculations in the interest of response personnel and public safety.
vii. Additional Exclusions for DIA

a. Restricted access to areas within DIA's jurisdiction that cannot be easily accessed in a timely manner or to which the paramedic does not have authorized access without escort.
b. Limited visibility operations, as defined by DIA.
c. Paramedic responses to medically diverted or scheduled flights on which there is a medical emergency. Response time for such calls will be maintained but will be reported separately in the monthly report under excluded calls as required to be reported in Paragraph 7 below.
d. When paramedic responses are added as an additional service being requested, the time clock shall start when the paramedic is requested and not the time the event started.

4. **Authority's Performance Criteria** - Since the Authority provides the medical direction for the entire emergency medical response system, each of the components of Denver's Emergency Medical Services system shall submit all clinical performance reports to the Authority's Paramedic Division Medical Director as requested, as part of the system's medical quality assurance.

Response:
No response necessary.

5. **Authority's Clinical Criteria** - The following clinical performance measures for each call will be reported by the Authority in its quarterly performance report:

   a. The administration of aspirin to STEMI (cardiac alert) patients, unless contraindicated or a recent previous aspirin ingestion is documented.

   Response:
   STEMI is a medical term for a common type of heart attack. One hundred-five of these heart attack patients were transported in 2017. One hundred-five (100%) received aspirin, with an on-scene to at-hospital time of 23:21.

   NOTE: This 100% represents all patients that received aspirin as administered by the on scene paramedic or that were instructed to take aspirin by the 911 call taker.

   b. Elapsed time from when paramedics arrive at the scene until Emergency Department arrival of the transporting unit for STEMI (cardiac alert) patients, with direct transport to an identified interventional (PCI) facility.

   Response:
   The average time between EMS scene arrival and patient arrival to the ED of the 105 heart attack patients was 23:21 minutes in 2017. Every patient in this group was transported to an identified facility that is specifically ready to handle heart attack victims.

   c. Transport ambulance scene time for trauma patient emergency transports.

   Response:
   897 emergency (lights and siren) transports of trauma patients occurred in 2017. The average scene time for these patients was 9:48 minutes.

NOTE: Every call with a scene time longer than 10 minutes was reviewed by the Denver Health Paramedic Division Captain with responsibility over quality assurance and the Medical Director.

d. Transport of emergency trauma patients to a designated trauma center.

Response:

Of the 897 emergency trauma patients, 896 (99.9%) were transported to a facility designated by the American College of Surgeons as a level I or II trauma center.

ADDITIONAL COMMENTS: Medical evidence shows that severely injured trauma patients with scene times less than 10 minutes who are transported to a designated trauma center can be saved at a much higher rate. The Denver Health Paramedics perform especially well in this category.

NOTE: 100% compliance with trauma center transport is not necessarily the desired goal. Each of the cases in which the patient was not transported to a trauma center was reviewed by the Denver Health Paramedic Division Captain with responsibility over quality assurance and the Medical Director. The cases had reasonable factors for non-transport to a trauma center (i.e. primary issue was a non-traumatic problem more appropriately handled at the closest facility to the call location).

e. Out-of-hospital cardiac arrest survival rate reported under the Utstein Criteria definition.

Response:

In 2017 there were 30 survivors that were discharged alive and well. The Denver Health Paramedic Division had an Utstein Survival rate of 30.4%. The National Average for 2017 is 31.8% (per the Cardiac Arrest Registry to Enhance Survival).

ADDITIONAL COMMENTS: The Denver Health Paramedic Division uses a database that includes cardiac arrest survival data from more than 40 cities around the nation.

6. The Authority shall be responsible for meeting its time and clinical performance criteria. The Authority can meet its response time performance criteria either by meeting the nine minute ALS Response time of 90% from unit assigned to unit arrived or by meeting the 10 minute 30 second Total Response time from Call answered to Unit Arrived.

Response:
The Authority has met its response time performance criteria by having met the nine minute ALS response time of 90% from unit assigned to unit arrived. According to the City's Director of the 911 Communications Center Reports, the Authority's response time compliance under nine minutes was 91.0%. Please see Appendix A-2 § 1.4-B-2 above.

7. **Reporting –** Performance reports will be submitted monthly to the Monitoring Group by the Authority, not later than fifteen (15) days after the end of the month. The Monitoring Group will be comprised of City (Mayor's Office, Department of Safety and Auditor), City Council members, and Denver Health representatives. Reports will contain the following information:
   Compliance – The percentage of responses with response times less than or equal to the time criteria identified above for each category and service level; i.e. how many times out of 100 was the time criteria met.
   Time Performance – Using the same data set as for compliance, the time (in minutes and seconds) at which 90% of responses fall at or below; e.g. 90% compliance for total response time was achieved at 11:00.
   Exclusions- The count of excluded calls, by type, will be reported by month in each report.

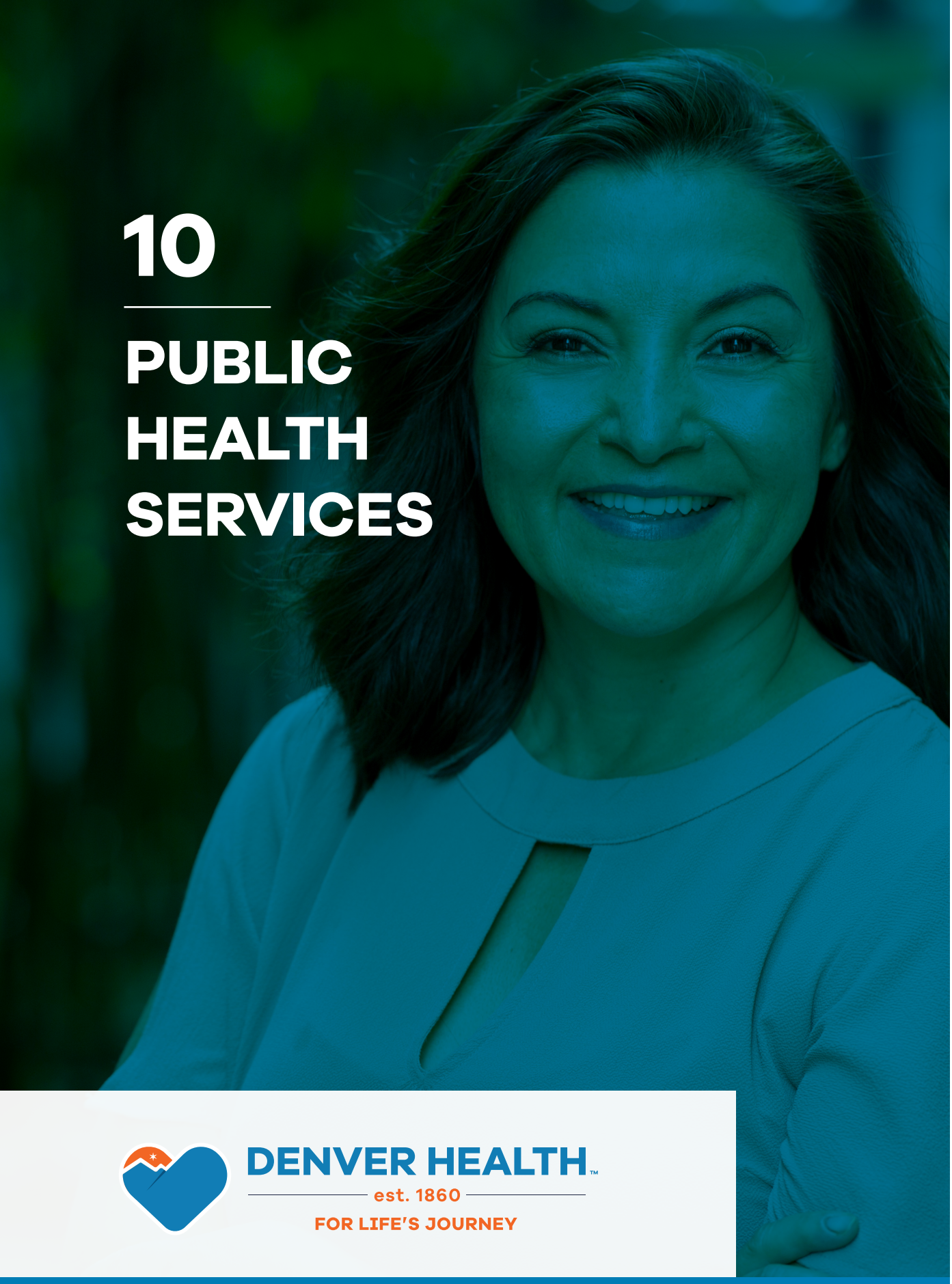
Response:
The required reports have been submitted by the City's Director of the 911 Communications Center and the Authority has attended monthly meetings.

8. **Remedies –** The parties recognize that the tiered emergency response system does not currently meet the Denver Equivalent of the NFPA standard. The parties have implemented improvements to the system that have improved and will continue to improve overall response time. The parties have set a goal of November 30, 2009 to meet the Denver Equivalent of the NFPA standard, which they did not meet. As a

consequence, each component of the system (Communications Center, Fire Department and Denver Health) shall submit a report to the Monitoring Group that sets forth their progress toward the goal, impediments to meeting the goal (if any), a plan for achieving the goal and expected time frames for meeting the goal. In addition, each component of the system will meet monthly with the Monitoring Group to report on their progress toward meeting the Denver Equivalent of the NFPA standard.

Response:

The required reports have been submitted and the Authority has attended monthly meetings.



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PUBLIC HEALTH SERVICES

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Appendix A-3 Public Health Services
1.4 Performance Criteria

A. Monitor, investigate, and submit reports upon request by Denver Department of Public Health and Environment (DDPHE) that specify the number of cases of all Colorado Board of Health reportable communicable diseases. Communicable disease and public health specialty consultation will be available twenty-four (24) hours a day, seven (7) days per week.

Response:
Monthly reports were submitted with the case numbers of communicable diseases based on monitoring and investigating outbreaks. Infectious disease and Public Health epidemiology & communicable disease specialty consultations were available 24 hours a day, 7 days a week.

B. Collaborate with DDPHE and other public health agencies in outbreak investigations. In particular, a public health nurse within Denver Public Health (DPH) will assist the Division of Public Health Inspections within DDPHE to conduct a more comprehensive childcare inspection program. This nurse will serve as a liaison between child care providers, child care nurse consultants, Environmental Health Investigators and Public Health and perform duties such as immunization audits, trainings, outreach and education, provide medical and health advice to child care providers, child care inspectors, and nurse consultants and assist with public health inspections. DDPHE and DPH agree to work collaboratively to effectively manage performance expectations, workload, and performance evaluations at each respective work site. DDPHE and DPH mutually agree to address any conflicts that may arise from this work arrangement collaboratively.

Response:
DPH and DDPHE collaborated on the epidemiological and site-based investigations of 12 outbreaks.

C. Provide immunizations to City citizens on a walk-in basis Monday through Friday and immunize children at the appropriate age in neighborhoods with low immunization rates to the extent available by funding. Provide comprehensive travel health services including immunizations.

Response:
Immunizations were available to the public on a walk-in basis, Monday through Friday, 8 a.m. to 4:30 p.m. Immunization clinics were conducted in various communities around the city of Denver, focusing on neighborhoods with the lowest incidence of immunization compliance. In addition, school located immunization clinics were held in select Denver Public Schools that have low immunization rates and no school based health clinic. Travel consultations and immunizations were provided to individual and group travelers. Please refer to metrics in section I.

D. Provide comprehensive infectious disease, including HIV and Hepatitis C primary care and prevention services to existing and new patients in the City.

Response:
Comprehensive care, including primary medical, prenatal, dental, pharmacy, nutritional and mental health, was provided to ongoing patients and to all newly diagnosed patients who were referred to the clinic or who entered the clinic through one of the citywide linkage-to-care programs. HIV prevention services such as treating high-risk individuals with Post-Exposure Prophylaxis (PEP) and Pre-Exposure Prophylaxis (PrEP) were also offered by the clinic. Additionally the Infectious Disease Clinic significantly expanded Hepatitis C treatment and assisted with other infectious disease cases. Please refer to metrics in section I.

E. Work with the Denver Office of Emergency Management and DDPHE in developing, planning, exercising, annual review and updating the public and environmental health support functions under the Emergency Support Function 8 (i.e., Public Health and Medical Services), standard operating procedures (SOPs) and related ESFs in the City and County of Denver's Emergency Response and Operations Plan. Contribute to the City and County of Denver Office of Emergency Management to efficiently plan and respond to events, disasters, and other public health emergencies in Denver.

Response:
Working cooperatively with city agencies, Denver Public Health participated in the development, planning and exercises of the ESF 8 functions.

F. Provide sexually-transmitted infection diagnosis, surveillance, prevention and treatment Monday through Friday in the Sexually Transmitted Disease Clinic outreach clinics and community based settings (as applicable) to high risk populations in the community.

Response:
STD and Family Planning clinical services were available to the public on an appointment and walk-in basis Monday through Friday, offering family planning services along with the diagnosis, surveillance and treatment of sexually transmitted infections. Linkage to care was provided for patients with HIV/AIDS or Hepatitis C along with patients interested in PrEP. HIV and STD outreach testing and clinics were provided throughout the community focusing on populations with the highest degree of risk for infection. In addition, screenings are done for blood pressure, tobacco, alcohol, and substance use. Clinical concerns identified are referred to appropriate medical or social services. Please refer to metrics in section I.

G. Ensure the timely detection, diagnosis, and treatment of patients in the City with suspected tuberculosis; identify and evaluate contacts of infectious cases; target, test and treat latent tuberculosis in high-risk populations.

Response:
Clinical services were available for testing and treatment of patients and referrals known or suspected to have TB. Contact investigations were conducted on all infectious cases and appropriately evaluated and treated. Outreach efforts to target, test and treat latent TB infection in high-risk populations, such as the foreign born, the homeless, and health care workers, were continued, supported by locally conducted research into developing testing and treatment alternatives. Please refer to metrics in section I.

H. Provide birth and death certificates to the public Monday through Friday.

Response:
Birth and death certificates were provided to the public Monday through Friday, on a walk-in basis. Requests were also taken by telephone, online ordering, and mail.

I. The Authority will provide an annual report by May of the following year being reported on, which includes performance statistics for the year and the two previous fiscal years, for the following items:

- Reportable Communicable diseases
  - o Number of outbreak investigations and a general report on outcome of investigations
  - o Number of HIV and STD high risk participants screened in outreach efforts

- Total Patient Encounters in ID/AIDS clinic
  - o Percent of HIV/AIDS patients requiring hospitalization
  - o Cases of perinatal HIV transmission
- Total vaccinations
  - o Child less than 19 years of age
  - o Adult vaccinations
  - o Travel vaccinations
- Total STD clinic visits
  - o Comprehensive STD visits
  - o Express STD visits
  - o HIV counseling and testing
- Total TB visits
  - o Number new TB cases
  - o Number of patients with new/suspected TB started on treatment and percent completed treatment
  - o Number of high risk patients screened for latent TB
  - o Number of latent TB patients started on treatment and percent completed
- Total birth and death certificates registered
  - o Certified copies issued

Monthly reporting of volumes previously submitted to City, yearly summary below.

PUBLIC HEALTH SERVICES	2015	2016	2017
Patient Encounters - Infectious Disease Clinic	16,875	17,361	21,757
Hepatitis C treatment encounters	344	349	518
PrEP encounters	627	1,144	1,129
Birth and Death Certificates Registered	5,755	5,219	5,656
Certified Copies Issued	60,700	61,916	54,887
New TB Cases	57	46	58
Patient Encounters - TB Clinic	21,754	18,893	19,033
STD Clinic Visits	15,515	16,086	16,762
Total Immunization Visits	10,908	9,729	9,582
Total Vaccinations Provided	21,850	19,129	18,536

J. The Authority will provide a quarterly report to the City in the format attached to this Appendix, which indicates the amount of year-to-date expenses and revenues for Public Health Services by the 45th day after the end of the reporting period.

Response:

Monthly financial reports were provided instead of quarterly reports.

K. DPH will work with DDPHE to collect, compile, assess, and prepare a comprehensive report on the health of Denver. This comprehensive report will be prepared and published every three (3) years. DPH and DDPHE will also collaborate on the development of a community health improvement plan every five (5) years. The two departments will then provide updates on key metrics of the plan at least every six (6) months. DPH will provide ongoing detailed analysis of health data by which Be Healthy Denver can assess the effectiveness of interventions.

Response:

In 2017, DPH and DDPHE partnered to publish four issues of Denver Vital Signs. Topics featured included reducing harms associated with the opioid epidemic, gun violence, healthy housing, and pedestrian safety. Also in 2017, DPH and DDPHE worked together to publish the 2017 Denver Youth Health Assessment. More than a dozen staff from DPH and DDPHE participated in this project, which was led by a team of nine youth leaders and involved 21 youth-serving organizations. The report was launched in January 2018 to 100 members of the community and will be used to drive action planning to support youth health moving forward. Findings from the 2017 Denver Youth Health Assessment will be highlighted in the February 2018 issue of Denver Vital Signs.

L. DDPHE and DPH will jointly pursue national accreditation, including sustaining reaccreditation efforts.

Response:

Together, DDPHE and DPH provide comprehensive, high-quality public health services to the City and County of Denver. Our departments have unique areas of expertise in public health and environmental health, and we use that expertise to work collaboratively to serve our community. The high-quality services we provide resulted in the City and County of Denver receiving national public health accreditation in March 2017.

M. DPH will in collaboration with DDPHE create an environment that is responsive to information requests of the City's citizens and City leaders. The informatics group will create SOPs for the project management, reporting services and development of information and business intelligence systems that support data-driven decision making.

Response:

SOPs created and organizational capacity increased to use Tableau for reporting data to partners and stakeholders. During 2017, DPH developed and released a number of reports pertaining to the health of the residents of Denver. In addition, further enhancements were made to the HIV, Marijuana substance abuse, and Immunization Business Intelligence (BI) tools.

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DENVER COMMUNITY ADDICTIONS REHABILITATION AND EVALUATION SERVICES

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Appendix A-4 Denver Community Addictions Rehabilitation and Evaluation Services (CARES)

1.4 Performance Criteria

A. One-hundred percent of the women of child-bearing age utilizing the services of Denver C.A.R.E.S. will be offered a pregnancy test and, if the test is positive, will be provided referral and follow-up.

Response:

Denver C.A.R.E.S. provides pregnancy testing at no cost to any female client. All women of child-bearing age are offered a pregnancy test; those testing positive are referred to women's services. For 2017, 1,505 pregnancy tests were offered, 36 pregnancy tests were given, and 1 pregnancy test was positive.

B. An ESP average response time of 30 minutes or less will be provided, with that time being calculated as the number of minutes from the dispatcher notifying the van to the time of arrival on the scene. A goal of 30 minutes will be set for contract year 2017 based on available resources.

Response:

In 2017, our average response time to calls without standby was 10:04 and the response time to clients with public safety personnel standing by was 11:42. The overall average response time to all calls was 10:52.

C. Average length of stay will be 36 hours or less.

Response:

The average length of stay in the detox was 23.84 hours for 2017 (time sample 12-1-2017 to 12-14-2017).

D. The Authority will provide an annual report by May 1 of the year following the year being reported on, which includes performance statistics for the year just ended and the two previous fiscal years, for the following items:

- Shelter: Average Daily Census
- Detoxification: Average Daily Census
- DUI Program: Patient Encounters
- Emergency Services Patrol:
  - ❖ Average Response Time
  - ❖ Number of clients picked up per shift

- ❖ Number of clients admitted to involuntary commitment
- ❖ Number of referrals not accepted for service

Response:

❖ Denver C.A.R.E.S. Services	2015	2016	2017
Shelter/Detox Program: Average Daily Census	77.8	79.05	94.9
Outpatient Counseling: Patient Encounters	28,403	28,854	34,619
DUI Program: Patient Encounters	732	498	381
Emergency Services Patrol: Average Response Time in Minutes	25:04	25:44	10:52 *
Number of Clients Picked Up Per Shift	12.6	13.0	13.3
Number of Clients Admitted for the First Time	4,746	4,364	5,312
Number of Clients Admitted More Than One Time for the Program Year	2,434	2,375	2,096
Number of Admission of Homeless Clients	18,783	19,146	17,478
Number of Clients Who Did Not Pay Any Charges Due for Services Rendered	7,313	6,847	3,117 **
Number of Veterans Entering Denver C.A.R.E.S.	1,640	1,432	1,038
Number of clients referred for an involuntary commitment	N/A	N/A	72
Number of clients admitted to involuntary commitment	N/A	N/A	20
Number of referrals not accepted for service (based on 4th quarter 2017)	N/A	N/A	484

* A ESP patrol van was added in 2017.

** Decrease due to the push to get clients on Medicaid and getting the approval to fill out packets for clients.

E. The Authority will provide a quarterly report to the City in the format attached to this Appendix, which indicates the amount of year-to-date expenses and revenues for Denver C.A.R.E.S. by the 45th day after the end of the reporting period.

Response:
The Denver Health Financial Department provided regular quarterly reports to the City.

F. The Authority will provide to the City ESP van reports of shifts worked on a monthly basis by the 45th day after the end of the reporting period.

Response:

2017 Scheduled Shifts = 10,202 hours; 13,578 clients were transported (13.3 per shift average).

Shift	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Day (V1)	30.5	28	29.2	30	31	30	30.5	29.5	29.5	27.8	28.3	25.8	350.1
Cover (V3)	26.4	27	28.8	20.7	28.5	29.3	30.5	29.2	26	25.5	26.5	23.3	321.7
Night (V2)	30.2	27.9	30.4	28.3	31	28.5	30.2	31	29.6	30.8	29.6	20.9	348.4
Total	87.1	82.9	88.4	79	90.5	87.8	91.2	89.7	85.1	84.1	84.4	70.0	1,020.2

2016 Scheduled Shifts = 8,247 hours; 10,722 clients were transported (13.0 per shift average).

Shift	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Day (V1)	31	28.8	30	29.5	30.5	30.5	31	31	30.5	30.5	29	30	362.3
Cover (V3)	10	7	8	9.5	8	7.75	6	6.25	9	9	7	10	97.5
Night (V2)	30.8	28.8	31	30	30.5	29.5	31	31	31	31	30	30.5	365
Total	71.8	64.5	69	69	69	67.8	68	68.2	70.5	70.5	66	70.5	824.8

2015 Scheduled Shifts = 8,205 hours; 10,371 clients were transported (12.6 per shift average).

Shift	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Day (V1)	26.5	27	32	29	30	29	30	28.5	29.5	31	29.5	30.5	352.5
Cover (V3)	9	9	9	8	10	8	8	10	7.5	9	9	9	105.5
Night (V2)	31	27.5	31	30	29.5	30	31	30	30	31	30.5	31	362.5
Total	66.5	63.5	72	67	69.5	67	69	68.5	67	71	69	70.5	820.5

G. Provide a quarterly report no later than the 15th day of the month following the end of the quarter, for data representing the previous quarter including the following

- Number of persons entering CHART'S treatment program
- Number of persons successfully completing CHART'S treatment program
- Number of persons housed at Denver CARES
- Disposition of individuals served including, but not limited to, Involuntary Placement, Housing, Employed, Left Treatment Prior to Completion, No Longer in Program, Hospitalized, Average Daily Attendance in Detox and Treatment.

Response:

Denver C.A.R.E.S. provided regular quarterly reports to the City.

The following summarizes the activities of all programs at Denver C.A.R.E.S. contributing to Denver's Road Home during 2017:

RETURN

RETURN, a transitional residential treatment program for men and women located at Denver C.A.R.E.S., has been providing substance abuse treatment and case management to homeless clients since November 2005.

2017 4th Quarter Outcomes

- 83 clients (81 unique clients) have received services since the beginning of 2017; 22 were enrolled at the end of the 4th quarter 2017.
  - 14 successfully completed the program and moved into stable housing situations.
  - 2 successfully completed the program and moved into a temporary housing situation.
  - 7 successfully completed the program, but their destination is unknown.
  - 38 were either non-compliant and/or refused treatment and left the program.
  - 7 clients discharged with unknown outcomes
  - 15 clients remained in the program at the end of 2017.

Cumulative Outcomes

- 1,017 clients (815 unique clients) have received services since the inception of the program.
  - 181 successfully completed the program and moved into stable housing situations.
  - 40 successfully completed the program and moved into temporary housing situations.
  - 40 transferred to another facility for further treatment.
  - 2 were incarcerated while in the program.
  - 50 successfully completed the program, but their destination is unknown.
  - 339 were either non-compliant and/or refused treatment and left the program.
  - 350 clients discharged with unknown outcomes.
  - 15 clients remained in the program at the end of 2017.

Justice TRT

Justice TRT is a transitional residential treatment program located at Denver C.A.R.E.S. and has been in operation since September 2015. It is a treatment and case management program provided by Denver C.A.R.E.S. Clients are referred to Denver C.A.R.E.S. from Recovery Court, Court to Community and Sobriety Court.

2017 4th Quarter Outcomes

- 63 clients (58 unique clients) have received services since the start of 2017; 16 were enrolled at the end of the 4th quarter 2017.
    - o 11 successfully completed the program and moved into stable housing situations.
    - o 3 successfully completed the program and moved into a temporary housing
    - o 6 successfully completed the program, but their destination is unknown.
    - o 29 were either non-compliant and/or refused treatment and left the program.
    - o 3 clients discharged with unknown outcomes.
    - o 11 clients remained in the program at the end of 2017.

Cumulative Outcomes

- 155 clients (142 unique clients) have received services since the inception of the program.
    - o 31 successfully completed the program and moved into stable housing situations.
    - o 5 successfully completed the program and moved into a temporary housing situation.
    - o 2 transferred to another facility for further treatment.
    - o 8 successfully completed the program, but their destination is unknown.
    - o 88 were either non-compliant and/or refused treatment and left the program.
    - o 10 clients discharged with unknown outcomes.
    - o 11 clients remained in the program at the end of 2017.

CHARTS

C.H.A.R.T.S. is a treatment and case management program provided by Denver C.A.R.E.S. in collaboration with the Colorado Coalition for the Homeless (CCH). Homeless clients identified as frequent users of Denver C.A.R.E.S. detox are eligible for this program and may be enrolled for up to two years, during which time they move within a continuum of care including intensive case management, mental health treatment, residential treatment and transitional housing. Case management, mental health treatment and residential treatment services are provided by Denver C.A.R.E.S. and the transitional housing vouchers are managed by CCH. The biggest hurdle for success continues to be access to affordable housing in the city of Denver.

2017 4th Quarter Outcomes

• 56 clients (54 unique clients) have received services since the beginning of 2017; 11 were enrolled at the end of the 4th quarter 2017.
  - o 11 successfully completed the program and moved into stable housing situations.
  - o 3 successfully completed the program and moved into temporary housing situations.
  - o 1 successfully completed the program, but their destination is unknown.
  - o 27 refused and/or discharged from CHARTS program services.
  - o 3 clients discharged with unknown outcomes.
  - o 11 clients remained in the program at the end of 2017.

Cumulative Outcomes

• 318 clients (261 unique clients) have received services since the inception of the program.
  - o 134 successfully completed the program and moved into stable housing situations.
  - o 24 successfully completed the program and moved into temporary housing situations.
  - o 1 complied with incarceration after successfully participating in Charts for nearly 14 months.
  - o 6 transferred to another facility for further treatment.
  - o 28 successfully completed the program, but their destination is unknown.
  - o 107 refused and/or discharged from CHARTS program services.
  - o 7 clients discharged with unknown outcomes.
  - o 11 clients remained in the program at the end of 2017.

CURES STR

CURES is an opioid medication assisted treatment program located at Denver C.A.R.E.S. and has been in operation since September 2017. It is a treatment and case management program provided by Denver C.A.R.E.S. Clients are referred to Denver C.A.R.E.S. from OBHS and the community.

Cumulative Outcomes

• 10 clients have received services since the inception of the program.
  - o 2 successfully completed the program and moved into stable housing situations.
  - o 6 refused and/or discharged from CURES program services.
  - o 2 clients remained in the program at the end of 2017.

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SUBSTANCE TREATMENT SERVICES

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A-5 Substance Treatment Services
1.5 Performance Criteria

To promote the goal of recovery, OBHS will report the following metrics (for the 2017 Agreement, the metrics should be considered baseline as no comparable data is available):

A. OBHS patient census and 'recovery' measures

1. Total patient census in outpatient methadone treatment (OMAT)

Response:
Using OBHS' Substance Abuse Medication Monitoring System (samms) Active Client Report 12/31/2017 patient census in Methadone is **601**.

1a. Percent of patients on phases 1 through 5 (remaining population receives medication daily)

Response:

Phase I	2-take home doses per week	5%
Phase II	3-take home doses per week	4%
Phase III	4-take home doses per week	5%
Phase IV	6-take home doses per week	6%
Phase V	13-take home doses per week	14%

2. Total patient census in outpatient Suboxone

Response:
Using OBHS' Suboxone access database 12/31/2017 patient census in outpatient Suboxone (OBOT) is **110**.

2a. Percent of Suboxone patients considered on maintenance

Response:
52% of OBHS' Suboxone patients are considered on maintenance. Maintenance is defined as receiving a 30-day prescription of medication.

3. Total patient census in traditional outpatient (TOP)

Response:
Using OBHS' patient access database 12/31/2017 patient census in traditional outpatient is **110**.

3a. Percent of reduction of use at discharge compared to C-STAT measure

Response:
Using Signal Behavioral Health Network's BEACON web-portal's Reduction of Use report for timeframe 1/1/2017 – 12/31/2017: 92.3% of patients report reduction in use at discharge.

4. Patient census by program reported quarterly and including new admissions, current/active and terminations.

Response:
All quarterly reports were submitted during contract year 2017.

B. Total number of annual admissions into each program (OMAT, OBOT, TOP)

Response:

2017 Annual Admissions into Adult Substance Treatment Programs	
OMAT	416
OBOT	130
TOP	193
Data source Signal Behavioral Health Network web-portal BEACON: data pulled 2.1.2018	

1. For TOP/ OBOT: Access to services with 7-business days will be included.

Response:
Using Signal Behavioral Health Network's BEACON web-portal's Access to Service report for time frame 1/1/2017 – 12/31/2017: OBHS' admitted 312 TOP/ OBOT patients within 7-days, a rate of 96.6%.

C. The Authority will see one-hundred percent of pregnant women and women with dependent children who meet eligibility criteria for Special Women's and Family Services.

Response:
Pregnant women and women with dependent children are admission priority populations. During contract year 2017, OBHS served 69 pregnant women within our special women's and family services (WFS) program. This is 245% more than the estimated 20-pregnant women to be served. Pregnant women seeking substance treatment services are provided an intake within 24-hours of initial contact with our clinic.

SUBSTANCE TREATMENT SERVICES

During contract year 2017, OBHS served 147 women with dependent children within our WFS program. 96.6% of women with dependent children accessed services within 7-days. In 2017 OBHS' WFS program implemented a gender specific intensive outpatient program (IOP). WFS served 17 women in this high intensity program.

1. Ninety percent of infants delivered by women in treatment as part of the Women and Family Services (WFS) program will be free of any illicit substance. Twenty or more pregnant women will be in treatment in this Fiscal Year.

Response:
Of 69 pregnant patients, WFS has information on 40 deliveries. The remaining patient population is still pregnant, has miscarried, or moved/ transferred clinics.

60% of infants delivered by women in treatment as part of WFS were free from illicit opioids. Of the 40 patients that delivered while in treatment, 16 had a positive urine drug screen for opioids at time of delivery.

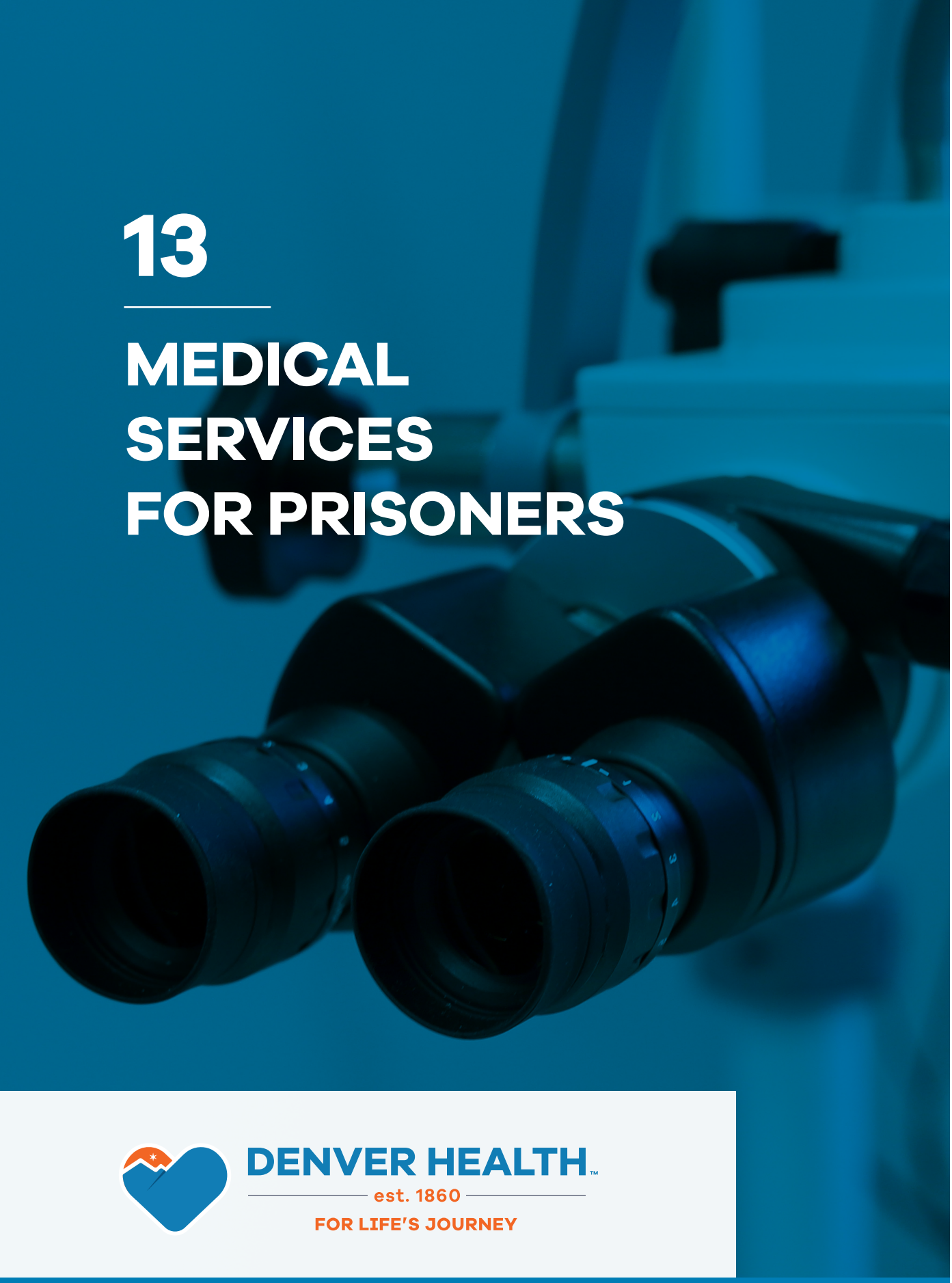
WFS continue to work closely with an intensive case manager and Denver Health's women's care clinic to support this special population. We've implemented a higher level of care for these patients in 2017, and will continue to work toward achieving a 90% rate of abstinence for this population.

2. If positive will include percentage of positive illicit opioid births.

Response:
40% of the patients that delivered while in treatment had a positive urine drug screen for opioids at the time of delivery.

D. Number of OBHS births, at Denver Health, treated for neo-natal abstinence syndrome.

Response:
Diagnosis data pulled from Denver Health's data warehouse on 2/1/2018 identifies Denver Health treated 45-neonates with an NAS diagnosis. The average length of stay in the neonatal intensive care unit was 15-days.



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MEDICAL SERVICES FOR PRISONERS

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Appendix A-6 Medical Services for Prisoners
1.4 Performance Criteria

A. The CCMF is a Denver Health patient care facility and as such will comply with Joint Commission on Accreditation of Healthcare Organizations regulations and review.

Response:

The Correctional Care Medical Facility (CCMF) follows all Denver Health policies and procedures aligning with the regulations of our accreditation by the Joint Commission on Accreditation of Healthcare Organizations. CCMF continues to be open for Denver prisoner admissions 24 hours a day, 7 days a week. The CCMF is a state-of-the-art facility, combining both security and medical care features. Patients are accepted from all adult-based correctional facilities and jurisdictions. 20 beds (including 1 dedicated psychiatric observation room), five holding cells, electronic surveillance and door control, vehicular sally port, and a dedicated 6 room outpatient area are some of the key features of this facility. It is expandable to more than 28 beds if the need arises. During 2017, the CCMF unit provided care and DSD services for 725 discharges (Denver 294), 3475 total hospital days for all jurisdictions and 1981 for Denver; the average length of inpatient stay was 6.0 days for all jurisdictions and 6.36 for Denver. There were also 4291 specialty outpatient visits provided to various jurisdictions through the CCMF outpatient clinic and 1449 to Denver patients. The Emergency Department saw 2797 Denver Jail patients in 2017.

B. The Authority will continue to provide the City with mutually agreed to standardize UM reports each month. In addition, the following information shall be provided to the Sheriff or his/her designee:

1. a daily census report for all inpatients at CCMF or DHMC;
2. within 60 days, monthly patient data including the patient name, medical record number, total length of stay, admit and discharge dates, the Authority charges, City Cost, patient DOB, split billing information.;
3. within 60 days, monthly reports including ambulance, facility and physician billing;
4. within 60 days monthly third party billing reports including patients name, admit and discharge dates, split billing information, sum of charges, sum of City cost, amount collected from third party, name of third party payor, credits/debits to City; and,
5. within sixty (60) days, a monthly A-6 report and B-3 report as agreed upon by the City and Authority.

Response:

During 2017, all of the above listed reports have been submitted to the City. Reports on special projects are also included in the UM reports such as Specialty Clinic Utilization Report. A daily census report is provided.

C. The Authority shall continue to develop and submit financial reports at least monthly to enable the City and the Authority to evaluate payment mechanisms and to improve understanding of costs. If the ongoing billing methodology work group (consisting of representatives from the Authority and the City) agrees, the City and the Authority may amend this agreement as to payment methodology.

Response:

During 2017, the Authority continued its monthly financial reporting to include summary and detailed information. These reports have enabled analyses of the many different services on various levels. The current reporting format and content has been approved by both the City and the Authority.

D. If any third party payment is denied or reduced to less than full payment, the Authority shall provide detailed documentation of such (including the stated reason and any available appeal procedures) to the City within fifteen (15) days. The Authority shall timely take such action as is necessary and reasonable to challenge or appeal the denial or reduced payment, where warranted under the law and the rules of ethics as long as the City pays all necessary, reasonable to challenge or appeal the denial or reduce payment, where warranted under the law and the rules of ethics as long as the City pays all necessary, reasonable and preauthorized (in writing) associated fees and expenses and the City's written preauthorization is received within three (3) days of the Sheriff's or his/her designee's receipt of written notice from the Authority of the denial or reduction. However, the City shall not pay for the processing and re-submission of third party claims that can be accomplished by Authority staff.

Response:

The City is notified monthly of all denials related to third-party payments. Where there are concerns; these concerns are resolved in accordance to the language outlined above.

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DENVER HEALTH MEDICAL PLAN

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Appendix A-7 Denver Health Medical Plan and City Employee Healthcare Opinion Survey

1.3 Performance Criteria

a. The Health Plan will meet all performance standards defined in the annual contract.

b. Health Employer Data Information Set (HEDIS), National Committee for Quality Assurance (NCQA) Standards will be used to define the Performance Standards above.

Response:

The plan met 7 of the 9 HEDIS standards.

Note: There were originally 11 measures; two have been retired since CY2016. The City and County of Denver has an opportunity to consider and select 2 additional measures.

HEDIS Quality Score and Member Satisfaction Performance Standards

HEDIS Quality Score (Effectiveness of Care):

For the Commercial population, which includes the City and County of Denver members, DHMP will maintain a score on the following 9 HEDIS* categories that is greater than or equal to the national HMO published averages at the 50th percentile, or a 3% increase compared to the previous year:

1. Breast Cancer Screenings
2. Adult BMI Assessment
3. Childhood Immunization Status – Combo 2
4. Childhood Immunization Status – Combo 3
5. Comprehensive Diabetes Care: HbA1c < 8
6. Comprehensive Diabetes Care: Blood Pressure Control < 140/90 mm Hg
7. Controlling High Blood Pressure
8. Appropriate treatment of Children with URI
9. Appropriate Testing of Pharyngitis

*DHMP will report on those measures that have a statistically significant sample size of > 30. DHMP agrees to provide the City and County of Denver with all of the above HEDIS results for our overall commercial population. Failure of DHMP to meet or better the National HMO published averages at the 50th percentile, or a 3% increase compared to the previous year, on the best 10 out of the 11 indicators will result in a credit of 0.0625% per quarter reported.

	Effectiveness of Care Measures	HEDIS 2016	HEDIS 2017	HEDIS Percentile	≥ 50th Percentile or 3% ↑ over the past year
1.	Breast Cancer Screening (BCS)	65.81%	69.91%	25th	≥ 3% ↑
2.	Adult BMI Assessment (ABA)	97.08%	92.21%	90th	≥ 50th%
3.	Childhood Immunization Status – Combo 2 (CIS)	88.41%	89.68%	90th	≥ 50th%
4.	Childhood Immunization Status – Combo 3 (CIS)	88.41%	89.68%	95th	≥ 50th%
5.	Comprehensive Diabetes Care – HbA1c <8 (CDC)	47.73%	50.77%	10th	≥ 3% ↑
6.	Comprehensive Diabetes Care – BP <140/90 (CDC)	75.53%	69.97%	50th	≥ 50th%
7.	Controlling High Blood Pressure (CBP)	62.53%	69.83%	75th	≥ 50th%
8.	Appropriate Treatment of Children with URI (URI)	95.42%	89.32%	25th	Did not meet
9.	Appropriate Testing of Pharyngitis (CWP)	88.54%	77.46%	10th	Did not meet

HEDIS 2017 results summary:

Out of the 9 measures City and County of Denver chose, DHMP met performance standards, of a 50th percentile benchmark or a 3% improvement, on 7 of the measures.

The **Appropriate Treatment of Children with URI (URI)** measure dropped from 95.42% in 2016 to 89.32% in 2017, a rate decrease of 6.10%. Currently, the URI measure is at the 25th percentile and will require a 0.55% rate increase to reach the 50th percentile.

The **Appropriate Testing of Pharyngitis (CWP**) measure dropped from 88.54% in 2016 to 77.46% in 2017, a rate decrease of 11.08%. Currently, this particular CDC measure is at the 10th percentile and will require a 2.37% increase to reach the 25th percentile, and a 9.40% rate increase to reach the 50th percentile.

Analysis and Rate Details: The analysis of HEDIS measures for appropriate testing for children with pharyngitis (CWP) and appropriate treatment for children with upper respiratory infections (URI) examined both numerator and denominator drivers of the rate change.

CWP COMM population HEDIS 2017 (H2017)			
		Numerator Compliant	Rate
Total population H2016 (Data year 2015)	96	85	88.54%
Total population H2017 (Data year 2016)	71	55	77.46%
HMO population	32	23	71.88%
POS population	39	32	82.05%

URI COMM population HEDIS 2017 (H2017)			
		Numerator Compliant	Rate
Total population H2016 (Data year 2015)	153	142	95.24%
Total population H2017 (Data year 2016)	103	92	89.32%
HMO population	51	47	92.16%
POS population	52	45	86.54%

Both the numerator and the denominator component were driven by changes to the Eligible Population (EP) for both the CWP and the URI measures. Since the EPs for both of these measures are relatively small, and smaller in this reporting year, EP shifts within a small group can cause large rate shift, exaggerated by even small changes in the number of non-compliant members.

Appropriate Treatment of Children with URI (URI):

URI saw that 11 noncompliant members caused the rate to decrease. This was 4 more numerator negative people in measure than the previous year, and it caused a large rate change.

The URI measure did have City and County of Denver members in the "commercial" HEDIS population, and they were all compliant with the measure. None of the non-compliant instances were City and County of Denver plan members. 100% of the City and County of Denver members got the appropriate care for this measure.

Appropriate Testing of Pharyngitis (CWP):

CWP is showing the same effect, there were 16 noncompliant members in H2017, and that 5 additional noncompliant members in a small EP caused a large rate change.

Upon medical record analysis, we found some HEDIS cases where the content was present in the encounter, but missing on the claim. This is an opportunity for intervention.

The CWP measure did have City and County of Denver members in the "commercial" HEDIS population, and they were all compliant with the measure. None of the non-compliant instances were City and County of Denver plan members. 100% of the City of Denver members got the appropriate care for this measure.

Interventions:

We have added encounter data for select measures, including CWP, as supplemental data to claims data, with the addition of supplemental data as a flat file in CY 2017. We have seen preliminary increases in administrative data with an increase from 77.5% to 92.6% for the next reporting year (data year 2017).

In addition, there is a planned enhancement to the DHMP data warehouse in 2018 that will include systematic inclusion of encounter data on an ongoing basis. This will include extensive encounter data sets, and will continue to be used as a supplemental data source (SDS) for upcoming HEDIS reporting, resulting in sustained improvements in rates anticipated in CY 2019.

Beyond improvements in data capture, the CWP and URI performance is presented in August of 2017 to the DHHA ACS Quality Improvement Workgroup for Pediatric Care for their discussion and recommendation on provider education for both coding and encounter capture, and for best practices for pharyngitis care for children age 3-18 years, and for URI treatment for children age 3 months -18 years.

Member Satisfaction Performance Standard

The 5.0 version of the CAHPS Health Plan Survey has been in use since 2013. DHMP conducts the CAHPS Adult Survey 5.0H annually.

CAHPS Questions	2015 CAHPS	2016 CAHPS	2017 CAHPS	2017 NCQA Quality Compass Mean	Compared to Mean
Satisfaction with the Health Plan					
Overall Rating of Health Plan Report score of 8, 9, 10 category	61.3%	61.4%	66.4%	63.3%	3.06% above
Flu shot (ages 18-64) Report yes responses	84.1%	85.2%	85.61%	48.13%	37.48% above
Getting Needed Care					
Overall Rating of Health Care Report score of 8, 9, 10 category	72.9%	68.6%	74.91%	77.23%	2.32% below
Easy to get appointment with specialist Report score of always/usually	67.1%	59.7%	71.97%	84.16%	12.19% below
Easy to get care, tests, or treatment believed necessary Report score of always/usually	77.8%	78.6%	79.85%	88.75%	8.9% below
How Well Doctors Communicate					
Explain things in a way you could understand Report score of always/usually	96.5%	97.2%	96.98%	96.06%	0.92% above
Listen carefully to you Report score of always/usually	94.6%	96.8%	94.85%	95.03%	0.18% below
Show respect for what you had to say Report score of always/usually	96.1%	98.8%	98.28%	96.18%	2.1% above
Spend enough time with you Report score of always/usually	91.4%	95.2%	92.70%	93.06%	0.36% below

In the event DHMP falls below the NCQA Quality Compass Mean on any of the above on the best seven (7) survey questions out of nine (9), a credit to the quarterly premiums of 0.0625% per question, for the quarter reported, will be made.

From the 9 CAHPS scores, four (4) of the best seven (7) survey questions out of nine (9) performed above the national Quality Compass mean. Three (3) of the best seven (7) were below the Quality Compass mean.

Analysis:

DHMP has maintained high levels of satisfaction for how well doctors communicate, and both scores that are below the mean are less than 0.36% below the national average. As a result of relatively high satisfaction with low level of variance below the mean, these scores are being monitored, but not identified for active intervention.

DHMP has made significant improvement compared to last year in all of the Getting Needed Care section of questions, by an average of over 6% improvement (a range of 1.25% to 12.25%). These improvements are likely the result of ongoing efforts to improve access and quality of care, including the opening of a new clinic in southwest Denver; expanded hours at clinic locations, including Saturday hours; and partnerships with Ambulatory Care Services (ACS) to address quality measures. However, these measures are still below the national average by 2%-12%.

Scores related to Getting Needed Care fell below the national average, and issues around access are being investigated. Ongoing assessments of network adequacy, including standards for member and provider ratios by provider type, and an analysis of geographic access, showed the network met standards in 2017.

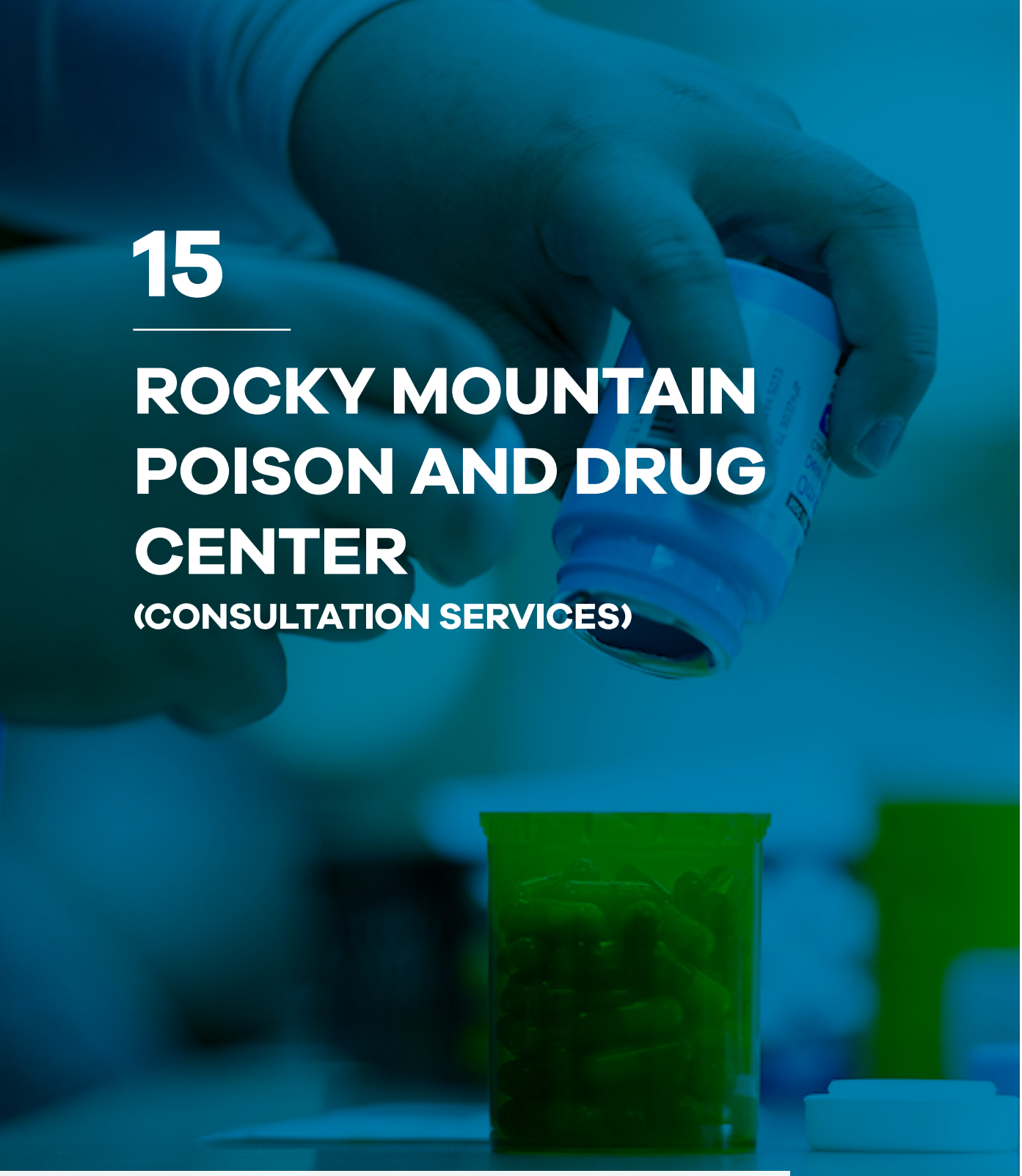
Interventions:

Health plan customer service is a DHMP strategic priority for 2018. For access-related support, the DHMP Member Services Department is available to assist members with obtaining an appointment in an effort to improve successful access of available services. In addition, completing an analysis of member and provider portals, and the development of an enterprise-wide customer service management plan, will be created as part of a comprehensive member experience plan in 2018.

To facilitate ongoing improvements, results of CAHPS surveys are reviewed and discussed annually with the DHMP Quality Management Committee (QMC), DHMP operational leadership, ACS and DHHA Executive Staff, and the DHMP Board of Directors. The QI team completes a comprehensive Open Shopper Study annually, and actively follows through on recommendations to improve access, accuracy of member materials, and customer service. DHMP QI partnerships with ACS will continue to facilitate improved access and member experience.

We have worked to increase access to primary care – expanding our existing clinics, opening the new Federico F. Peña Southwest Family Health Center, hiring more providers, and increasing clinic hours in 2016-17. This significant increase in primary care, especially for the un- and under insured patients, is a critical component in improving overall health status in the community. However, the increase results in large increased demand for specialty services. Nationally, access to specialty services for the uninsured and Medicaid population is extremely difficult. The creation of an Outpatient Medical Center (OMC), beginning in 2018, will allow us to expand specialty care services in a similar way, nearly doubling our outpatient capacity and allowing us to better meet the needs of our patients.

The OMC will be an over 280,000 square-foot, state of the art facility located just across from the main hospital that will consolidate 20 specialty clinics, procedural areas, day surgery, and ancillary services into one convenient location, providing increased space and access in specialty care areas such as cardiology, orthopedics, outpatient behavioral health, and dental services. Once the OMC is complete, it will also free space on the main campus to continue growth in pediatric services and allow us to increase the number of inpatient psychiatric beds.



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ROCKY MOUNTAIN POISON AND DRUG CENTER

(CONSULTATION SERVICES)

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Appendix A-8 Rocky Mountain Poison
1.4 Performance Criteria

A. Telephone lines will be answered within six rings. The Poison Center will answer phones 24 hours a day, 365 days a year.

Response:
Telephone lines were answered within four rings. The Poison Center provides information to health care professionals and the public 24 hours a day, 365 days a year.

B. Physicians will respond to complicated, difficult or unusual cases within 10 minutes of page.

Response:
Physicians responded to complicated, difficult or unusual cases within 10 minutes of being paged in 99.9% of cases.

C. The Center will maintain certification by the American Association of Poison Control Centers.

Response:
The Rocky Mountain Poison Center was re-certified in 2017 by the American Association of Poison Control Centers. The current certification is effective through 2022.

D. The Center will provide public education in the Denver Metro Area.

Response:
In 2017, the Rocky Mountain Poison Center distributed 8,659 pieces of public education materials on poison prevention for human and animals, in both Spanish and English, in the Denver Metro area.

E. The Rocky Mountain Drug Consultation Center will answer telephone calls within six rings during working hours 8:00 a.m. to 4:30 p.m., Mountain Time.

Response:
The Rocky Mountain Drug Consultation Center answers telephone calls within six rings and is staffed 24 hours per day, seven days per week, 365 days per year.

F. The Authority will provide an annual report by May 1 of the year following the year being reported on, which includes the following information for the year just ended and the previous fiscal year:

Number of calls from Denver County and total State calls for:
Poison Center
Drug Consultation Center

ROCKY MOUNTAIN POISON & DRUG CENTER
Consultation Services

Total Calls	Denver 2013	State 2013	Denver 2014	State 2014	Denver 2015	State 2015	Denver 2016	State 2016	Denver 2017	State 2017
Poison Center	14,207 [2]	91,196 [2]	14,195 [2]	87,804 [2]	10,676 [2]	88,188 [2]	10,488 [2]	77,550 [2]	9,421 [2]	69,559 [2]
Drug Consultation Center	278	127,845**[1]	351	106,762**[1]	170	68,244**[1]	35	82,522**[1]	131	87,153**[1]

**Combines Denver County, state and out-of-state calls and electronic responses

[1] Client base changes annually, since 2009.

[2] Includes poison center calls and public health emergency service calls (COHELP)

Call Volume Trends Analysis: While total Denver calls for Poison Center services have decreased 10% over the last year, the decreases are related to information calls – exposure calls remain constant or increasing. RMPDC has launched a new Colorado Poison Center website (www.copoisoncenter.org) in March 2018 which includes functionality to have inquiries submitted through webchat, text and email to improve ease of getting information for the public. We believe this will help to restore volumes especially amongst younger adults who are more accustomed to non-phone interactions. The new website also includes information and a means to connect to the Marijuana Health & Safety Line. Drug Consultation Center total volumes for Denver have increased over 3-fold by promoting the service to both NurseLine and Poison Center for inquiries related to safe use of pharmaceuticals. Additional volumes can be realized promoting the phone line to city agencies who also frequently get such requests for information and we would like to further that during 2018 in conjunction with DDPHE.

G. The Authority will provide a quarterly report to the City in the format attached to this Appendix, which indicates the amount of year-to-date expenses and revenues for the Rocky Mountain Poison and Drug Consultation Center by the 45th day after the end of the reporting period. (Please see the report below that is provided monthly).

2017 Monthly Denver Health RMPDC A-8 Services

Providing Drug Consultation Services for the City and County of Denver

Drug Consultation Center Program (A-8 Program)	1Q2017	2Q2017	3Q2017	4Q2017	2017 Total
Denver Drug Consultation Line Case Volume	18	17	53	43	131
All Other Drug Center Client Case Volume	23,016	23,566	21,572	18,999	87,153
Total Drug Center Cases	**23,034**	**23,583**	**21,625**	**19,042**	**87,284**
Other RMPDC Services Benefitting Denver Residents					
Poison Center Cases from Denver county (answering calls 24/7/365 within 6 rings**)* [1]	1,129	1,185	1,074	1,053	4,441
Poison Center Cases from All Others (only Colorado calls)* [2]	9,088	8,445	7,775	5,271	30,579
Poison Center Public Education Pieces (English or Spanish) Distributed to Denver County*	4,499	1,615	1,045	1,500	8,659

[1] *These volumes do not include calls to COHELP line for public health information*

**Poison Center is certified by American Association of Poison Control Centers thru 2017*

***Poison Center physician escalations occur within10 minutes*

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CLINICAL LAB SERVICES

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Appendix A-10 Clinical & Lab Services for the City's Department of Public Health and Environment

1.4 Performance Criteria

A. Laboratory test Turn Around Time (TAT). The TAT for laboratory testing will be calculated from the date and time that a specimen is received in the Authority's Department of Pathology and Laboratory Services (DPLS).

1. The Office of Medical Examiner shall deliver specimens to DPLS.
2. Chemistry, Hematology, Blood Banking, and Special Chemistry test results shall be available within four (4) business days following receipt by DPLS.

   Response:
   Turnaround times were met within a 24 to 72 hour completion of all assays ordered and performed in 2017. Approximately 90% of all test results were sent within 60 minutes of receipt, while the remainder were specialty or send out testing.

3. Routine Microbiology culture results (excluding cultures for fungi or mycobacteria) shall be completed within five (5) business days following receipt by DPLS.

   Response:
   Turnaround times were met with a completion of all routine microbiology cultures in 5 days or less.

4. Routine Histology slides shall be available within five (5) business days following specimen receipt by DPLS.

   Response:
   Turnaround times were met for all routine histology slides being available within 5 days or less.

5. Molecular Diagnostics test results performed in-house by DPLS shall be available within five (5) business days following specimen receipt by DPLS.

   Response:
   Turnaround times were met with all in house Molecular Diagnostics tests being resulted within 5 days or less from receipt.

6. The City shall notify DPLS of any time-sensitive testing requirements. On request for time-sensitive laboratory testing, the Authority shall meet the time requirements of the City whenever possible.

Response:
There were zero incidents in which DPLS was notified of time-sensitive testing requirements.

7. If the laboratory is unable to run a requested test within the TAT specified, it shall immediately notify the Office of Medical Examiner or other affected City agency.

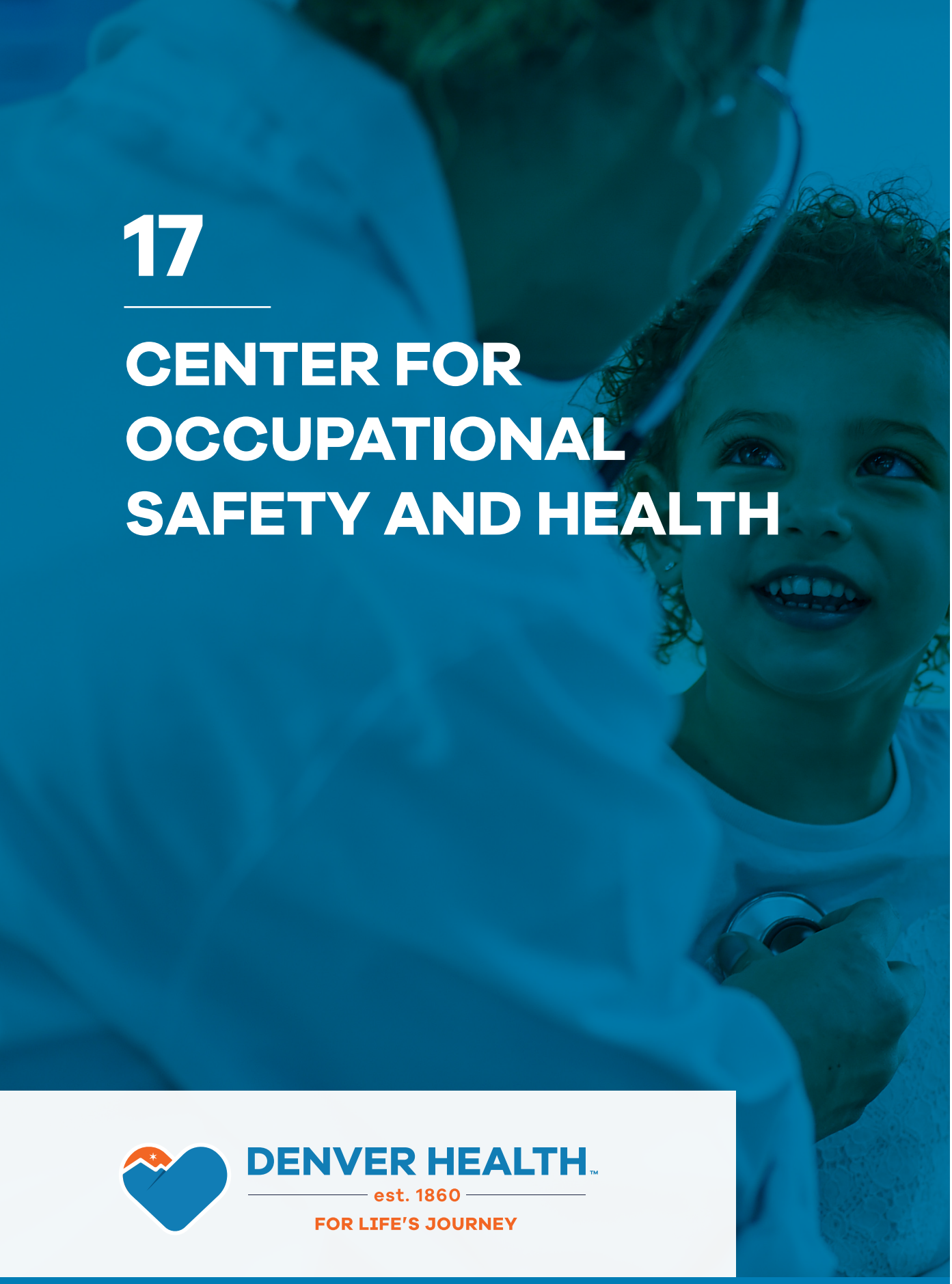
Response:
There were no incidents in which DPLS needed to be notified of any situations where TATs could not be met.

B. All concerns or complaints regarding laboratory services shall be directed to the Director of Pathology and Laboratory Services.

Response:
There were no incidents of concerns or complaints where the Director of Pathology and Laboratory Services was notified by the office of the Medical Examiner in 2017.

C. The laboratory code of ethical behavior ensures that all testing performed by the laboratory are billed only for services provided. All marketing and billing is performed in accordance with community standards; all billing is for usual and customary services. All business, financial, professional, and teaching aspects of the laboratory are governed by standards and professional ethics.

Response:
There were no incidents of concerns or complaints with billing where the Director of Pathology and Laboratory Services was notified in 2017. However, during an internal Denver Health audit, it was identified that a page of the fee schedule was missing from the Operating Agreement. The page was sent to the city and added to the 2018 agreement.



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CENTER FOR OCCUPATIONAL SAFETY AND HEALTH

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Appendix B-1 Center for Occupational Safety and Health (COSH) and Worker's Compensation Triage Line (OUCH Line)

1.6 Reporting

A. Annual Report: The Authority will provide an annual report by May 1 of the year following the year being reported on, which includes performance statistics for the year just ended and the two previous fiscal years relating to the services provided to the City under this Appendix B-4. The report shall include, but not be limited, the following items for City employees:

Workers' Compensation Encounters:

- Initial visits;
- Follow-up visits;
- Emergency room visits;
- Number of referrals;
- Average time from initial treatment to maximum medical improvement

Response:

Center for Occupational Safety & Health (City Only)	2015	2016	2017
Workers' Compensation Encounters	3,289	3,044	3,583
Initial Visits (new workers' comp cases)	553	484	616
Follow-up Visits (workers' comp)	2,736	2,560	2,967
Emergency Room Visits (CSA only)	218	144	182
Referrals	927	796	961

Time from initial treatment to Maximum Medical Improvement (MMI) Per Body Part:

Response:

- Abdomen:
  - o Average: 11
  - o Median: 11
- Ankle:
  - o Average: 69
  - o Median: 35

- Arm:
  - Average: 90
  - Median: 45
- Back:
  - Average: 62
  - Median: 43
- Chest:
  - Average: 29
  - Median: 29
- Ear
  - Average: 198
  - Median: 198
- Elbow:
  - Average: 98
  - Median: 85
- Eye:
  - Average: 26
  - Median: 10
- Face:
  - Average: 14
  - Median: 7
- Finger:
  - Average: 71
  - Median: 29
- Foot:
  - Average: 52
  - Median: 27
- Forehead:
  - Average: 5
  - Median: 5
- Genitals:
  - Average: 26
  - Median: 26
- Groin:
  - Average: 34
  - Median: 32

- Hand:
  - Average: 41
  - Median: 24
- Head:
  - Average: 28
  - Median: 15
- Hip:
  - Average: 24
  - Median: 7
- Jaw:
  - Average: 48
  - Median: 48
- Knee:
  - Average: 79
  - Median: 56
- Leg:
  - Average: 51
  - Median: 30
- Lip
  - Average: 7
  - Median: 7
- Multiple:
  - Average: 72
  - Median: 37
- Neck:
  - Average: 63
  - Median: 22
- Nose:
  - Average: 66
  - Median: 56
- Rib:
  - Average: 7
  - Median: 7
- Shoulder:
  - Average: 108
  - Median: 92

- Stomach
  - o Average: 123
  - o Median: 123
- Thigh
  - o Average: 13
  - o Median: 13
- Thumb
  - o Average: 84
  - o Median: 67
- Toe
  - o Average: 61
  - o Median: 22
- Wrist:
  - o Average: 71
  - o Median: 47

Total MMI averaged days = 66

Total MMI median days = 34

***Any MMI over 300 days has been removed from data.**

Non-Workers' Compensation Encounters:
- By Agency or Department as identified in Schedule B-4 on page B-4-12;
- Other services as requesting in the prior contract year.

Response:

Center for Occupational Safety and Health

NON WORKERS COMPENSATION ENCOUNTERS BY DEPARTMENT - 2017

Agency	Total Encounters
Animal Control	1
Art Museum	20
Arts And Venues	32
Civil Service Commission	226
Department of Finance	1
Department of Safety	191
Denver International Airport	1
Environmental Health	15
Excise & License	2
Fire Department	99
General Services	20
Human Services	3
Parks and Recreation	537
Police Department	116
Public Library	65
Public Works	544
Sheriff's Department	288
Social Services	3
TOTAL	2,164

B. Performance Criteria Review: As part of the medical management process identified in section 1.4 of this Appendix, the COSH, on an ongoing basis, shall conduct a performance criteria review of the services provided by a consultant specialist as indicated in his/her file for each City employee for whom the physician has an open file based on an COSH referral. The COSH shall provide the completed reviews, including all raw data, to the Risk Management office quarterly at the end of the quarter in which the review was performed.

In addition, the Authority and City will jointly identify and expand the performance statistics measured and provided by the clinic for work related injuries to identify areas of improvement.

Response:

The COSH Medical Director and City Case Managers discuss this regularly as part of their monthly meeting.

C. Other Requested Reports: COSH shall provide such other reports as requested by Risk Management office to quantify services and workloads, evaluate performance, and identify achievement of best practices.

Response:

No additional response requested.

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NURSELINE SERVICES

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Appendix B-2 NurseLine Services
1.3 Performance Criteria

A. The NurseLine will respond to callers 24 hours a day, 365 days a year.

Response:
Criteria met.

B. Health Information Aides will intake calls, gather chief complaint or medical question and will collect demographics on calls where medical information is provided.

Response:
Criteria met.

C. Registered Nurses will provide medial triage utilizing Schmitt-Thompson Clinical Content to arrive at a final disposition of 911, ED, Urgent Care, Appointment or Home Care.

Response:
Criteria met.

D. ED Physicians will provide second level triage and staffing as determined necessary by the Authority.

Response:
Criteria met.

E. Language Translation will be provided for callers through DH Medical Interpretation Services or Cyracom Language Line Services.

Response:
Criteria met.

F. The NurseLine will strive to adhere to call center standards by Utilization Review Accreditation Commission (URAC) Healthcare Call Center Guidelines, National Committee for Quality Assurance Guidelines (NCQA), and the Health Insurance Portability and Accountability and Accountability Act (HIPAA).

Response:
Criteria met.

Appendix B-2 NurseLine Services
1.3 Performance Criteria

G. The Authority will provide a month report to the City through the Executive Director of the Department of Environmental Health in an agreed format. The report shall provide numbers for the total and for the target populations served that month and the amount of year-to-date expenses and revenues for the Denver Health NurseLine. The monthly report shall be submitted to the City by the 20th day after the end of each month.

Response:

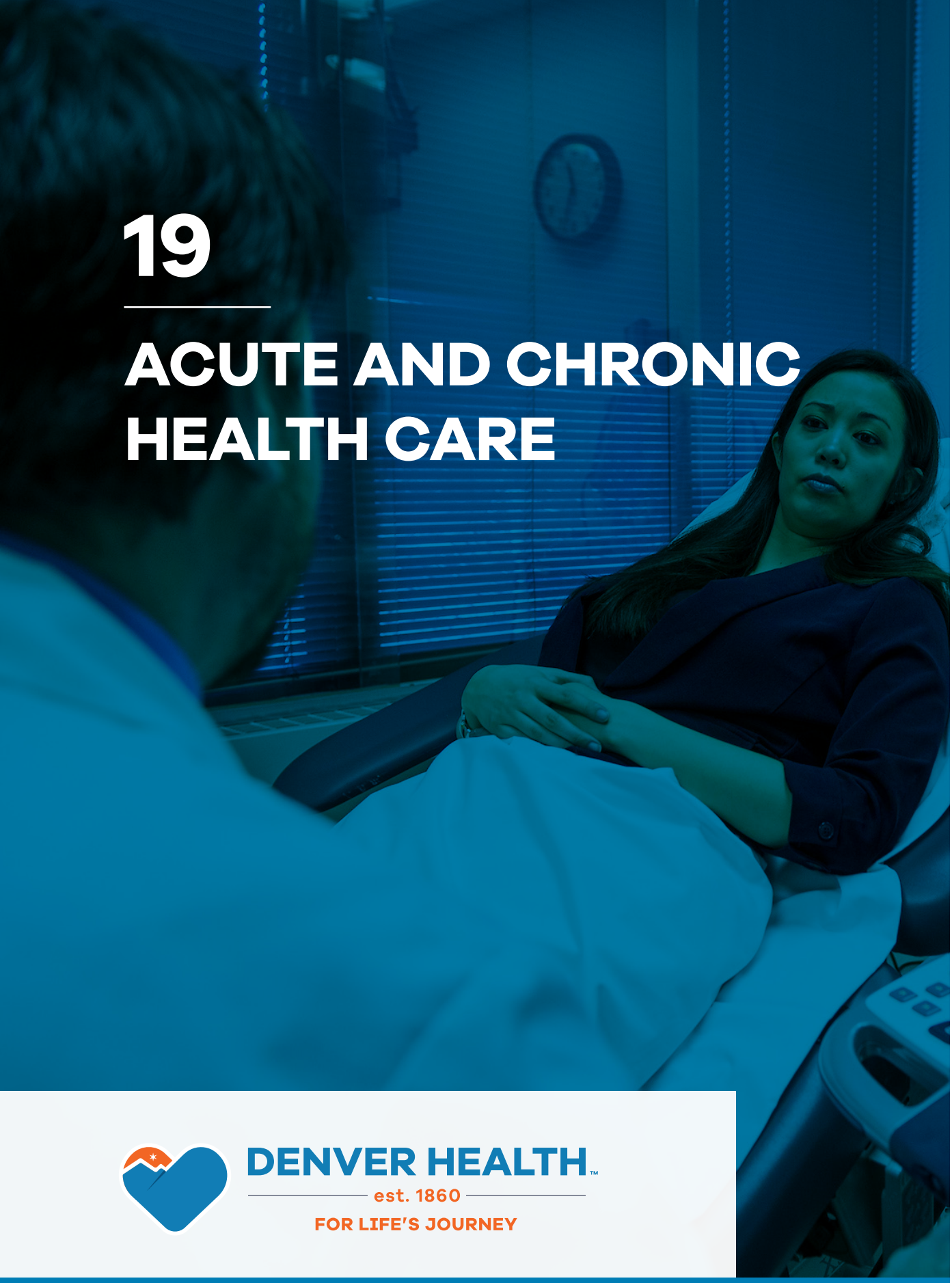
Reports have been supplied.

H. In addition to monthly reports described below, the Authority will provide an annual report by May 1 of the year following the year being reported on to the City through the Executive Director of the Department of Environmental Health. The report shall include the following information for the year just ended and the previous fiscal year: NurseLine medical triage cases in total; medical triage cases for uninsured, medically indigent patients from the City and County of Denver; physician medical triage cases; behavior health cases; all other cases; and medical interpretation cases.

2017 Denver Health NurseLine Services

	1Q	2Q	3Q	4Q	Total
City Program Case Volumes					
Uninsured Citizen Medical Triage Cases (non-DH patients)	311	363	444	471	1,589
Uninsured Citizen Behavioral Health Cases (non-DH patients)	2	4	9	6	21
Citizen Medical Triage Cases (non-DH patients insured)	2,672	2405	2314	2708	10,099
Behavior Health Cases (non-DH patients, insured)	29	54	49	44	176
Referral Cases (offer resources in the City; non-DH patients)	298	232	250	228	1,008
Totals	3,312	3,058	3066	3,457	12,893
Percent of all calls from Uninsured Denver Citizens	*9%*	*12%*	*15%*	*14%*	*12%*
Other Calls					
City Physician Medical Triage Cases (non-DH patients)	552	490	560	532	2,134
All other Medical Triage Cases (DH Patients who live in the City)	7,556	7687	8318	9106	24,093
Medical Interpretation (minutes; non-DH patients)	3,035	1271	1694	1852	7,852
Estimated Total Cost of Program	$ 87,264.11	$ 79,591.12	$ 81,202.57	$88,732.94	$ 336,790.74
*Total Cost to City for Uninsured***	$ 15,000.00	$ 15,000.00	$ 15,000.00	$15,000.00	$ 60,000.00

**This is a flat fee services contract for $60,000 for 2017 as per the agreement.



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ACUTE AND CHRONIC HEALTH CARE

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Appendix B-3 Acute and Chronic Health Care at Denver County Jail and Downtown Detention Center

1.7 Reporting Requirements

The Authority shall continue to provide the following reports unless modified by mutual agreement of the parties in the Utilization Management process.

A. Reports and meetings as required by the National Commission on Correctional Health Care and the American Correctional Association and to meet PREA standards;

Response:
NCCHC completed in 2017. ACA will be completed in 2018.

B. Sheriff's Department Monthly Statistical Report on Medical Activities;

Response:
These are sent out monthly.

C. Any meetings as deemed necessary by the Jail Administrator or the Health and Hospital Authority.

Response:
Attended as requested

D. Schedule C of health care personnel and specific jail assignments of specific days upon request by the Jail Administrator.

Response:
All of the above reports, meetings, schedules and statistics, were available and/or provided to a variety of stakeholders during 2017. Examples of these reports are monthly and yearly trended statistics for Inmate Health Services at the Downtown Detention Facility and the Denver County Jail; nursing, physician and mental health provider schedules; documentation of compliance with standards for the National Commission On Correctional Healthcare and American Correctional Association, and Quality Improvement Committee meetings. Additional reports have also been provided to the Denver Sheriff's Department throughout 2017, including monthly reports of Denver Health and Hospital Authority hospital charges, itemized bills for third party billing, utilization management reports and various special data requests.

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CHILD WELFARE

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Appendix B-4 Denver Department of Human Services (Child Welfare)
g. Performance Criteria: Assessment and Evaluation of children in the home

i. All pregnant women and children referred to the nurse visitation program will be assessed for risk and wellbeing within their home environment by a consistent team of nurse home visitors who would also support the establishment or maintenance of a medical home for the provision of prenatal care and/or episodic care for children (dependent upon ability to make contact and engage family). The Authority will track the number of pregnant women and children seen for nurse home visitation, evaluations, assessments, consults, referrals and discharge plans.

Response:
69 families were seen for nurse home visitations.

ii. The Authority will track the anticipated length of time to reach the stated goal: time can vary from one 60-minute home visit to four months of follow up with the family.

Response:
Home visits ranged from 1 to 9 visits during the four month period. The average visits to reach goal was four (4). As the frequency and number of home visits are dependent upon the individual needs of the families, the actual time to completion is variable.

iii. Indicators of success: Nurse assessments offer support for families as well as connections to indicated resources and services. Screening tools identify improvements in child and family conditions, such as reduced or less frequent child welfare contact, improved engagement with a medical home, increased immunization rates and decreased emergency room visits.

iv. The Authority will report on the following output indicators:

1. Number of referrals received;

Response:

2017 Referral Status	
Status	Referrals
Referral Unsuccessful - Unable to Locate	32
Referral Unsuccessful - Client Refused	81
Successful Referral	69
Total	182

2. Number of onsite consults:

Response:
306 consults.

3. Number of home visits attempted, and made;

Response:
There were a total of 382 attempted home visits, with 306 completed home visits

4. Number of unsuccessful attempts; and

Response:
There were a total of 76 unsuccessful home visits.

5. Number and type of resource connections made:

Response:
There were a wide variety of Resource Connections made for families served by the Nurse Home Visitation Program including:

Clothing/diapers: 29
Domestic Violence services: 1
Family Planning: 2
Housing: 60
Immunizations: 2
Medicaid: 5
Education: 31
Food: 18
Medical Home: 57
Mental Health: 10
Substance Abuse 4
WIC: 4
Daycare: 4
Legal: 5
Ongoing Programs: 8
Growth and Development Education: 16
Standard Safety: 51
Miscellaneous Educational Handouts: 31

v. The Authority and DDHS will report on the following outcome measures (to include, but not to be limited to).

1. Results on screening tools;
2. Establishment of medical homes;
3. Immunization rates;
4. Emergency Room visits; and
5. Timing and rate of subsequent child welfare referrals.

Response:

To date we have not been able to access and combine data sets to evaluate these outcome measures but are working with data analysts at DDHS and Denver Health to begin to access this data. This is somewhat limited due to difficulty in identifying information about individuals and families no longer being served by DDHS and/or Denver Health. Many of the children and families served by the program are not regular Denver Health patients, making some of this data difficult to track.

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MARIJUANA RESEARCH

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Appendix B-6 Marijuana Research
1.3 Performance Criteria

a. Using the emerging Business Intelligence infrastructure, the Authority will develop a comprehensive monitoring system in concert with the Office of Drug Strategy and the Mayor's Office of Marijuana Policy that includes data from a myriad of data sources (e.g., electronic health records, hospital and emergency department visits, school observations, traditional monitoring systems, and Rocky Mountain Poison and Drug Center (RMPDC) accidental ingestion data) to provide confidential and secure levels of detail depending on the purpose for which the data will be used. Prior to achieving access to and analysis of each data source, significant efforts will be required regarding development of governance rules and business associates agreements. Operational and technical processes to extract, transform, and load the data into a monitoring system will be required. Meetings with key stakeholders will define the requirements for analysis and reporting and help design the dashboards or reporting tools needed. A thorough quality assessment of the data will be undertaken with several cycles of data cleaning to assure valid and reliable results.

Response:

A standard process for poison center data extraction and aggregation was implemented, including update of substance specific inclusion criteria and downloads of poison center calls from January-September 2017. Because poison center call data is not finalized for 90 days, poison center data is extracted with a quarterly lag. The final 2017 quarter of data will be downloaded at the conclusion of Q1 2018. Development and user acceptance testing of the Rocky Mountain Poison and Drug Center dashboards was completed. Suppression rules were developed, tested and deployed to mask small cells and ensure the privacy of individual callers. Dashboards were presented to various stakeholder groups (e.g., data experts, other local public health agencies, and Office of Marijuana Policy, and Denver Partnership for Youth Success) to gather feedback on content, formatting, functionality, and navigation between data visualizations. Dashboards were updated to reflect input from stakeholders. Rocky Mountain Poison and Drug Center and Denver Health legal and compliance stakeholders reviewed and approved the dashboards for public release. A plan for release of dashboards to Denver Public Health's external website was drafted and implementation steps to reach a target go live in Q1 or Q2 of 2018.

Appendix B-6 Marijuana Research
1.3 Performance Criteria

b. Reports will be generated that describe patterns of usage for all defined groups. These may be stratified by age, socioeconomic status, race/ethnicity, gender, neighborhood and school. Focus groups will be conducted with those stakeholders (including the City) to assure the reports are meeting their specific needs.

Response:
Multiple reports were published in 2017 to describe patterns of marijuana use. The *Marijuana Use and Perception Compared to Other Substances among High School Students in Denver, CO in 2013 & 2015* report described changes in use patterns among youth and young adults using two years of data from the Healthy Kids Colorado Survey. A one page infographic was developed to compliment the Marijuana Use and Perception report and summarize key findings. A manuscript, Validation of a Syndromic Case Definition for Detecting Emergency Department Visits Potentially Related to Marijuana, was published in a national peer-reviewed journal, Public Health Reports, describing validation of a syndromic case definition for use in detecting potentially marijuana-related emergency department visits. Focus groups were conducted with DDPHE, Denver Office of Marijuana Policy and Denver Partnership for Youth Success to gather information on emerging marijuana related health issues.

b. Data sources that will be used may include:
- Denver Public Schools "Healthy Kids Colorado Survey";
- Denver Public Schools data on marijuana-related counseling and treatment referrals and disciplinary reports;
- Colorado Hospital Association data on youth hospital admissions related to marijuana intoxication compared to other substances;
- Rocky Mountain Poison and Drug Center data on accidental ingestions of marijuana; and
- Comparative monitoring data for Colorado and US using Youth Risk Behavioral Survey, Pregnancy Risk Assessment Monitoring System, the National Survey of Drug Use and Health, and the Behavioral Risk Factor Surveillance System.

Response:
All of the listed data sources were used to track the impact of marijuana on health in 2017. A case definition to identify marijuana related hospital admission and emergency department visits using ICD-9 diagnosis codes was expanded to include ICD-10 codes. The updated case definition was validated in partnership with CDPHE including a detailed

review of patterns during the ICD-9 to ICD-10 transition (fall 2015). Because stewardship of the hospital admission and emergency department visit dataset was transferred from CDPHE to the Colorado Hospital Association, DPH held meetings with CHA and signed an updated data use agreement with CHA for data exchange. A cannabis use disorder query within the CHORDS distributed EHR network was developed for testing and validation. Denver Public Health drafted a request to Denver Public Schools for access to Denver specific data regarding marijuana perceived risk and behaviors from Healthy Kids Colorado Survey. Denver Public Health gained access to Drug/Alcohol Coordinated Data System or DACODS data and began exploratory analysis.

d. Sample performance measures may include, but are not limited to:
- Percent of Denver children and youth reporting utilization of marijuana products;
- Percent of Denver children and youth reporting perceived risk around marijuana use;
- Percent of pregnant women reporting the utilization of marijuana products;
- Data on preferred consumption method;
- Data on unintended consumption, including the number or percent of marijuana-related calls to the Rocky Mountain Poison and Drug Center;
- Marijuana related deaths;
- Marijuana health-related indicator data;
- Comparison chart comparing Denver to Colorado and national statistics where possible; and,
- Percent of youth entering state funded treatment centers.

Response:

Many of the listed performance measures were assessed by Denver Public Health in 2017. Perceived risk and marijuana use among Denver youth was included in the Marijuana Use and Perception Compared to Other Substances among High School Students in Denver, CO in 2013 & 2015 including comparisons with state statistics. The CHORDS network provided preliminary data on the incidence of cannabis use disorder. EMS data was use to analyze the burden of substance use (including marijuana) among trauma transports of Denver youth to emergency rooms. Using Electronic Surveillance System for the Early Notification of Community-Based Epidemics (ESSENCE) syndromic surveillance data trends in marijuana emergency room visits from 2015-2017 were evaluated and compared with Colorado Hospital Association data.

d. The Authority will provide quarterly reports to the City which indicates the amount of year-to-date expenses and revenues for the Health Impacts of Marijuana Data Collection services, no later than forty-five (45) days after the end of each reporting period.

MARIJUANA RESEARCH

Response:

Four quarterly reports were drafted and submitted within 45 days of the end of each reporting period. Each quarterly report provided a comprehensive summary of activities occurring that quarter and expected activities in the subsequent quarter.

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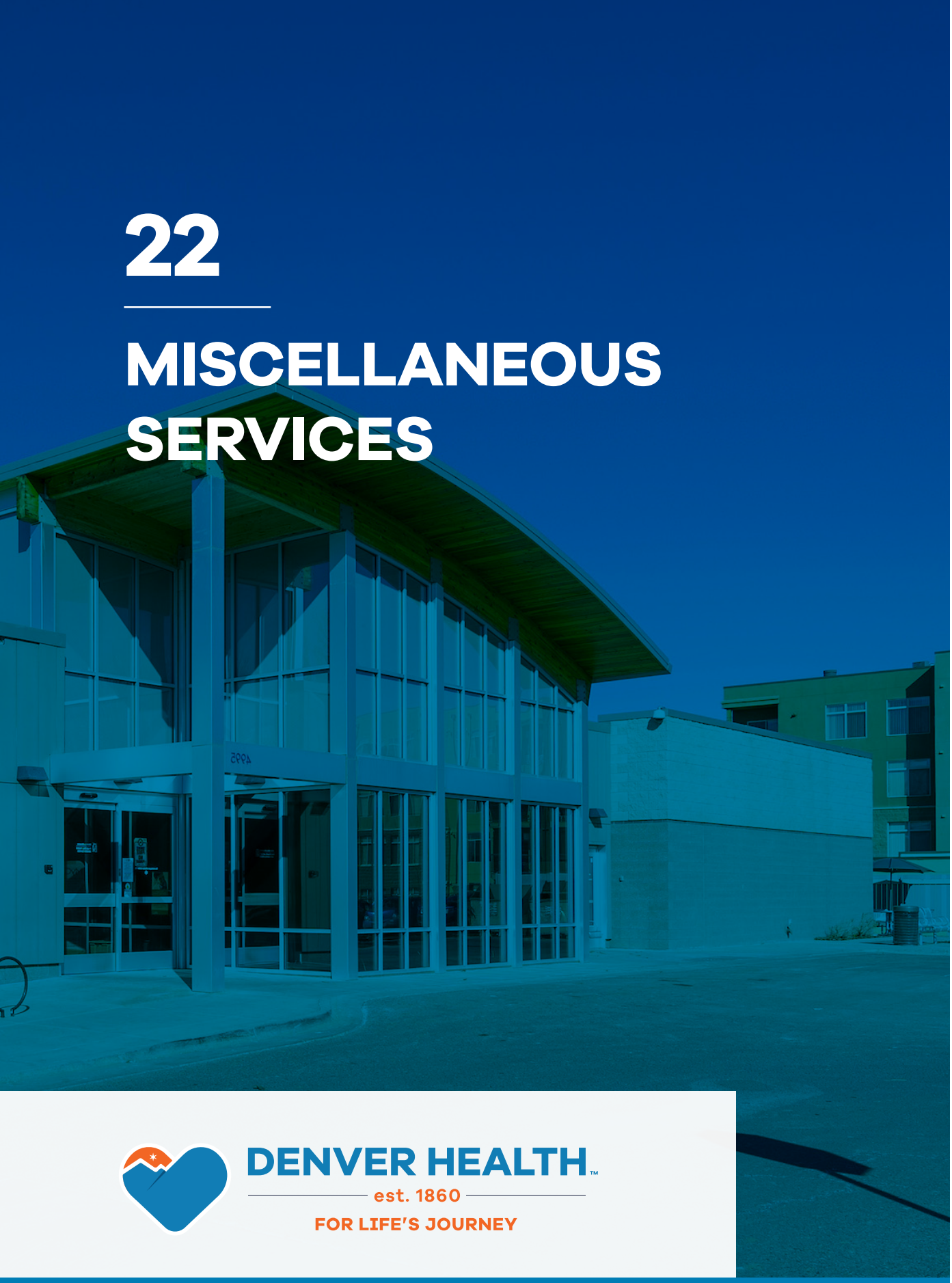
MISCELLANEOUS SERVICES



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Appendix B-7 Miscellaneous Services
1.1 Agreement to provide additional miscellaneous services

a. Occasionally during the year, the City requires and the Authority agrees to provide additional services, including materials, not specified in this Agreement. The Authority will provide reasonable medical services to the City upon request.

1.2 SANE

a. In accordance with State statute C.R.S. 18-3-407.5 which requires that the law enforcement agency referring a victim of sexual assault or requesting an examination of a victim of sexual assault pay for any direct cost associated with the collection of forensic evidence from such victims, the City hereby agrees to reimburse the Authority for the costs associated with the collection of forensic evidence of sexual assault victims, including photography services for cases of domestic violence, non-accidental trauma or other physical assaults, as requested or referred by a City law enforcement agency at the following per exam rates: $680.00 for victims and $235.00 for suspects, which is the Authority's actual cost. Forensic photography for cases of domestic violence, non-accidental trauma, or other physical assaults may also be provided by the SANE per law enforcement request and pending the availability of the examiner for a fee of $175.00. This payment is characterized as a fee for service.

b. The City will purchase, prepare, and provide the evidence kits to the Authority. The completed forensic evidence kit will be transported, using proper chain of custody procedures, to the Police Headquarters building.

c. The City will reimburse the Authority a maximum of $6,000 annually for the cost of registration and travel expenses for the training of new SANE program nurses. Requests for training must be submitted for approval at least four weeks in advance for any out-of-state travel and a minimum of two weeks in advance for in-state travel. An identified benefit to the Denver Police Department SANE Program must be included in the training request. Reimbursement for travel-related expenses will be subject to Denver Police Department and/or General Services Administration rates for reimbursement.

d. The Authority's SANE program nurses will collect and preserve forensic evidence and document the findings of victims of sexual assault. The SANE Program nurses will also conduct evidentiary exams of suspects in sexual assault cases in accordance with established protocol.

e. The Authority will bill the Denver Police Department on a monthly basis for exams. The

invoice must contain all of the following information: date of exam, delineation of victim/suspect, last name and first name initial, medical record number, encounter number, city/county designation, CAD #, General Offense (GO) # and cost. The Authority agrees to provide this service without charge to the victim.

f. The Authority will be responsible for all training and travel costs above the $6,000 annual cost for new SANE program nurses reimbursed by the City.

e. The Authority will present an annual accounting of costs of the program by the end of January of the following year. Requests for rate increases must be submitted to the City at least sixty (60) days prior to anticipated date of the rate increase and must be accompanied by supporting documentation.

Response:
Four quarterly reports were drafted and submitted within 45 days of the end of each reporting period. Each quarterly report provided a comprehensive summary of activities occurring that quarter and expected activities in the subsequent quarter.

Total SANE EXAMS	2016	2017
Victim Exams	397	361
Suspect Exams	11	15
Total	**408**	**376**

1.3 Expert Witness

The Authority agrees to provide expert witnesses to the City upon request for purposes of testifying in court and or other formal hearings involving the City.

Response:
Denver Health provides Expert witness support to the city when requested.

1.4 Competency Examination

The Authority agrees to provide competency evaluations or other investigative reports to determine competency as requested by the County Court. The Authority and the City's County Court have agreed to a new process, which includes scheduling a two (2) hour time block of time for a total of four (4) available examinations every Friday. These examinations shall be performed for a per report fee of $600.00. The City will pay the Authority a $225.00 preparation fee for each individual who fails to appear to the set examination. This payment is characterized as a fee for service.

Response:

Total Competency Exams	2016	2017
Total Exams Completed	111	152

1.5 Blood Alcohol Draws

The Authority will perform legal blood alcohol draws for individuals brought to the Authority Emergency Department by Denver law enforcement. The Authority will follow chain of custody procedures as set forth in Denver Health Policies and Procedures P-2.040. The law enforcement officer will take immediate possession of the specimen in accordance with the policy. The City will pay the Authority $29.00 per specimen based on the monthly invoice. This payment is characterized as a fee for service.

Response:

Total DUI Draws	2017
DUI Draws	277

1.6 Park Hill

The Authority has operated a family health center in the Park Hill neighborhood for many years. In order to assist the Authority in carrying out its mission, the City has committed to partially fund land acquisition, construction and equipping of the Park Hill clinic.

a. Pursuant to an Agreement (the Funding Agreement), the City has agreed to partially fund land acquisition and construction of the Park Hill Clinic. The City's maximum payment obligation for the land acquisition and construction of the Park Hill Clinic over the term of the Funding Agreement will not exceed $4.788 million. The City's annual contribution is subject to appropriation by City Council and is calculated in accordance with the formula contained in the Funding Agreement. For Fiscal Year 2017, the City's annual payment for its land acquisition and construction contribution to the Park Hill Clinic shall be $133,076.

Response:

Denver Health validates this number annually with the city and the invoicing process is updated accordingly.

1.7 South Westside Clinic.

The Authority constructed a new Southwest Family Health Center (formerly referred to as South Westside Clinic and South West Clinic) to serve the west Denver population. In order

to assist the Authority in carrying out its mission, the City committed to partially fund the construction improvements through proceeds of the Better Denver Bonds program (the "South Westside Clinic Proceeds") and the Capital Improvement Fund (CIF), pursuant to the terms of the Southwest Family Health Center Funding Agreement.

a. From 2017 and continuing through 2028, the City will pay an amount not to exceed $1,200,000 each year. The City's total funding for the clinic from all sources for all time shall not exceed $22,150,000.

Response:
Denver Health validates this number annually with the city and the invoicing process is updated accordingly.

1.11 At-risk Intervention and Mentoring (AIM) Program Performance Criteria.

a. The Authority will provide the City with medical services in accordance with the terms and the standard of care stated in the Operating Agreement.

Response:
Denver Health provides services in accordance with the operating agreement using the budget table below. The 2017 AIM Data for Invoices table is also provided to the City.

Cost Center	Personnel	Supplies & Services	TOTAL
At-Risk Intervention and Mentoring (AIM)	30,727	133,266	163,993
			-
TOTAL At-Risk Intervention and Mentoring (AIM)	30,727	133,266	163,993

2017 AIM Data for Invoices	
Measure	**YTD Total**
Number of bedside interventions	**200**
Individuals served (unduplicated)	**241**
Trauma-informed care trainings	**57**
Critical crisis interventions	**41**