



REPORT TO THE CITY 2018



**DENVER
HEALTH™**

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FOR LIFE'S JOURNEY

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01

LETTER FROM THE CEO



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Honorable Mayor Michael B. Hancock
City and County of Denver
1437 N. Bannock Street, Room 350
Denver, CO 80202

April 26, 2019

Dear Mayor Hancock,

I am pleased to provide you the 2018 Denver Health and Hospital Authority Compliance with Operating Agreement Performance Report. Last year our dedicated staff successfully provided services to more than one third of Denver's adults and children. As a mission-driven hospital that serves the uninsured and underinsured, we provide more than \$246 million of uncompensated care to the people of Denver every year. While debate swirls around the high cost and accessibility of health care in Colorado, we are proud to be providing high quality, cost effective care to all.

At Denver Health, we strive every day to make a meaningful difference in our community. We do this in many ways: through the medical care we provide; the support we offer families in crisis and the outreach and education we deliver. But we recognize that challenges remain and that needs sometimes go unaddressed. That's why last year we partnered with the Colorado Health Institute, a non-profit, non-partisan health research group, to develop a community engagement plan with the goal to identify areas where we can make an impact with innovative solutions. We do our best work when we're focused on our community's needs and hopes. When our community succeeds, we succeed. I look forward to sharing more as we develop our plans.

To best serve our community, we need to keep up with the demands of our rapidly growing City. As Denver grows, we must grow too. In 2018, we broke ground on the new Outpatient Medical Center (OMC) on Bannock Street. The 293,000 square foot building will bring our outpatient specialty clinics under one roof, increasing our capacity for patients and offering expanded services. The OMC is taking shape in the Denver skyline thanks to the overwhelming support of voters who approved the General Obligation Bond in 2017. We are extremely grateful the City put its trust in us to deliver a state-of-the art facility for the people of Denver and expect to welcome our first patients next year.

Denver Health is well known for providing world class emergency care. We treat the sickest of the sick and welcome the toughest cases. Our reputation for excellence is built on the expertise and wherewithal of our staff including our doctors, nurses and paramedics. Last year we celebrated the career of our trauma surgeon, Dr. Gene Moore, naming our Level One Trauma Center after him. During more than four decades of service at Denver Health, Dr. Moore literally wrote the book on trauma medicine and has achieved international recognition. Last year we also acknowledged the heroic work of our Paramedic Division, holding our first paramedic

awards luncheon, put on by the Denver Health Foundation. Our paramedics respond to more than 112,000 calls every year and transport some 75,000 patients.

Last year we also made significant progress in the areas of research and education. Our new Office of Education established our first student database, onboarding more than 1,800 students in 30 health professions from 48 schools across the country. The University of Colorado's Primary Care Internal Medicine Residency, one of the leading training programs in the country, moved to Denver Health. And we launched a well-received Pilot Study Research Grant Program for junior investigators/faculty to allow them to move their research forward on a path toward external, peer reviewed funding.

We've been busy and we intend to stay that way. With staff and accomplishments like these, I feel immensely privileged to lead an exceptional safety net health care system and am excited about what 2019 will bring.

Sincerely,

A handwritten signature in black ink, appearing to read "Robin Wittenstein", with a long horizontal flourish extending to the right.

Robin D. Wittenstein, Ed.D., FACHE

02

ACCOLADES



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2018 MILESTONES

Clinical Services



We successfully rolled out Oscillation services in the NICU; this breathing machine delivers very small breaths by vibrating air at very high rates, helping NICU babies to breathe while helping to limit damage to delicate lung structures.



Our tobacco cessation program continues to show significant impact on adult smoking rates, resulting in improvements that have prevented one heart attack or stroke per week and over \$1M in hospitalization savings each year.



We successfully established our gender surgery program.



Our OB/GYN service streamlined patient care workflows to ensure that patients who have complications in their first trimester of pregnancy have immediate access to necessary care.



The Division of Ambulatory Care, in conjunction with our Directors of Services and Division Chiefs, successfully developed and rolled out changes in appointment templates, which has already begun improving access. For example, the GYN clinic was able to improve access, which resulted in a 9% increase in GYN surgeries over 2017. In December, 64% of medical specialties saw referrals within 20 days.



We achieved recognition as a Bariatric Center of Excellence.



We established the Center for Addiction Medicine and reorganized Wound Care services to better meet the needs of extremely vulnerable patients.



We started a substance treatment program in Denver City and County jails, where over 2,000 people were placed on buprenorphine for opioid use disorder.



We became a Blue Cross Designated Center of Excellence for our ACUTE Eating Disorder Unit and achieved a 35% increase in census due to the completed remodel/expansion of the unit.



We improved our online reputation in the Adult Urgent Care Center, lifting the Google rating from 2.1 stars to 4.3 stars.



Ambulatory Medicine saw 170,171 patients in 2018, the highest number ever and a 4% increase from 2017.



We opened a Transitions of Care clinic to assist patients being discharged from Denver Health, if they do not have a primary care provider.



We added urgent care services to our Winter Park Medical Center, providing expanded services while maintaining a lower cost alternative to emergency services.

Quality



We achieved our target for the ambulatory quality measures, with certain metrics (diabetes control and tobacco cessation) at their highest levels ever and 8 of 11 domains showing improvement.



For the third year in a row, we achieved improvements in Target Zero, with 50% reductions in CAUTI and surgical site infections.



We earned an “A” grade in the Leapfrog Hospital Safety Score.



We improved our CMS hospital rating to a 3 star.

Financial Performance

\$400K
ADDITIONAL
REIMBURSEMENT

A clinical documentation pilot project was rolled out in the neonatal intensive care unit, ensuring our work was appropriately documented and reimbursed. This effort resulted in significant additional reimbursement (~\$400,000), and highlighted opportunities for improvement across the organization. A more robust CDI program is a 2019 initiative as a result.

138
DCOH

The organization not only achieved strong financial results for the year, but improved total cash and days cash on hand, increasing by 10 days to 138 DCOH in 2018. The 2018 audit reflects a clean opinion with no findings or audit adjustments.

\$2M
SAVINGS

We completed a financing transaction for 550 Acoma, saving \$2M in interest based on financial performance.

24.9%
REALIZATION
RATE

We achieved a realization rate of 24.9%, 0.8% over target, driving a \$16.2M improvement in net patient service revenue, while achieving a 50% reduction in timely filing denials. The realization rate is an indicator of cents on the dollar collections performance, i.e., for each dollar charged, the amount collected is 24.9%. The gap is due to payer contracted rates, includes Medicare and Medicaid, as well as uninsured care provided to low income patients at a fixed co-payment amount.

Community and Academic Engagement



We started a psychiatric Physician's Assistant program to address severe workforce issues in behavioral health.



We successfully worked across the organization to develop a research platform to guide our investments in research over the coming years.



We launched the Pilot Study Funding Program for junior investigators. Seven junior investigators have been funded since January 2018.



We moved the University of Colorado's Primary Care track of the Internal Medicine Residency program from Rose Medical Center to Denver Health.



We held our inaugural Paramedics Awards Luncheon, netting more than \$50K for DH Paramedics.



We established a young professionals program in the Foundation: Next Generation Giving (NG2).



We successfully executed on a number of events, including the Nightshine Gala (\$1.4M in proceeds), a "Santa Express" holiday event, and the Refugee Outreach Clothing for Kids (R.O.C.K.), distributing over 5,000 new items of clothing to more than 350 newly arrived refugee children at the Lowry clinic.



We successfully implemented a new student database, allowing us to track all learners coming to Denver Health.



We completed a Community Engagement Plan, working with internal and external stakeholders, to guide our community activities for the next five years.



We established a Research and Education committee of the Board, in recognition of the importance of these aspects of our mission.



We created a national coalition of super safety net providers, working towards critical legislative and regulatory objectives, designed to provide financial stability and innovation for our institution.

Administrative and Operations



We recruited new leadership in Emergency Medicine (Dr. Stephen Wolf), Dentistry (Dr. Duane Mata), Behavioral Health (Dr. Christian Thurstone), and Anesthesiology (Dr. Howard Miller).



We redesigned radiology workload distribution and staffing, resulting in improvements in report turnaround time.



We successfully negotiated through the implementation of the Regional Accountable Entities and preserved our 77,000 member Medicaid Choice managed care plan, an important component of high-quality patient care and financial vitality for Denver Health.



We implemented Vizient's Action O/I benchmarking program.



We continued to show significant improvements in integration between our executive team and Directors of Service, particularly around strategic planning and operational excellence.



Nearly 90% of all physicians took our Provider Communication in Healthcare training.



We developed comprehensive plans to address multiple regulatory and compliance audits in managed care; plans are in the execution phase.



We rolled out new logo and signage across the organization.



We participated in key leadership roles in the community, including on the Denver Metro Chamber Health Care Cost Coalition, the Colorado Hospital Association Payment Reform Task Force and the Mayor's Behavioral Health Steering Committee.



We had a successful accreditation visit from HRSA for our community health services division.



We successfully renamed the trauma program the Ernest E. Moore Shock Trauma Center at Denver Health.

Infrastructure



We chose a new PACS system (radiology imaging management system), for implementation in 2019.



We successfully implemented a new budgeting system (Kaufman Hall).



We introduced a new Clinical Operations Scorecard, to measure progress against key operational metrics.



We started the Eastside renovation, using a low interest financing source from a community partner.

\$4.4M SAVINGS

We successfully implemented the CAPTIS purchasing membership initiative, saving a projected \$4.4 million through CAPTIS and similar initiatives.



We started construction on the Outpatient Medical Center, after successfully negotiating the zoning application.



We funded over 5,000 Lyft rides for patients and received significant positive PR on the program.



We launched a new Denver Health website.



We secured funding for the new Human Rights clinic at Denver Health.



We developed an Academic Enrichment Program as a way of providing funds for research and education projects.



We opened a new adult behavioral health unit.

2018 New Roles and Recognition

Dr. Gene Moore, our trauma surgeon, has contributed more than four decades of continuous service at Denver Health. During that time, he literally wrote the book on trauma medicine and has achieved international recognition. We celebrated his distinguished career by naming our Level One Trauma Center after him. The renaming of the Ernest E. Moore Shock Trauma Center is a fitting acknowledgment of his work. Dr. Moore also was awarded the 2018 Shock Society Scientific Achievement Award.

Kim Powell, an advanced practice nurse from the Denver Health HIV Care/Early Intervention Clinic, was awarded the prestigious statewide Nightingale Award in May. This award has been given in Colorado since 1986 and each year honors six nurses from across the state that advance the profession of nursing and positively impact their community through leadership, advocacy and innovation.

Denver Health welcomed **Dr. Stephen J. Wolf** as the new Director of Service for the Department of Emergency Medicine. From 2003 - 2014, he worked in the Denver Health and University of Colorado School of Medicine system. From 2014-2018, Dr. Wolf served as Associate Professor and Vice Chair for Academic Affairs at the University of Virginia School of Medicine. Dr. Wolf is nationally recognized as a leader in emergency medicine.

The Colorado Department of Public Health and Environment awarded **Denver Health** “gold status” in the Colorado Healthy Hospital Compact. This is an agreement between Colorado hospitals to protect and promote the health of patients, families, visitors and employees by improving nutritional offerings. The hospital increased the number of healthy snacks and beverages and ramped up breastfeeding support.

Healthgrades named **Denver Health** as a recipient of its 2018 Distinguished Hospital Award for Clinical Excellence. Hospitals recognized with this award performed among the top five percent in the nation for at least 21 of 32 inpatient conditions and procedures analyzed by Healthgrades.

Dr. Christian Thurstone accepted the position to serve as Denver Health’s new Director of Service for Behavioral Health. Dr. Thurstone has been at Denver Health for 13 years and has an international reputation for excellence in his field. He has addressed the United Nations, lectured to members of Sweden’s parliament, and, in 2012, was recognized by President Obama with a White House Advocates in Action Award for “outstanding leadership in promoting an evidence-based approach to youth substance use and addiction.”

Beth Neuhalfen, Operations Coordinator for Community Health Services Support, was presented an award by the Centers for Medicare & Medicaid Services Quality Conference for her work in specialty care related to individual and family engagement. Another award was

given to Denver Health's Ear, Nose and Throat clinic for its work with post-op calls, resulting in a decrease of avoidable Emergency Department visits and an increase of patients returning for post-op visits. **Dr. Scott Mann** and **Rosa Lara, RN** took the lead on the ENT clinic project.

Denver Health's occupational therapy (OT) fieldwork program was named Colorado State University's OT Fieldwork Education Site of Excellence for 2018. OTs **Cathy Goetz, Melissa Weiser-Rose** and **Karen Hormachea** were recognized. Denver Health's occupational therapists have mentored more than 118 fieldwork students during their service in the program.

Hospitalist **Dr. Mark Reid** received the 2017-18 Elaine Cleary, M.D., Faculty Award for Excellence in General Internal Medicine Education. The award is voted on by the University of Colorado School of Medicine's third- and fourth-year medical students and internal medicine house officers.

Awards and Honors

Last year, 16 organ donors from **Denver Health** donated 49 organs that were transplanted to save lives locally and across the country, earning Denver Health one of five Ending the Wait awards from Donor Alliance.

Denver Health was recognized as a health care leader by the Human Rights Campaign for the fifth consecutive year. The 2018 Healthcare Equality Index recognized Denver Health as the only hospital in the state deemed a leader in LGBT care. Our mission is to be the source of health care for the LGBT community, providing open and affirming care for all.

Denver Health pediatrician **Dr. Janine Young** received the 10th Annual Pro Bono Service Award at the 13th Annual Immigrant Liberty Awards. The event, hosted by the Rocky Mountain Immigrant Advocacy Network, honors outstanding contributions of immigrants and advocates in the community. Dr. Young was recognized for her expertise, guidance and passion on issues within the immigrant community.

Denver Health received a Metro Vision award from the Denver Regional Council of Governments on April 25 at the Colorado Convention Center. The award recognized Denver Health's youth program CareerConnect, which works with Denver Public Schools' students to become successful health care industry professionals.

Denver Health's LGBTQ Center of Excellence was honored at One Colorado Education Fund's annual fundraising event for its efforts in advancing LGBTQ+ health equity and making substantive differences in the lives of LGBTQ Coloradans.

America's Essential Hospitals presented **Denver Health's Target Zero** program a Gage Award honorable mention in the quality category to recognize our efforts to reduce preventable harm to patients from infections, falls and medication events and to improve quality of care.

Congratulations to **58 Denver Health physicians** for being named "Top Docs" for 2018 in 5280 Magazine. We are proud to have 22 more doctors recognized for their work this year than in 2017.

Denver Health's Community Health Services (CHS) was awarded more than \$280,000 in additional funding from the Health Resources and Services Administration for our work to improve hypertension and prenatal care, and to increase access for more than 10,000 patients. CHS was also recognized for its Patient Centered Medical Home work for full spectrum care delivered from a patient's chosen medical home. The funding was used to further quality improvement work and benefit all of the approximately 168,000 patients that CHS saw in 2018.

Denver Public Health was recognized at the National Association of County and City Health Officials for two initiatives — the Healthy Beverage Partnership (HBP) and the Metro Denver Partnership for Health (MDPH) with model practice awards. Chair of the MDPH, Denver Public Health Director Dr. Bill Burman, formed a collaborative effort to improve health for more than three million Coloradans. **Jennifer Moreland**, Chronic Disease Prevention manager, leads the HPB and works to decrease childhood obesity by reducing sugary drink consumption.

Denver Health was awarded \$320,000 from the Health Resources and Services Administration (HRSA) to combat the opioid crisis through funding substance abuse treatment and medically-assisted therapy. HRSA's goal is to assist health centers, academic institutions and rural organizations in expanding services for substance use disorder and mental health nationally.

The Colorado Association of Healthcare Executives, a not-for-profit organization that serves health care executives in the state of Colorado by providing networking, continuing education and professional development, appointed Associate Chief Operating Officer of Ancillary Support, **Mario Harding**, as president-elect.

The Committee on Trauma of the American College of Surgeons re-verified **Denver Health as a Level One Trauma Center** for another three years. Denver Health's Level One Trauma Center has one of the highest survival rates in the country — and our skilled and specialized physicians and surgeons in acute shock trauma are internationally recognized leaders in the field as some of the top trauma surgeons in the world.

Health Resources and Services Administration (HRSA) awarded a total of \$21 million to 46 health centers to support health center participation in the National Institutes of Health "All of Us" research program and help pursue precision medicine and population health. **Denver Health** was the only Colorado community health services recipient.

Denver Health has been designated as an **Antimicrobial Stewardship Center of Excellence** by the Infectious Diseases Society of America (IDSA). Antimicrobial stewardship programs seek to optimize antibiotic use to maximize the chance for good clinical outcomes and prevent harm such as antibiotic resistance and hospital-acquired infections. The IDSA Center of Excellence program recognizes hospitals that implement and maintain a highly effective antimicrobial stewardship.

Dr. Mark Kearns, Assistant Professor of Clinical Medicine in the Division of Pulmonary and Critical Care Medicine, received the 2017-18 Outstanding Faculty Teaching award from the University of Colorado School of Medicine.

Nursing Manager **Katherine Chichester, RN**, was selected for the 2018 Denver Metro Sure Shot Award for her impact on protecting the community from vaccine-preventable disease.

Denver Health's Public Health pharmacy received three-year credentialing by Express Scripts, the largest nationwide prescription benefit manager. Denver Health is now nationally recognized as a specialty pharmacy, allowing us to continue to provide patients with their specialty medications.

Anthem Health recognized **The ACUTE Center for Eating Disorders** as the world's first Center of Excellence for Medical Treatment of Severe and Extreme Eating Disorders.

The Gay, Lesbian, Bisexual and Transgender (GLBT) Community Center of Colorado has honored Denver Health Director of LGBTQ Center of Excellence **Kari Kuka** with a Transformation award. She has been recognized for her work to enhance transgender services, advocating for Denver Health to offer gender confirmation surgeries.

Denver Health Ambulatory Clinical Pharmacy Specialists Amber Cizmic and **Joel Marrs** received awards from the 2018 Annual Colorado Pharmacists Society. Cizmic was awarded the National Alliance of State Pharmacy Associations' Excellence in Innovation award for her work implementing a pharmacist-run latent tuberculosis clinic at the Denver Health Refugee Clinic in the Lowry Family Health Center. Marrs received the Pharmacist of the Year award in recognition of his dedication to advancing the pharmacy profession through his clinical, precepting and research activities.

Dr. Maria Moreira received the National Faculty Teaching Award from the American College of Emergency Physicians. Dr. Moreira has completed seven years as the program director of Emergency Medicine.

03

FINANCIAL STATEMENTS



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Denver Health and Hospital Authority
Statements of Net Position
December 31, 2018 and 2017

Assets and Deferred Outflows of Resources

	<u>2018</u>	<u>2017</u>
Current Assets		
Cash and cash equivalents	\$ 25,865,307	\$ 47,385,642
Restricted cash and cash equivalents	1,089	1,070
Short-term investments	22,540,609	-
Patient accounts receivable, net of estimated uncollectibles of approximately \$36,100,000 and \$28,699,000 in 2018 and 2017, respectively	53,311,297	63,703,796
Due from other governmental entities	27,804,281	26,232,566
Due from City and County of Denver	7,938,431	7,810,430
Other receivables	19,393,509	20,930,915
Interest receivable	2,537,603	2,029,061
Due from and investment in discretely presented component units	7,435,234	3,875,448
Inventories	11,398,356	10,483,234
Prepaid expenses and other assets	13,741,109	9,227,846
	<u>191,966,825</u>	<u>191,680,008</u>
Noncurrent Assets		
Notes receivable	15,432,000	15,432,000
Estimated third-party payor settlements receivable	4,060,881	5,561,710
Equity interest in joint venture	1,228,300	1,225,500
Restricted investments	53,186,009	21,668,767
Capital assets, net of accumulated depreciation	517,011,913	501,284,551
Long-term investments	313,657,174	267,378,285
Board-designated investments	14,100,000	36,500,000
Other long-term assets	2,582,946	2,150,234
	<u>921,259,223</u>	<u>851,201,047</u>
Total assets	<u>1,113,226,048</u>	<u>1,042,881,055</u>
Deferred Outflows of Resources		
Accumulated change in fair value of hedging derivatives	10,001,023	12,394,299
Deferred outflows of resources related to pension benefits	19,921,541	25,666,403
Deferred outflows of resources related to other postemployment benefits	1,499,180	-
Deferred outflow - acquisitions	243,667	329,667
Loss on refunding of debt	3,811,775	4,111,625
	<u>35,477,186</u>	<u>42,501,994</u>
Total assets and deferred outflows of resources	<u>\$ 1,148,703,234</u>	<u>\$ 1,085,383,049</u>

Denver Health and Hospital Authority
Statements of Net Position (continued)
December 31, 2018 and 2017

Liabilities, Deferred Inflows of Resources and Net Position

	<u>2018</u>	<u>2017</u>
Current Liabilities		
Current maturities of bonds payable	\$ 10,797,845	\$ 8,769,636
Current maturities of capital leases	428,003	375,576
Current maturities of notes payable	4,581,197	4,551,429
Current maturities of program support liability	6,960,000	6,288,000
Medical malpractice liability	5,036,063	4,580,262
Accounts payable and accrued expenses	67,713,351	50,469,438
Accrued salaries, wages and employee benefits	25,190,937	37,278,563
Accrued compensated absences	27,974,852	28,966,549
Unearned revenue	23,736,406	21,500,368
Derivative interest rate swap liability	1,075,643	1,500,183
Accrued claims	2,144,000	10,905,000
	<u>175,638,297</u>	<u>175,185,004</u>
Long-term Liabilities		
Long-term portion of liability for estimated third-party settlements	18,734,258	40,896,679
Long-term portion of compensated absences	136,581	137,992
Bonds payable, less current maturities	258,349,225	266,222,944
Capital lease obligations, less current maturities	-	428,003
Notes payable	96,465,696	56,170,045
Derivative interest rate swap liability	8,925,380	10,898,971
Program support liability	22,047,755	30,043,381
Net pension liability	105,588,100	120,035,324
Postemployment benefits	23,294,540	7,574,255
	<u>533,541,535</u>	<u>532,407,594</u>
Total liabilities	<u>709,179,832</u>	<u>707,592,598</u>
Deferred Inflows of Resources		
Deferred inflows of resources related to pension benefits	17,701,465	5,807,121
Deferred inflows of resources related to other postemployment benefits	781,380	-
	<u>18,482,845</u>	<u>5,807,121</u>
Total liabilities and deferred inflows of resources	<u>727,662,677</u>	<u>713,399,719</u>
Net Position		
Net investment in capital assets	171,472,396	160,517,460
Unrestricted	249,568,161	211,465,870
	<u>421,040,557</u>	<u>371,983,330</u>
Total liabilities, deferred inflows of resources and net position	<u>\$ 1,148,703,234</u>	<u>\$ 1,085,383,049</u>

Denver Health and Hospital Authority
Statements of Revenues, Expenses and Changes in Net Position
Years Ended December 31, 2018 and 2017

	<u>2018</u>	<u>2017</u>
Operating Revenues		
Net patient service revenue	\$ 644,397,553	\$ 545,380,959
Capitation earned net of reinsurance expense	136,653,112	218,010,773
Medicaid disproportionate share and other safety net reimbursement	148,941,660	114,752,531
City and County of Denver payment for patient care services	30,777,300	30,777,300
Federal, state and other grants	64,114,406	66,049,764
City and County of Denver purchased services	25,188,290	24,776,739
Poison and drug center contracts	25,349,639	22,852,467
Other operating revenue	44,032,947	34,286,943
	<u>1,119,454,907</u>	<u>1,056,887,476</u>
Operating Expenses		
Salaries and benefits	647,029,411	628,026,525
Contracted services and nonmedical supplies	190,460,688	193,422,000
Medical supplies and pharmaceuticals	132,390,682	125,253,288
Managed care outside provider claims	38,830,457	65,258,014
Depreciation and amortization	54,487,664	44,517,680
	<u>1,063,198,902</u>	<u>1,056,477,507</u>
Operating income	<u>56,256,005</u>	<u>409,969</u>
Nonoperating Revenues (Expenses)		
Increase in equity in joint venture	2,800	124,000
Bond issuance costs	(588,564)	(682,046)
Interest income	11,470,391	9,633,043
Interest expense	(15,200,176)	(14,355,713)
Gain (loss) on forgiveness of note payable/receivable	-	8,135,483
Net increase (decrease) in fair value of investments	(14,424,574)	9,287,858
Gain on disposition of capital assets	10,572	50,857
	<u>(18,729,551)</u>	<u>12,193,482</u>
Total nonoperating revenues (expenses)	<u>(18,729,551)</u>	<u>12,193,482</u>
Income before capital contributions	37,526,454	12,603,451
Contributions Restricted for Capital Assets	<u>25,115,272</u>	<u>1,516,042</u>
Increase in net position	62,641,726	14,119,493
Total Net Position, Beginning of Year, as Previously Reported	371,983,330	357,863,837
Adjustment for adoption of new accounting standard (Note 12)	<u>(13,584,499)</u>	<u>-</u>
Total Net Position, Beginning of Year, Restated	<u>358,398,831</u>	<u>357,863,837</u>
Total Net Position, End of Year	<u>\$ 421,040,557</u>	<u>\$ 371,983,330</u>

04

CONTRACT RECONCILIATION



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April 11, 2019

To: Peg Burnette, Chief Financial Officer, DHHA
From: Laurel Delmonico, Director of Administration, Denver Public Health & Environment
Subject: 2018 Denver Health Operating Agreement Contract Fiscal Close

Regarding the services outlined in the 2018 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 \$437,151. Therefore, 2018 is closed without the need for a contract budget amendment. Please see Exhibit A for a breakdown of the variance by appendix.

Per recent audit recommendations, DHHA and the City agree that this memo and the Exhibit A will be included in DHHA's 2018 annual report to the City.

This memo concludes the Operating Agreement fiscal year 2018 close out. The City deeply appreciates DHHA's partnership in serving Denver's most vulnerable populations, and your partnership in financial management and reporting.

A handwritten signature in black ink, appearing to read "Laurel Delmonico".

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

Exhibit A: 2018 Operating Agreement Contract Budget Variance by Appendix

Appendix	Description	2018 Final Approved Payment	2018 Type of Payment	2018 Final	Surplus/(Deficit)
A-1	Medically Indigent	\$ 30,777,300	Flat	\$ 30,777,300	\$ -
A-2	Denver Fire - training services, personnel, and supplies	\$ 583,819	Flat	\$ 583,819	\$ -
	Denver Fire - recruit training	\$ 23,308	Actual Cost	\$ 22,468	\$ 840
	Englewood EMS Services	\$ 1,082,118	Flat	\$ 1,082,118	\$ -
	EMS at DIA	\$ 3,212,100	Actual Cost	\$ 2,929,049	\$ 283,051
	Medical Direction consolidated services (DPD/DFD)	\$ 122,288	Flat	\$ 117,209	\$ 5,078
	Medical Direction and QA/QI Services for Call Takers	\$ 101,709	Flat	\$ 101,709	\$ -
A-3	Public Health	\$ 2,225,736	Actual Cost	\$ 1,866,318*	\$ 359,418*
A-4	Denver CARES	\$ 3,098,644	Actual Cost	\$ 2,987,830	\$ 110,814
A-5	Substance Treatment Services	\$ 18,437	Flat	\$ 18,437	\$ -
A-6	Prisoner Care	\$ 4,000,000	Actual Cost	\$ 4,448,121	\$ (448,121)
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	\$ 13,208	\$ 11,791
B-1	COSH and OUCH Line	\$ 295,000	Actual Cost	\$ 330,719	\$ (35,719)
B-2	NurseLine Services	\$ 60,000	Actual Cost	\$ 60,000	\$ -
B-3	Jail Medical	\$ 13,261,822	Actual Cost	\$ 13,362,875	\$ (101,053)
B-4	Denver Department of Human Services	\$ 827,308	Actual Cost	\$ 662,800	\$ 164,507
B-5	Head Start Medical Services	\$ 520,000	Actual Cost	\$ 535,759	\$ (15,759)
B-6	Marijuana Research	\$ 173,857	Actual Cost	\$ 100,966	\$ 72,890
B-7	SANE	\$ 200,000	Fee For Service	\$ 176,480	\$ 23,520
B-7	DUI Blood Draws	\$ 8,000	Fee For Service	\$ 14,761	\$ (6,761)
B-7	At-Risk Intervention & Mentoring (AIM)	\$ 163,993	Actual Cost	\$ 150,326	\$ 13,667
B-7	South Westside Clinic	\$ 1,200,000	Flat	\$ 1,200,000	\$ -
B-7	OME Relocation	\$ 1,801,432	Flat	\$ 1,672,639	\$ 128,793
B-7	Park Hill	\$ 133,041	Flat	\$ 165,267	\$ (32,227)
B-7	Competency Exams	\$ 90,000	Fee For Service	\$ 179,025	\$ (89,025)
B-7	Substance Treatment & Education Program	\$ 89,200	Flat	\$ 89,200	\$ -
B-7	Heartsaver® Training	\$ -	Fee For Service	\$ 3,420	\$ (3,420)

Appendix	Description	2018 Final Approved Payment	2018 Type of Payment	2018 Final	Surplus/(Deficit)
B-7	Tactical Casualty Care Training	\$ -	Fee For Service	\$ -	\$ -
B-7	Psychological Fit for Duty Examinations	\$ -		\$ 2,357	\$ (2,357)
B-7	Office of the Medical Examiner Services	\$ -	Fee For Service	\$ 2,781	\$ (2,781)
			Contract Maximum	\$ 64,191,012	
			Total 2018 Expenditures	\$ 63,753,861*	
			Difference	\$ 437,151*	

*After Fiscal Year 2018 closed, the Authority identified an invoicing error for Appendix A-3, Public Health Clinical Services. The City has agreed to pay the outstanding \$81,000 invoice in fiscal year 2019. The expense will be reflected on the 2019 memo.

05

UNCOMPENSATED CARE



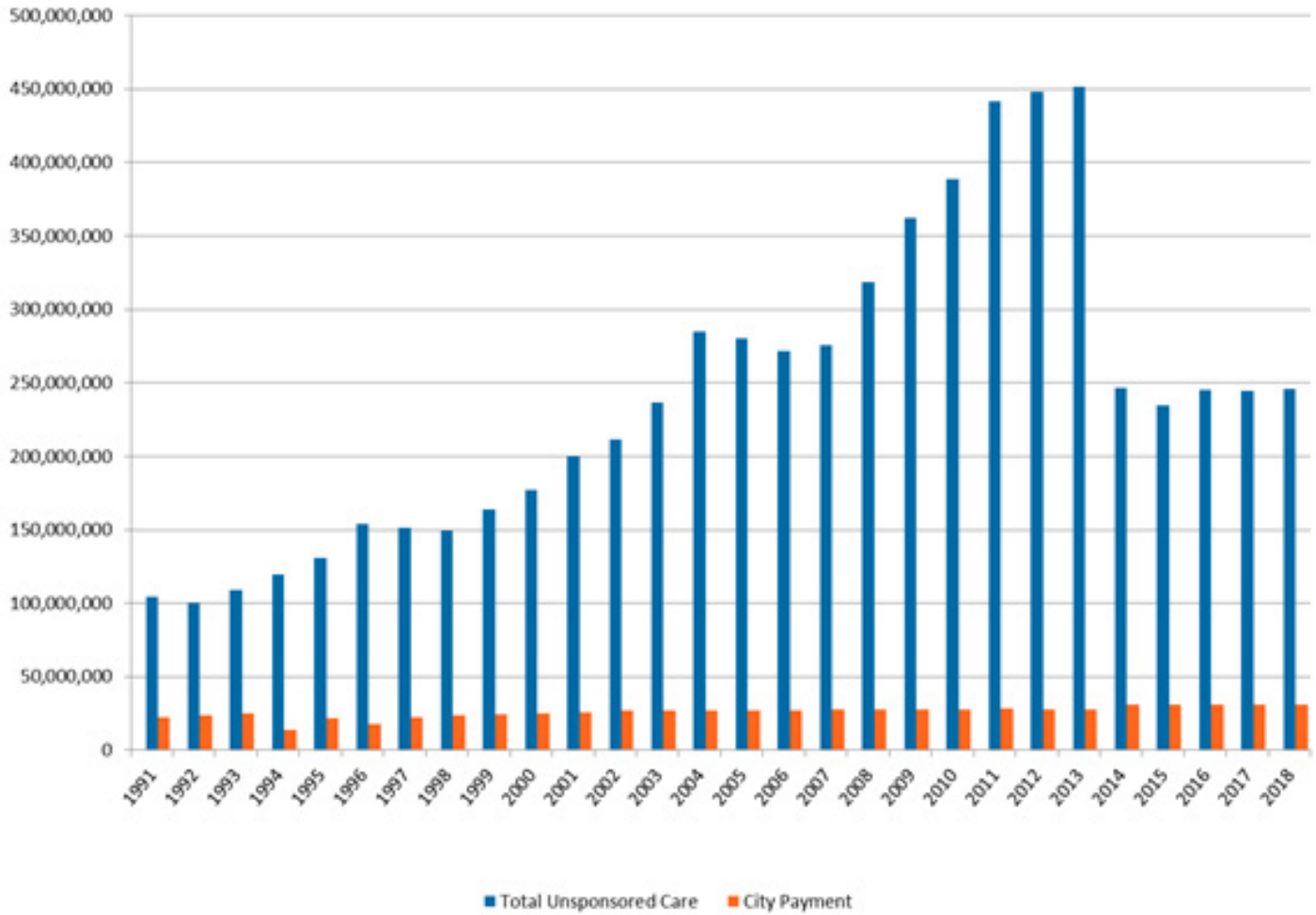
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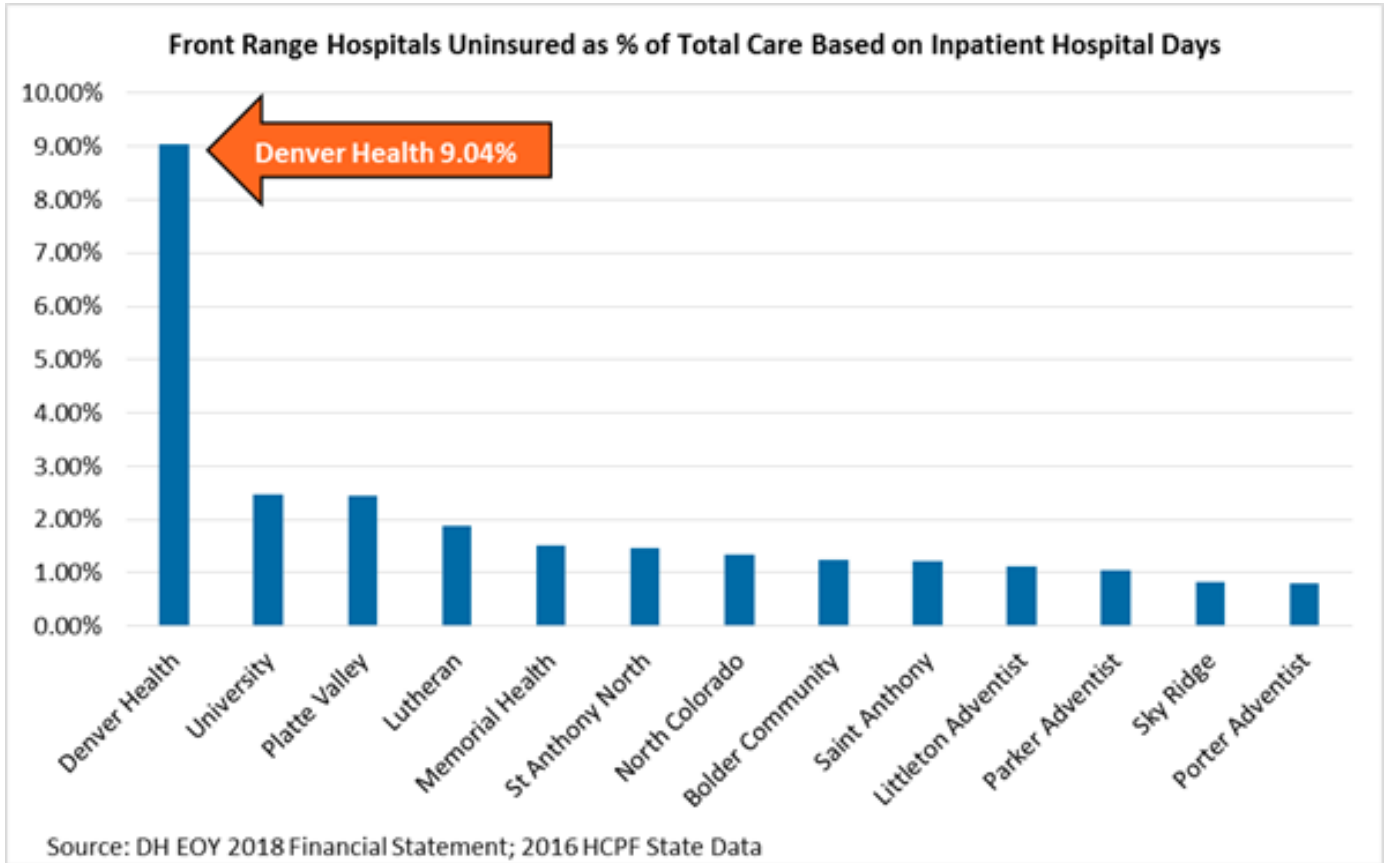


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Total Uncompensated Care Vs City Payment Trend





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 end 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 2018 financial statements are presented in Section 03 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 in Section 07 of this report.

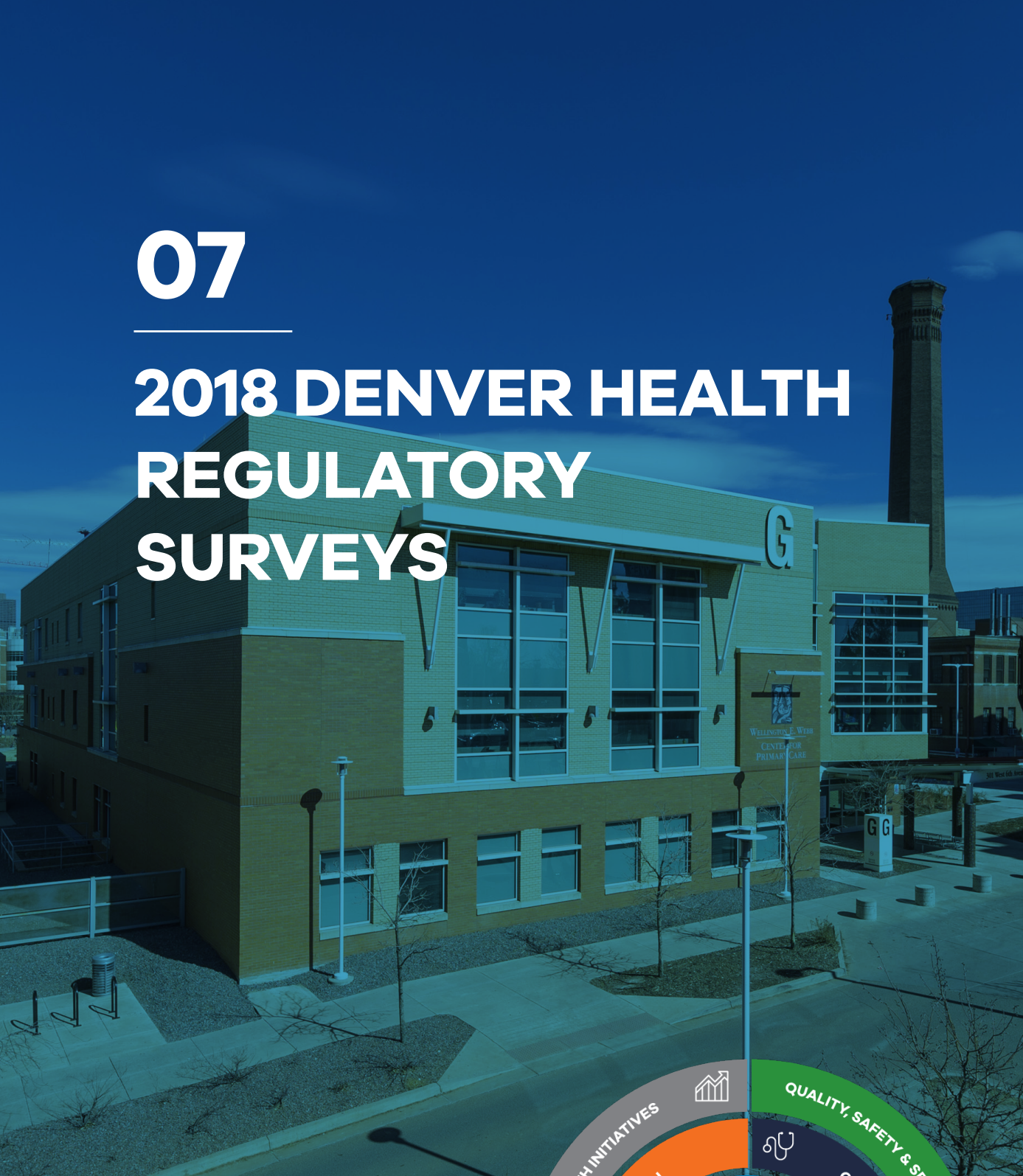
C. A report of the disposition of all matters regarding the Authority that have been referred to the Liaison by the Mayor or any member of City Council during such Fiscal Year.

RESPONSE:

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

07

2018 DENVER HEALTH REGULATORY SURVEYS



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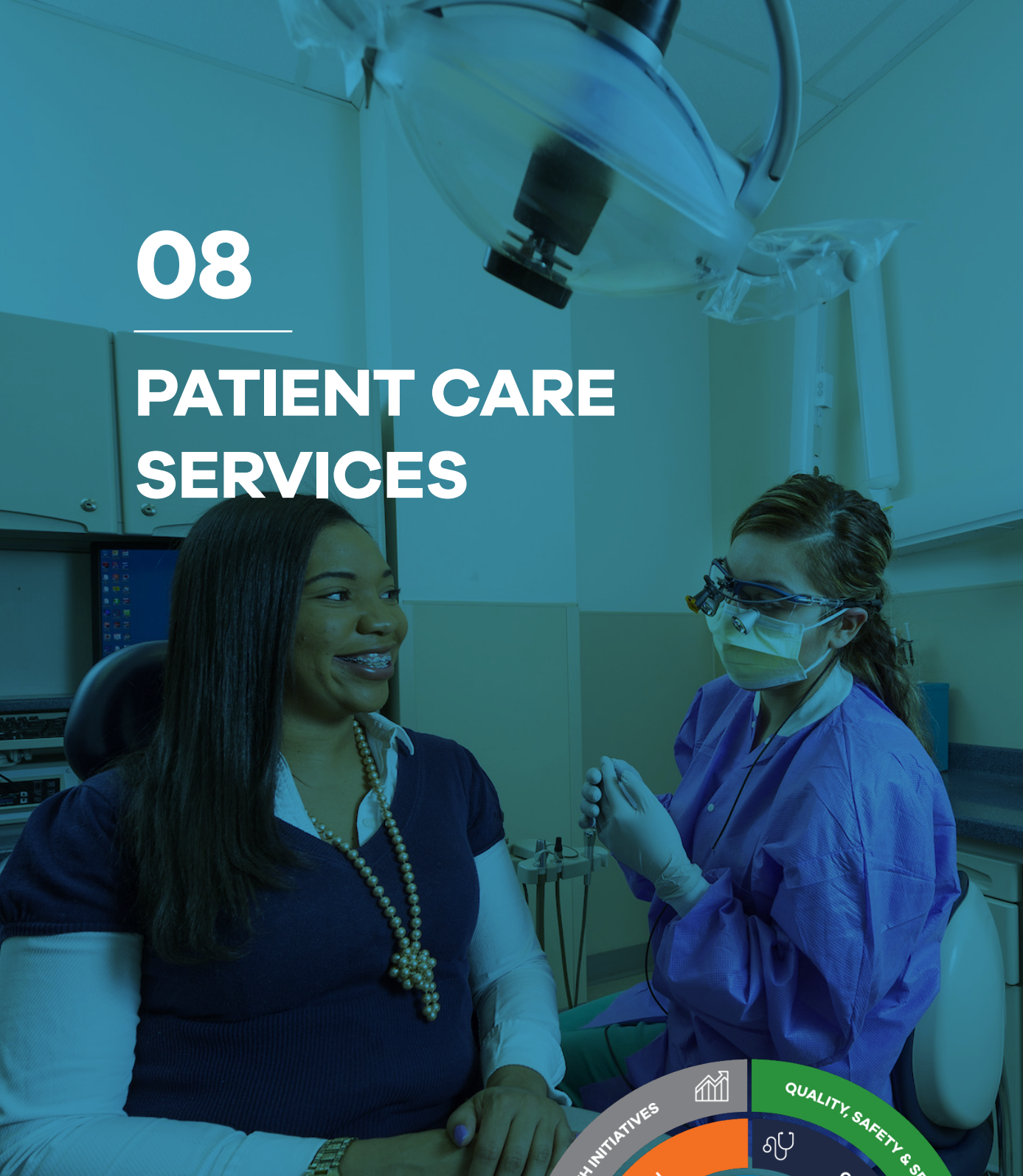
Organization	DH Program / Site or Issue Surveyed	Survey/ Inspection Date	Term
The Joint Commission	Ambulatory Care Lab	12/11/2018	2 years
Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program	Denver Health Bariatric Surgery Program	6/26/2018	3 years
Colorado Department of Public Health and Environment (CDPHE) /Mammography Quality Standards Act (MQSA)	Denver Health Mammography and Mobile Mammography	8/31/2018	1-2 years
Colorado State Board of Pharmacy	Denver Health Acute Care RX	6/27/2018	1-2 years
Colorado State Board of Pharmacy	Denver Health Central Fill	12/4/2018	1-2 years
Colorado State Board of Pharmacy	Eastside Pharmacy	12/26/2018	1-2 years
Colorado State Board of Pharmacy	ID Pharmacy	9/12/2018	1-2 years
Colorado State Board of Pharmacy	La Casa	8/14/2018	1-2 years
Colorado State Board of Pharmacy	Lowry Pharmacy	8/8/2018	1-2 years
Colorado State Board of Pharmacy	Montbello Pharmacy	4/23/2018	1-2 years
Colorado State Board of Pharmacy	Peña Pharmacy	12/11/2018	1-2 years
Colorado State Board of Pharmacy	Primary Care Pharmacy	9/12/2018	1-2 years
Colorado State Board of Pharmacy	Florence <u>Crittenton</u> HS	2/21/2018	1-2 years
Colorado State Board of Pharmacy	Rachel Noel Middle School	5/11/2018	1-2 years
Colorado State Board of Pharmacy	JFK HS	8/27/2018	1-2 years

Organization	DH Program / Site or Issue Surveyed	Survey/ Inspection Date	Term
Colorado State Board of Pharmacy	Montbello HS	9/21/2018	1-2 years
Colorado State Board of Pharmacy	Thomas Jefferson HS	9/21/2018	1-2 years
Colorado State Board of Pharmacy	Westside Pharmacy	12/11/2018	1-2 years
Denver Fire Department	190 W 6th Ave - Rita Bass	5/21/2018	1 year
Denver Fire Department	301 W 6th Ave - Pavilion G	7/9/2018	1 year
Denver Fire Department	530 N Acoma St	5/22/2018	1 year
Denver Fire Department	550 N Acoma St	5/22/2018	1 year
Denver Fire Department	675 N Acoma St - Acoma Parking Garage	6/8/2018	1 year
Denver Fire Department	601 Broadway - Administration	7/13/2018	1 year
Denver Fire Department	601 N Acoma - Bannock Parking Garage	5/23/2018	1 year
Denver Fire Department	605 N Bannock St - Pavilion H	7/13/2018	1 year
Denver Fire Department	645 N Bannock St - Engineering	7/7/2018	1 year
Denver Fire Department	655 N Bannock St - Pavilion I	7/13/2018	1 year
Denver Fire Department	660 N Delaware St - Delaware Parking Garage	6/8/2018	1 year
Denver Fire Department	667 N Bannock St - Pavilion K	7/13/2018	1 year
Denver Fire Department	677 N Delaware St - Boiler House	7/13/2018	1 year
Denver Fire Department	700 N Delaware St - Davis Pavilion - U05	7/10/2018	1 year
Denver Fire Department	700 N Delaware St - Davis Pavilion - U06	7/10/2018	1 year
Denver Fire Department	710 N Delaware St - Bond Trailer	7/10/2018	1 year
Denver Fire Department	723 N Delaware St - Pavilion M	7/10/2018	1 year
Denver Fire Department	777 N Bannock St - Pavilion A-U01	7/13/2018	1 year
Denver Fire Department	777 N Delaware St - Receiving Dock	7/10/2018	1 year
Denver Fire Department	780 N Delaware St - Pavilion B-U02	7/9/1948	1 year
Denver Fire Department	790 Delaware St - Pavilion C - U10	7/9/2018	1 year
Office of Behavioral Health (Controlled Substance License)	OBHS 667 Bannock Street (Methadone program)	4/24/2018	1 year

Organization	DH Program / Site or Issue Surveyed	Survey/ Inspection Date	Term
Signal Behavioral Health Network	Denver CARES 1155 Cherokee St	4/24/2018	1 year

08

PATIENT CARE SERVICES



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Appendix A-1 Patient Care Services
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 1.5(G) and 1.5(H) for the year just ended, as well as the two previous Fiscal Years, by May 1 following the reporting year.

RESPONSE:

We respectfully submit the 2018 Denver Health and Hospital Authority compliance with Operating Agreement performance report dated April 26, 2019 for consideration.

G. Performance Criteria Table – Clinical (I-W numbering follows the Authority’s annual report).

RESPONSE:

See following table. NR (Not Reported) indicates new or changed criteria in the 2018 Operating Agreement.

Number	Contract Criterion	2015	2016	2017	2018	GOAL
1.5I	Childhood Immunization Rate	85.0%	89.0%	87.0%	83.0%	At least 80% of patients who have their third birthday in the measurement year, initiated care prior to their second birthday, and are active 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	78.0%	80.0%	74.0%	67% ¹	At least 70% of women will begin prenatal care within the 1st Trimester.
	¹ Prenatal Care: efforts are focused on improving the methodology for capturing metric compliance including stronger alignment to HEDIS measures and an adjustment in timeframe from <15 weeks to < 13 weeks starting in 2018. Additionally teams are focused on the intake process and making sure that the visit is documented correctly. A Pilot has been done using nurse outreach to improve the intake show rate which produced a 36% increase in show rate. Plans are underway to disseminate the process throughout the rest of the clinics.					
1.5L	Patient Satisfaction					

Number	Contract Criterion	2015	2016	2017	2018	GOAL
	Community Health Service	74.1%	78.0%	78.6%	80.0%	77% of patients seen in primary care clinics will respond with a 9 or a 10 ("top box") for "Overall provider rating."
	Denver Health Medical Center	74.2%	75.5%	77.6%	79.3%	73% of hospitalized patients will respond with a 9 or a 10 ("top box") for overall patient satisfaction.
1.5M	Breast Cancer Screening	60.0%	52.0%	59.0%	60% ²	65% of active female patients age 51 to 74 years will have a mammogram in the past 2 years.
	² Breast Cancer Screening: efforts to improve screening are focused using Best Practice Alerts for to provide the clinical team prompts for patients seen in clinic to schedule their mammogram. Additional plans are to place to leverage MyChart to send reminders directly to patients to schedule a mammogram. We are also working outreach efforts for a subpopulation of patients to determine the resources needed and the success rates of this intervention.					
1.5N	Cervical Cancer Screening	79.0%	71.0%	71.0%	73% ³	75% of active female patients age 24-64, will have had a PAP test in the past three years or a PAP+HPV in the past 5 years (age 30-64).
	³ Cervical Cancer Screening: some clinics are using PAP emphasis clinics which are scheduled at the same time as the mobile mammogram, where patients who are due for PAP can be scheduled with a female provider. We are utilizing a report to outreach to patients with an upcoming appointment who are due for Pap to encourage a PAP at the upcoming appointment. Providers may also perform an "Opportunistic PAPs" at point of care.					
1.5O	Adolescent Vaccinations					
	TDAP and MCV4	89.0%	88.0%	87.0%	88.0% ⁴	85% of active adolescent patients, age 13-17, will have both Tdap and MCV4 vaccinations.
	⁴ Adolescent Vaccinations: effective 1/2018, adolescent vaccinations reported as single combined vaccination that includes TDAP, MCV4 and HPV.					
	HPV	NR	NR	NR	88.0%	85% of active adolescent patients, age 13-17, will have received at least 1 HPV vaccine.

Number	Contract Criterion	2015	2016	2017	2018	GOAL
1.5P	Diabetes Monitoring					A "Diabetic patient" for the diabetes measures is defined as a patient who has had at least 2 visits to a primary care clinic in the last year and at least one diagnosis code for diabetes in the last 18 months.
	Diabetes- percent of diabetics with HbA1c <9	72.0%	70.0%	71.0%	73.0%	70% of Diabetic patients will have an HbA1c < 9.
	Cardiovascular Disease Prevention	78.0%	78.0%	88.0%	92.0%	75% of Diabetic patients will be treated with statin medication.
1.5Q	Hypertension Control	68.0%	65.0%	65.0%	64% ⁵	70% of patients identified with hypertension will have their blood pressure under control as defined by current standards.
⁵ Hypertension Control: we are reviewing whether providers are intensifying medications when patients present with uncontrolled blood pressure, and related interventions to make sure patients with uncontrolled blood pressures come back for blood pressure check or clinic visit within 6 weeks, and processes alerting providers that blood pressure is out of control at the time of the visit (visit alert).						
1.5R	Cigarette Smoking Interventions	NR	NR	NR	53.0%	At least 50% of adult smokers with at least 2 visits to a Denver Health clinic, emergency department, or hospital stay will have received one of the following interventions in the prior 6 months: referral to the Quitline, referral to a cessation clinic, counseling on quitting, or a medication for tobacco cessation.
1.5S	Flu Vaccinations	50.0%	51.0%	51.0%	54% ⁶	60% of patients, 6 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 the influenza vaccine.

Number	Contract Criterion	2015	2016	2017	2018	GOAL
	<p>⁶Flu Vaccination: we are now offering the vaccines to siblings (as of January 2018) and parents (as of December 2018) at the child's visit, which we recently started. An area of improvement also includes integrating employee flu data into a DH system or Colorado Immunization Information System (CIIS) so that vaccinations can be documented. Other ongoing efforts include Best Practice Alerts so Medical Assistants checking in patients can receive a prompt for patients requiring a needed vaccine during their scheduled visit.</p>					
1.5T	Survival with Trauma					Survival rate for blunt and penetrating trauma among patients who are not dead on arrival (DOA) will be maintained within 5% of 2016 experience.
	Blunt with DOAs	96.7%	96.1%	97.1%	96.0%	Goal: >= 91.1%.
	Blunt without DOAs	97.7%	97.2%	97.8%	97.2%	Goal: >= 92.2%.
	Penetrating with DOAs	89.0%	89.6%	91.0%	89.3%	Goal: >= 84.6%.
	Penetrating without DOAs	97.3%	94.8%	96.6%	97.3%	Goal: >= 89.8%.
1.5U	Joint Commission Quality Measures					
	Early Elective Delivery between 37 – 39 weeks gestation	1.7%	1.5%	0.0%	0.0%	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					
	Adult Critical Care Central Line Associated Blood Stream Infection (CLABSI)					
	Medical Intensive Care Unit	Same	Same	Same	Same	Risk-adjusted rate that is the same or better than the national Medical ICU rate on the most recent Colorado Department of Public Health and Environment (CDPHE) report.
	Trauma Intensive Care Unit	Same	Worse	Same	Same	Risk-adjusted rate that is the same or better than the national Trauma ICU rate on the most recent CDPHE report.

H. Performance Criteria Table –Ambulatory Encounters (1.5 numbering follows the Authority's annual report).

RESPONSE:

See following table.

Contract	2015	2016	2017	2018
Denver Health Medical Choice Average Monthly Enrollment	68,361	75,767	84,984	82,963
Inpatient Admissions	25,532	24,919	24,552	24,621
Inpatient Days	118,287	125,225	127,093	130,615
Emergency Room Encounters	86,601	83,874	83,115	84,279
Urgent Care Visits	39,139	38,916	37,382	38,230
ER Cost/Visit	\$927	\$985	\$1,267	\$1,020
Top 25 DRGs for MI population	See Final DRG Table			
NICU days	5,357	5,008	5,667	5,513
CT Scans	21,663	38,874	51,780	56,333 ¹
¹ The 2018 CT Scan volume represents an 8% increase over last year, due to increases in Emergency Department (940 more than 2017) and hematology/oncology imaging studies (128 more than 2017).				
MRIs	8,881	9,828	11,205	11,567
Outpatient Surgeries	6,924	7,248	8,188	9,520
OP Pharmacy Cost/per patient	\$73	\$67	\$71	\$76 ²
² The 2018 outpatient pharmacy cost per visit of \$76.03 represents a 7% increase over last year. This increase is consistent with the 6% increase that occurred between 2016 and 2017).				
Ambulatory Care Encounters	2015	2016	2017	2018
Ambulatory Care Center	148,449	192,508	184,337	209,358
Webb Center for Primary Care	70,108	63,613	68,267	70,148
Gipson Eastside Family Health Center	45,385	41,690	44,521	48,957
Sandos Westside Family Health Center	69,135	62,039	65,850	66,147
Lowry Family Health Center	34,428	29,949	34,065	36,415
Montbello Health Center	22,589	22,709	27,722	27,805
Park Hill Family Health Center	17,786	17,972	18,927	19,118
La Casa-Quigg Newton Family Health Center	20,996	17,911	18,640	18,691
Westwood Family Health Center	19,323	16,546	16,446	17,148
Federico Pena Family Health Center	N/A	16,008	33,806	40,042
Other (includes Dental, School Based Clinics, Family Crisis Center)	79,023	70,172	97,866	95,175 ³
³ The 2018 Other outpatient visit volume in represents a 3% decrease over last year. This decrease is due to provider vacancy issues in School Based Health Centers.				

Contract	2015	2016	2017	2018
OP Behavioral Health Visits	166,963	210,788	224,574	227,403
TOTAL AMBULATORY ENCOUNTERS	694,185	761,905	835,021	876,407

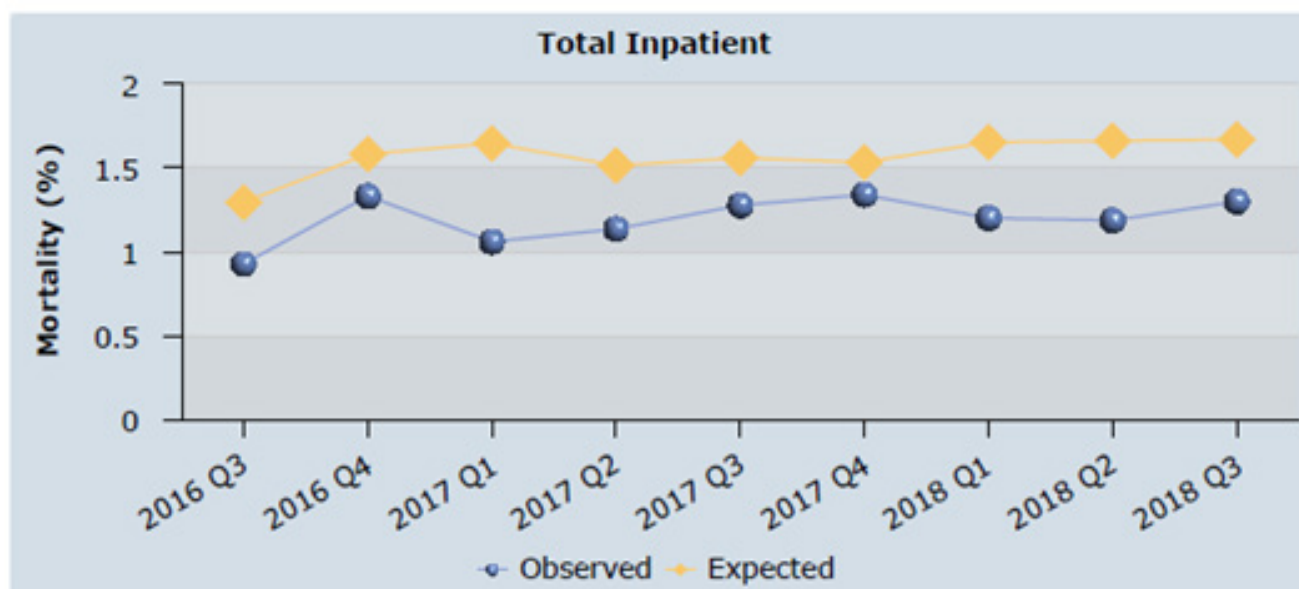
I. The Authority’s adjusted inpatient mortality will be in the top 20% of all academic health centers nationally as measured by Vizient, a collaboration of approximately 120 academic health centers.

RESPONSE:

Denver Health’s inpatient mortality has been consistently in the best quartile of Vizient hospitals for over a decade. See graph below which represents the observed to expected mortality rate across 160 academic health centers in the U.S.; Denver Health is in the top 15th percentile with significantly lower mortality than expected.

	Relative Performance	Denom (Cases)	Obs/Exp Ratio	Median	Rank
Current Quarter	⊙	5,775	0.77	0.93	42/160
Recent Year	⊙	22,915	0.77	0.95	25/160

	Current Quarter	Last Quarter	Recent Year
Cases (denom.)	5,775	5,478	22,915
Observed Deaths	75	65	288
Expected Deaths	96.29	90.95	372.93
Observed Mortality (%)	1.30	1.19	1.26
Expected Mortality (%)	1.67	1.66	1.63
Observed/Expected Ratio	0.77	0.71	0.77



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

RESPONSE:

The Authority is accredited by The Joint Commission for Ambulatory Clinics, Ambulatory Lab, Hospital, Hospital Lab and Methadone Program. In 2018, Denver Health Metabolic and Bariatric Surgery was Accredited for the first time on behalf of the American College of Surgeons (ACS) through June of 2021 and the Ambulatory Lab was reaccredited on behalf of The Joint Commission 2020.

K. The Authority will maintain national Residency Review Committee accreditation for its training programs.

RESPONSE:

All training programs maintained national Residency Committee accreditation.

L. The Authority will include in the May 1st annual report, a schedule of the number of patients treated during the reporting year by county, gender and ethnicity. The Authority 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.

Top 25 DRG's for Medically Indigent Population 2018

DRG#	DRG NAME	Total
640	MISCELLANEOUS DISORDERS OF NUTRITION, METABOLISM , FLUIDS AND ELECTROLYTES WITH MCC	132
885	PSYCHOSES	55
871	SEPTICEMIA OR SEVERE SEPSIS WITHOUT MV >96 HOURS WITH MCC	50
872	SEPTICEMIA OR SEVERE SEPSIS WITHOUT MV >96 HOURS WITHOUT MCC	50
897	ALCOHOL, DRUG ABUSE OR DEPENDENCE WITHOUT REHABILITATION THERAPY WITHOUT MCC	24
189	PULMONARY EDEMA AND RESPIRATORY FAILURE	22
743	UTERINE AND ADNEXA PROCEDURES FOR NON-MALIGNANCY WITHOUT CC/MCC	20
291	HEART FAILURE AND SHOCK WITH MCC	18
439	DISORDERS OF PANCREAS EXCEPT MALIGNANCY WITH CC	18
392	ESOPHAGITIS, GASTROENTERITIS AND MISCELLANEOUS DIGESTIVE DISORDERS WITHOUT MCC	16
812	RED BLOOD CELL DISORDERS WITHOUT MCC	16
854	INFECTIOUS AND PARASITIC DISEASES WITH O. R. PROCEDURE WITH CC	16
64	INTRACRANIAL HEMORRHAGE OR CEREBRAL INFARCTION WITH MCC	15
419	LAPAROSCOPIC CHOLECYSTECTOMY WITHOUT C.D.E. WITHOUT CC/MCC	14
964	OTHER MULTIPLE SIGNIFICANT TRAUMA WITH CC	13
247	PERCUTANEOUS CARDIOVASCULAR PROCEDURES WITH DRUG-ELUTING STENT WITHOUT MCC	12
775	VAGINAL DELIVERY WITHOUT COMPLICATING DIAGNOSES	12
896	ALCOHOL, DRUG ABUSE OR DEPENDENCE WITHOUT REHABILITATION THERAPY WITH MCC	12
101	SEIZURES WITHOUT MCC	11
305	HYPERTENSION WITHOUT MCC	11
641	MISCELLANEOUS DISORDERS OF NUTRITION, METABOLISM , FLUIDS AND ELECTROLYTES WITHOUT MCC	11
682	RENAL FAILURE WITH MCC	11
883	DISORDERS OF PERSONALITY AND IMPULSE CONTROL	11
340	APPENDECTOMY WITH COMPLICATED PRINCIPAL DIAGNOSIS WITHOUT CC/MCC	10
418	LAPAROSCOPIC CHOLECYSTECTOMY WITHOUT C.D.E. WITH CC	10
683	RENAL FAILURE WITH CC	10
684	RENAL FAILURE WITHOUT CC/MCC	10
774	VAGINAL DELIVERY WITH COMPLICATING DIAGNOSES	10

Unduplicated User and Total Visits Summary

Area	Patients	Visits
Colorado	216,200	928,014
Denver	149,110	678,481

2018 Unduplicated Users and Patient Visits by Colorado County

County	Users	Visits
Adams	20,573	79,117
Alamosa	22	89
Arapahoe	20,277	76,616
Archuleta	8	22
Baca	1	1
Bent	8	20
Boulder	1,589	4,408
Broomfield	132	447
Chaffee	35	83
Clear Creek	117	390
Conejos	10	24
Costilla	11	34
Crowley	4	11
Custer	4	17
Delta	24	40
Denver	149,110	678,498
Douglas	2,197	7,503
Eagle	153	358
El Paso	1,077	2,491
Elbert	80	255
Fremont	38	82
Garfield	69	157
Gilpin	58	174
Grand	820	2,214
Gunnison	17	31
Huerfano	12	32
Jackson	6	14
Jefferson	17,181	68,041
Kit Carson	15	59
La Plata	31	42
Lake	26	63
Larimer	504	868
Las Animas	27	99
Lincoln	20	45
Logan	38	162
Mesa	87	169
Moffat	15	54
Montezuma	10	25
Montrose	23	51
Morgan	68	274
Otero	27	65
Ouray	2	2

County	Users	Visits
Park	133	461
Phillips	12	38
Pitkin	22	45
Prowers	16	58
Pueblo	280	943
Río Blanco	4	4
Rio Grande	16	65
Routt	45	97
Saguache	8	28
San Juan	2	2
San Miguel	4	5
Sedgwick	5	27
Summit	121	252
Teller	30	79
Washington	12	45
Weld	947	2,690
Yuma	8	12
Cheyenne	3	6
Kiowa	4	6
Mineral	1	3
Dolores	1	1

Total Patient Visits	928,014
Total Unduplicated Users	216,200

2018 Unduplicated Users and Patient Visits by Denver County Zip Code

Zip Code	Users	Visits
80201	165	786
80202	1,925	7,645
80203	4,317	17,845
80204	19,366	90,830
80205	9,291	43,971
80206	2,210	9,437
80207	4,260	21,767
80208	10	18
80209	1,875	7,047
80210	2,158	8,619
80211	6,150	29,898
80212	2,003	9,776
80216	5,123	23,968
80217	24	83
80218	3,070	12,871
80219	29,240	141,660
80220	5,023	22,524
80222	2,803	13,062
80223	7,435	36,198
80224	2,570	11,644
80227	3,121	13,693
80230	996	4,366
80231	4,380	17,797
80235	601	2,676
80236	3,531	15,890
80237	1,576	6,935
80238	975	4,132
80239	14,469	59,018
80243	4	7
80244	3	20
80246	1,450	5,429
80247	3,473	15,407
80248	5	9
80249	5,454	23,202
80250	39	227
80251	1	1
80261	3	3
80263	1	2
80264	3	3
80265	1	1
80266	1	4
80290	2	5
80294	3	5

Total Visits	678,481
Total Unduplicated Users	149,110

2018 Unduplicated Users and Visits by Gender and Race*

Gender	Race	Users	Total Visits
F	African-American	15,578	79,175
F	Amer./Alaskan Native	604	3,677
F	Asian	4,494	19,253
F	Hispanic	55,824	281,273
F	Native-Hawaiian	69	376
F	Other	2,350	7,916
F	Oth-Pacific-Islander	138	509
F	Unknown	1,663	3,243
F	White-Caucasian	31,181	138,402
F	NULL	174	194
Female Total		112,075	534,018
M	African-American	14,607	57,381
M	Amer./Alaskan Native	549	2,959
M	Asian	3,278	12,455
M	Hispanic	45,723	176,793
M	Native-Hawaiian	50	158
M	Other	2,266	6,388
M	Oth-Pacific-Islander	114	346
M	Unknown	2,146	4,048
M	White-Caucasian	35,068	133,098
M	NULL	306	303
Male Total		104,107	393,929
Unknown	Hispanic	2	2
Unknown	Other	2	2
Unknown	Unknown	1	1
Unknown	White-Caucasian	12	59
Unknown	NULL	1	3
Unknown Total		18	67
Grand Total		216,200	928,014

* Table uses Derived Race as identified by Epic

2018 HOMELESS Unduplicated Users and Visits by Gender and Race*

Gender	Race	Users	Total Visits**	Charges
F	African-American	372	1,123	\$ 5,362,364
F	Amer/Alaskan Native	54	162	\$ 548,227
F	Asian	20	31	\$ 115,536
F	Hispanic	437	1,245	\$ 4,921,065
F	Native-Hawaiian	3	15	\$ 36,139
F	Other	36	66	\$ 536,679
F	Oth-Pacific-Islander	1	3	\$ 2,650
F	Unknown	51	61	\$ 175,559
F	White-Caucasian	1,162	3,524	\$ 19,332,004
F	NULL	9	9	\$ 31,251
Female Total		2,145	6,239	\$ 31,061,474
M	African-American	1,246	5,209	\$ 19,873,018
M	Amer/Alaskan Native	102	892	\$ 2,427,684
M	Asian	35	181	\$ 649,242
M	Hispanic	1,272	5,260	\$ 24,011,358
M	Native-Hawaiian	4	39	\$ 304,466
M	Other	106	329	\$ 1,740,467
M	Oth-Pacific-Islander	2	2	\$ 6,891
M	Unknown	187	300	\$ 1,607,979
M	White-Caucasian	3,445	14,573	\$ 68,040,093
M	NULL	30	30	\$ 55,614
Male Total		6,429	26,815	\$ 118,716,812

Grand Total		8,574	33,054	\$ 149,778,286
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* Table uses Derived Race as identified by Epic

**Visits represent current process in Epic for tracking homeless population

09

EMERGENCY MEDICAL SERVICES



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Appendix A-2 Emergency Medical Services

1.5 Performance Criteria

A. Each component of the Emergency Medical Response System (EMRS), including the Authority and Department of Safety, and certain stakeholders, including the Mayor's Office, City Council, and the Auditor's Office, will designate representation on the EMRS Advisory Committee, which will meet regularly to monitor system performance, identify and recommend strategies for innovation and improvement, and provide the necessary collaboration and accountability to ensure a continued high delivery of EMS responses and services. The performance metrics (including any data parameters or exclusions), advisory committee composition, and strategic framework will be documented in a mutually agreed-upon Memorandum of Understanding. The parties have recommended improvements to the system, and are committed to continuing improvements to the system that have improved and will continue to improve overall system.

RESPONSE:

No response necessary.

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

RESPONSE:

The utilization/hour rate system wide was 0.4493 for the year 2018.

C. The City and the Authority will strive to meet the performance goals for each system component as described in the 2016 NFPA Standards 1710 and 1221 and listed in Table 2, below. Each component of the EMRS, including Denver 911, DFD, 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 sirens) response times, listed in minutes and seconds, as set forth in Table 1, below. Additional system performance metrics regarding the EMRS will be identified, monitored, and reported by the EMRS Advisory Committee, as described above.

TABLE 2: NFPA Goals by System Component

	Dispatch – 95% (Call Answered to Unit Assigned)	Response – 90% (Unit Assigned to Unit Arrived)	TOTAL – 90% (Call Answered to Unit Arrived)
Call Answering and Processing	1:30	N/A	N/A
BLS Denver Fire	N/A	5:00	6:30
ALS Denver Health	N/A	9:00	10:30

1. 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.

RESPONSE:

The CAD administrator reported the following metrics for response time:

Dispatch – 95% (Call Answered to Unit Assigned)			Response – 90% (Unit Assigned to Unit Arrived)			TOTAL – 90% (Call Answered to Unit Arrived)		
95% Goal	95% Actual	Compliance	90% Goal	90% Actual	Compliance	90% Goal	90% Actual	Compliance
1:30	4:14	47.5%	9:00	9:00	90.00%	10:30	12:48	76.9% ¹

¹Total response time as measured by the sum of Dispatch time and Response time is a shared response metric between the City 911 Communications Center and the Authority’s Paramedics division. In 2018, the Paramedics performed within the expected compliance rate for their accountable portion of the metric and will continue to participate in bi-monthly action planning to continuously improve performance.

2. Responsibility of the EMRS Data Analyst:

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 EMRS Data Analyst will analyze performance data to identify data that are verifiably inaccurate, identified by annotation within the system. The EMRS Data Analyst 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 En route
- Eliminating all durations in excess of 30 minutes for most data elements
- Eliminating all durations in excess of 60 minutes from answer to arrival.

c. Reporting Exclusions - The EMRS Data Analyst will exclude the following calls from the dataset for the purpose of response time compliance reporting. Excluded data may be evaluated for the purposes of general analysis.

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. At DEN this may also include calls outside of the defined response area for paramedics assigned to DEN.

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's 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.

RESPONSE:

No response necessary.

3. Clinical 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.

4. 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. 114 of these heart attack patients were transported in 2018. 98 of these patients had Aspirin indicated*, and 100% of those patients were given Aspirin.

*The 16 patients that did not have Aspirin indicated either had a specific allergy to aspirin, had Aspirin administered prior to their arrival, or were unable to chew the tablets.

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 114 heart attack patients was 21:38 minutes in 2018. 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:

804 emergency (lights and siren) transports of trauma patients occurred in 2018.

The average scene time for these patients was 9:03 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 804 emergency trauma patients, 804 (100%) were transported to an American College of Surgeons designated level I or II trauma center.

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

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

RESPONSE:

In 2018 there were 60 survivors that were discharged alive and well. The Denver Health Paramedic Division had an Utstein Survival rate of 42.3%. The national average for 2018 was 31.8% per the Cardiac Arrest Registry to Enhance Survival (CARES).

ADDITIONAL COMMENTS: The Denver Health Paramedic Division uses a database that includes cardiac arrest survival data from more than 40 cities around the nation. These numbers are not yet finalized and confirmed by CARES, and will be by April 30th, 2019.

5. 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 9 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 first unit assigned to first unit arrived. According to the EMRS data analyst, the Authority's response time compliance under nine minutes was 90.00%. Please see A2 1.5 C-1 above for detail.

6. Reporting - Performance reports will be submitted monthly to the EMRS Advisory Committee, not later than fifteen (15) days after the end of the month. A system performance report will be made at least annually by the EMRS Advisory Committee to the leadership of the City and the Authority. The parties recognize that the tiered emergency response system at times may not meet one or more goals of the NFPA Standards. The parties understand and agree that coordination and cooperation will be needed to share data and provide system performance reporting.

a. 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.

b. 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.

c. 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 911 Communications Center and the Authority has attended monthly meetings.

10

PUBLIC HEALTH SERVICES



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Appendix A-3 Public Health Services
1.4 Performance Criteria

A. 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:

RESPONSE:

Public Health Services	2015	2016	2017	2018
Infections Disease Clinic - Patient Encounters	16,875	18,092	21,757	23,435
Immunization Clinic- Total Immunization Visits ¹	10,908	9,729	9,582	8,856
Immunization Clinic- Total Vaccinations Provided	21,850	19,129	18,536	17,344
STD Clinic - Visits (includes Family Planning)	15,515	16,086	16,762	16,070
TB Clinic - Patient Encounters	21,754	18,893	19,033	17,329
TB Clinic - New TB Cases	57	46	58	47
Vital Records - Birth and Death Certificates Registered	66,455	67,135	60,543	60,864

¹ Starting in 2018, refugee patients were able to receive vaccinations at other Denver Health clinic locations such as the Denver Health Lowry Clinic (1,298 in 2018) instead of coming to the Immunization Clinic on the main campus. In addition, we expanded the availability of vaccines given to patients in the STD and TB clinics without being referred to the Immunization Clinic. In 2018, the EPI and Preparedness, STD and TB programs administered a total of 717 immunizations in addition to 1,691 vaccines provided in other community locations. These projects were great for patient satisfaction but did lead to a decrease in the number of actual Immunization Clinic visits.

B. The Authority will provide the following performance statistics which includes the goals and metrics for public health functions of the Authority’s Department for Public Health (DPH). The frequency of reporting is provided in the table. Metrics reported monthly will accompany the invoice.

RESPONSE:

Monthly, quarterly and annual statistics provided with monthly invoices. See tables below for year-end 2018 reporting results.

Operating Agreement Monthly Measurements by Program 2018			
Program	Objective	Metric	YE Total
Immunization and Travel Clinic Vaccine-preventable infections	Ready access for residents and visitors of Denver to vaccines in clinical and community settings	Number of vaccines provided in the Immunization Clinic	15,653
		Total number of clinic visits (including travel)	8,856
		Number of vaccines provided in community settings (schools, Shots for Tots, DPS, and other community venues)	1,691
	Provide travel-related evaluation and immunizations	Number of travel consults (Travel visits + Consult Only)	3,514
STD and Family Planning Clinic Sexually-transmitted diseases (other than HIV and viral hepatitis)	Provide access to Denver residents and visitors to clinical sexual health services in clinical and community settings	Number of STD Clinic visits (annual goal = 12,500 visits)	16,070
		Number of Qualifying Family Planning visits (annual goal = 7,000 visits cumulative)	9,035
		Number of community partner STD screening visits (annual goal = 3,000 visits)	4,688
		Percent of STD Clinic gonorrhea and chlamydia cases treated within 7 days of test result (monthly goal = 80%)	81.5%
	Provide HIV testing in clinical and community settings	Number of HIV tests in the STD Clinic (annual goal = 6,000)	8,914
		Number of HIV outreach tests (annual goal = 1,500)	1,538
TB Clinic	Provide evaluation and treatment of persons with active tuberculosis (TB) in Denver	Number of active persons seen	430
	Provide TB screening and evaluation services	Number of TB Clinic visits	17,329
		Number of visits provided in community settings or outreach	8,894
Vital Records	Convenient access to birth and death certificates for Denver residents and visitors	Number of birth certificates issued	32,540
		Number of death certificates issued	28,324
Public Health Informatics	Identify individuals living with HIV for disease investigation, monitoring, and numerous reporting and analytical purposes.	Update a monthly registry of individuals living with HIV in Denver County. Registry updated (Y/N)	Y
	Provide Sexually Transmitted Infection (STI) monitoring statistics	Number of Chlamydia cases for Denver County	7,260
		Number of Gonorrhea cases for Denver County	2,571
		Number of Early Syphilis cases for Denver County	266

Operating Agreement Quarterly Measurements by Program 2018

Program	Objective	Metric	Q1	Q2	Q3	Q4
ID/AIDS Clinic-HIV	Provide treatment for persons with HIV disease in Denver	Average time to the third next appointment for the 6 primary providers in ID Clinic. (Goal= 14 days)	16.83	18	20.5	24
		The ID Clinic missed the average wait time to next appointment metric because of key staff absences (FMLA) that increased wait times. The clinic continue to maintain one 'full' schedule (12 visits) every day for same-day, urgent, and walk-in visits for acute or chronic issues which assures that access is available. These same-day slots are excluded from this metric calculation.				
		Percent of ID Clinic patients with a viral load < 200 copies (goal = 90%)	88.5%	88.30%	88.90%	90.00%
	Access to prophylaxis for HIV	Number of persons started on Pre-Exposure Prophylaxis (PrEP) (annual goal = 160)	28	23	11	11
		The ID Clinic missed the PrEP goals because PrEP care was rolled-out to numerous DHHA Primary care locations to provide patients with shorter wait times and more convenient access via community health centers closer to home. The STD clinic has also started providing longitudinal PrEP care (not just starting PrEP, but seeing them in follow-up) which has also greatly affected numbers in the ID Clinic. The decrease in PrEP care has not adversely impacted the ID Clinic because the numbers of patients living with HIV and those we are seeing for treatment of Hepatitis C are continuing to grow at a steady pace.				
	Work with stakeholders across the City and County on AIDS elimination	90% of those with HIV have been diagnosed	90%	90%	90%	90%
		90% of those diagnosed are in HIV care	82.0%	76.7%	79.6%	77.70%
		90% of those in care have an undetectable viral load	89.0%	90.00%	91%	91.50%
		This is a community goal that is part of the UNAIDS/IAPAC worldwide 90-90-90 program. Denver has signed this Fast Track Cities Initiative (FTCI) and is part of the 90-90-90 campaign. This metric is reflective of the entire Denver Metro area and will not be attainable for many years to come, but was included because it is an important part of the 90-90-90 initiative. In 2018, DPH under the leadership of Dr. Rowan organized a metro-wide task force to support the FTCI 90-90-90 campaign. The coalition consists of most of the major HIV care providers in the metro area as well as representation from numerous community based organizations, the state health department (CDPHE) and the City of Denver Office of HIV Resources. DH participates in quarterly meetings and subcommittee work to advance the achievement of the 90-90-90 goal.				
	Provide evaluation and treatment of Hepatitis C for persons in Denver	Number of persons who complete treatment for Hepatitis C in the ID Clinic (annual goal = 100)	137	108	138	154
Immunization and Travel Clinic Vaccine-preventable infections	Provide technical assistance to child daycare centers on improving vaccine coverage	Number of site visits to child daycare centers	6	20	18	17
		Number of trainings	8	2	2	2
STD and Family Planning Clinic Sexually-transmitted diseases (other than HIV and viral hepatitis)	Provide testing for Hepatitis C among persons at increased risk in the STD Clinic	Number of persons tested for Hepatitis C (annual goal = 2000 persons)	1222	684	587	640
	Access to prophylaxis for HIV	Number of persons receiving non-occupational post-exposure prophylaxis (PEP) given	28	37	51	38

Operating Agreement Quarterly Measurements by Program 2018						
Program	Objective	Metric	Q1	Q2	Q3	Q4
Disease Control and Outbreak Investigation	Develop and provide high quality monitoring and outbreak data to stakeholders	Number of outbreaks in a calendar year that required NORS or outbreak summary report	4 out of 25 outbreaks in first quarter required NORS or outbreak summary form	3 out of 5 outbreaks in the second quarter required NORS or summary report	1 out of 3 outbreaks in the third quarter required NORS or summary report	5 out of 13 outbreaks in the fourth quarter required NORS or summary report
		Percentage of case interviews completed within 7 days of initial report	91%	84.10%	82.30%	90%
		Number of animal bite reports requiring follow-up with victims	80	130	141	97
		Number of animal bite victims requiring post-exposure rabies prophylaxis	5	14	35	17
Public Health Informatics	Provide Geographic Information Systems (GIS) expertise to produce maps and geospatial analysis at the request of the City.	Number of GIS maps created for Public Health issues	4	75	37	25

Operating Agreement Annual Measurements by Program 2018			
Program	Objective	Metric	2018
Immunization and Travel Clinic Vaccine-preventable infections	Assess risks for vaccine-preventable infections in Denver	Review of opportunities to decrease vaccine-preventable infections in Denver. Review completed (Y/N)	Y
STD and Family Planning Clinic Sexually-transmitted diseases (other than HIV and viral hepatitis)	Plan to decrease the incidence of gonorrhea in Denver	Plan completed (Y/N)	Y
TB Clinic	Provide evaluation and treatment of persons with active tuberculosis (TB) in Denver	Number of new TB cases	47
		Evaluation of a person with suspected active TB (goal = 100%) within one business day	N/A
		Completion of treatment within 12 months (goal > 95%)	46/48 (96%) eligible (1 year lag on metric)
	Provide evaluation and treatment of persons with latent TB in Denver	Number of homeless persons tested for latent TB	1609
Completion of treatment of latent TB among close contacts to active cases of smear-positive pulmonary TB - 1 yr. lag (goal > 80%)		18/24 (75%)	

Operating Agreement Annual Measurements by Program 2018

Program	Objective	Metric	2018
	Work with primary care settings in Denver caring for persons with increased risk for TB	Screen and treat latent TB among high-risk persons (goal = 2 additional clinics)	Y: Caritas Southwest Peña Clinic Lowry Clinic
Epidemiology and Monitoring including Disease Control and Outbreak Investigation Epidemiology and Monitoring	Produce and contribute to health assessment reports annually (e.g., population or targeted health assessment, council district report, health impact assessments)	Number of assessment reports produced in calendar year	1 (Youth Health Assessment)
	Provide expert consultation on data sources, analysis, and methods by curating monitored data to track and report on emergent public health threats.	Report updated of available data sources (Y/N)	Y
	Develop and maintain efficient outbreak response data tools that integrate clinical data, disease reports, and outbreak-related data collection	Number of Denver outbreaks where response metrics were collected and summarized using data tools	43
	Curate monitored data to annually produce information that tracks progress on community health improvement plan	Data for the CHIP annual report produced (Y/N)	Y
Disease Control and Outbreak Investigation	Develop and provide high quality monitoring and outbreak data to stakeholders	Number of outbreaks in a calendar year that required NORS or outbreak summary report	13
		Number of email and phone reports of suspected illness/month in a calendar year	248
Public Health Administration	Serve as Medical Officer for DDPHE	Medical Officer or designee (a physician with public health expertise) available 24/7 (Y/N)	Y
	Support maintenance of public health accreditation	Annual report completion date (goal = March 31, 2018)	15-Feb-18
	Joint strategic planning with DDPHE	Annual joint planning session completed (Y/N)	Y
		Joint performance management system developed (Y/N)	Y
Public Health Informatics	Provide data extraction and reporting expertise to support periodic community health assessments for the City and County of Denver.	Extract data from numerous sources and compile into various charts and graphs. How will this be measured?	Y
		Incorporate US Census data to produce population demographic information. Number of reports produced using census tract data.	3
	Provide expertise in extracting, compiling, and analyzing birth and death data for the City and County of Denver.	Create periodic reports for birth and mortality reporting for the City and County of Denver. These data are frequently incorporated into health assessments and other analytical reports. Number of reports produced using birth and death data.	8

Operating Agreement Annual Measurements by Program 2018

Program	Objective	Metric	2018
Public Health Preparedness and Response	Provide staffing as public health technical specialists and ICS positions in the combined DDPHE/DPH combined Department Operations Center (DOC).	Number of exercises/trainings conducted per calendar year	8
		Number of actual DOC activations responded to per calendar year	2
	Ensure DPH participation in ICS training and exercises/drills	Percentage of staff that complete ICS training in a calendar year	97.92%
		Number of staff that actively participate in exercises/drills per calendar year	6
	Serve as the coordinator for development and distribution of Denver Health Alert Notifications (D-HANs)	Number of D-HANs distributed per calendar year	21
	Serve as the manager of special projects- Epidemiology Surveillance and Reporting Tool (ESRT), National Syndromic Surveillance Program (NSSP)	Number of trainings for NSSP database provided to DPH and other LPHA disease investigation staff and response partners per calendar year	2
	Serve as the coordinator for Behavioral Health activities for emergency preparedness and response.	Number of activities/events conducted related to behavioral health response/calendar year	3
	Serve as the Lead for Cities Readiness Initiative activities	Number of new closed POD agreements obtained/calendar year	1
		Number of trainings related to closed POD development and management conducted/calendar year	2
		Number of dispensing drills conducted/calendar year	1
	Serve as the co-chair of the local healthcare coalition	Number of healthcare coalition meetings led per calendar year	11

C. The Denver Public Health and Environment (DDPHE) and DPH collaborate to produce the deliverables associated with the Community Health Improvement Plan (CHIP) and Community Health Assessment (CHA). The Be Healthy Denver operations manual will be maintained and includes more specificity on the annual work plan, associated deliverables, and roles and responsibilities. 2018 Be Healthy Denver activities include completion and dissemination of the Youth Health Assessment, community engagement on the findings of the Youth Health Assessment, and 2019-2023 CHIP planning and prioritization. All work products shall be approved by the department directors. Final approval of all CHIP and CHA work product rests with DDPHE per Section 1.1(b), above.

RESPONSE:

In partnership with DDPHE, DPH published the Youth Health Assessment in January of 2018 and shared it with more than 100 partners and community stakeholders at a launch event on January 23rd. After the launch, the findings of the assessment were shared with community partners and members at 12 different events between February and September 2018. Of the 500 printed copies, 456 have been distributed. Additionally, DPH supported DDPHE in the planning and prioritization process for the 2019-2023 CHIP by co-developing a stakeholder engagement process from January – September and co-hosting two stakeholder meetings in September and October 2018. Lastly, DPH supported the drafting of the CHIP plan, which was submitted to the state in December of 2018. DPH began preparation for 2019 community health assessment activities by developing a plan for continuous assessment measurement and for engagement with Denver communities to inform population health monitoring efforts.

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

RESPONSE:

Several reports were developed and released in 2018 concerning the health of the residents of Denver. The Data Science and Informatics team completed nearly 2,000 reports to various requestors, achievable in part due to automation of several routine reports and the design of business intelligence dashboards for others. Twenty-five (25) maps were produced. Published reports addressed the Youth Health Assessment and depression in Denver relying on multiple information sources. DPH staff provided over 300 diverse health data points upon request of DDPHE for the national Big Cities Health Initiative Data Platform, and analyzed Denver’s comparative performance with other communities in the 2018 County Health Rankings Report. A number of dashboards were developed using Tableau for reporting and data-driven decision making. A public-facing Substance Use Exposure Dashboard was implemented along with four reports on marijuana use, further described in section B-6. Ad hoc reports on asthma emergency room visits and youth tobacco use were provided upon request to DDPHE. Several analyses of emergency department visits related to possible environmental exposures, communicable conditions, and injuries or illnesses associated with substance use. DPH and DDPHE collaborated to secure federal funding for a project provide early warning of overdose risks associated with Fentanyl.

DPH continues to have considerable and growing direct contact with members of public and health care providers reporting or seeking information about public health concerns. The Disease Investigation team fielded 370 calls and emails during working hours, while emergency Duty Officers managed 42 after-hour calls. The Disease Investigation team also

reached out to investigate cases of exposure or illness reported by others (including electronic reporting) and assessed over 440 animal exposure cases in 2018.

E. Public Health Emergency Preparedness Deliverables Include:

(i) The City and DPH agree that one emergency response plan is best for public safety, and agree to begin consolidating emergency response plans, annexes, and Department Operations Centers (DOC) in 2018, with a goal of full consolidation by 6/30/2019. The combined DOC will be located at DDPHE.

(ii) DPH will continue to provide advice on medical aspects of emergency management and preparedness, and retain the role of Public Health Medical Director. The City will make the final determination on all emergency response measures.

RESPONSE:

During 2018, activity focused on combining and updating DDPHE and DPH emergency response plans into a single set of documents (on target for June 30, 2019 completion); creating a Joint Public Health & Environment Department Operations Center in the Denver Post Building combining both agencies' staff under unified leadership; and establishing a Joint Duty Officer system for 24/7 incoming communications (operational on January 1, 2019). A major change involved DDPHE assuming prime contractor status for the Centers for Disease Control (CDC) Public Health Emergency Preparedness and Community Readiness Initiative grant programs, with one DPH staff member transferred to city employment in December 2018. Staff from both agencies were involved in four (4) Incident Command activations and participated in many tabletop exercises, drills, and functional exercises. Twenty-one (21) Health Alert Network notifications were issued to Denver healthcare providers related to a wide range of urgent health issues in 2018; these are now approved and co-branded by both agencies.

DPH continues to provide 24/7 Medical Director service and also serves the Office of Emergency Management in Healthcare and Hospital Branch Director positions in the City Emergency Operations Center. Staff also upgraded the Preparedness and Disease Investigation website.



11

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. offers pregnancy testing at no cost to any female client of child-bearing age; those testing positive are referred to women's services. For 2018, 36 pregnancy tests were given, and 2 pregnancy tests were positive.

B. An Emergency Service Patrol (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 2018 based on available resources.

RESPONSE:

In 2018, our average response time to all calls was 11:59.

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

RESPONSE:

The average length of stay in the detox was 24.2 hours for 2018 (time samples 6-25-2018 to 07-03-2018, 9-1-2018 to 9-14-2018 and 12-1-2018 to 12-14-2018).

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:

Detoxification:

- Average Daily Census
- Number of clients admitted more than one time for the program year
- Number of admissions of homeless clients
- Number of clients who did not pay any charges due for services rendered.
- Number of clients referred for an involuntary commitment; number obtained. Provide a copy of the standard of work to initiate an involuntary commitment.
- Number of referrals not accepted for services.

- Number of clients admitted for the first time

DUI Program: Patient Encounters

Emergency Services Patrol:

- Average response time
- Total calls for service
- Number of clients picked up per shift

RESPONSE:

Denver C.A.R.E.S Services	2016	2017	2018
Detoxification:			
Average Daily Census	79	94	105
Number of clients admitted more than one time for the program year	2,375	2,096	3,608
Number of admissions of homeless clients	19,146	17,478	23,870
Number of clients who did not pay any charges due for services rendered	6,847	3,117	1,182
Number of clients referred for an involuntary commitment	N/A	72	70
Number of clients admitted to involuntary commitment	N/A	20	20
Number of referrals not accepted for services	498	381	541
Number of clients admitted for the first time	4,364	5,312	4,196
DUI Program:			
Program Patient encounters	454	366	222
Emergency Services Patrol:			
Average response time in minutes	25:44	10:52	11:59
Total calls for service	10,722	13,578	11,704
Number of clients picked up per shift	13.0	13.3	12.4

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 and 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 client to staff and client to client assaults.
- Agreed upon High Utilizer Case Coordinator metrics.

RESPONSE:

Denver CARES provided regular quarterly reports to the city pertaining to assaults at CARES and agreed upon high utilizer care coordinator metrics.

2018 - Denver C.A.R.E.S Assaults	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Contractor (Client to Other)	-	-	1	1	1	2	-	-	1	1	-	3	10
Patient (Client to Client)	4	5	4	5	5	2	-	3	1	7	3	8	47
Staff (Client to Staff)	1	2	1	1	1	-	3	-	2	2	2	3	18
Total	5	7	6	7	7	4	3	3	4	10	5	14	75

2018 Scheduled Shifts Stats

Total Hours	9,560
# Clients Transported	11,704
Avg # Clients Transported per Shift	12.4

Monthly Scheduled Shift Stats

Shift	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Day (V1)	28.5	25.9	27.6	26.3	26.1	24.3	28.3	27.1	28.3	26.9	26.5	25.3	321.1
Cover (V3)	29.8	26.7	26.4	25.3	29.3	27.1	27.4	24.4	23.1	27.8	26.6	29.6	323.5
Night (V2)	26.8	22.1	25.2	24.5	27.8	28.4	26.3	20.5	25.4	28.6	29.9	26.7	312.2
Monthly Totals	85.1	74.7	79.2	76.1	83.2	79.8	82.0	72.0	76.8	83.3	83.0	81.6	956.8

2017 Scheduled Shifts Stats

Total Hours	10,202
# Clients Transported	13,578
Avg # Clients Transported per Shift	13.3

Monthly Scheduled Shift Stats

Shift	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Day (V1)	30.5	28.0	29.2	30.0	31.0	30.0	30.5	29.5	29.5	27.8	28.3	25.8	350.1
Cover (V3)	26.4	27.0	28.8	20.7	28.5	29.3	30.5	29.2	26.0	25.5	26.5	23.3	321.7
Night (V2)	30.2	27.9	30.4	28.3	31.0	28.5	30.2	31.0	29.6	30.8	29.6	20.9	348.4
Monthly Totals	87.1	82.9	88.4	79.0	90.5	87.8	91.2	89.7	85.1	84.1	84.4	70.0	1,020.2

2016 Scheduled Shifts Stats

Total Hours	8,247
# Clients Transported	10,722
Avg # Clients Transported per Shift	13.0

Monthly Scheduled Shift Stats

Shift	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Day (V1)	31.0	28.8	30.0	29.5	30.5	30.5	31.0	31.0	30.5	30.5	29.0	30.0	362.3
Cover (V3)	10.0	7.0	8.0	9.5	8.0	7.8	6.0	6.3	9.0	9.0	7.0	10.0	97.6
Night (V2)	30.8	28.8	31.0	30.0	30.5	29.5	31.0	31.0	31.0	31.0	30.0	30.5	365.1
Monthly Totals	71.8	64.6	69.0	69.0	69.0	67.8	68.0	68.3	70.5	70.5	66.0	70.5	825.0

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SUBSTANCE TREATMENT SERVICES



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Appendix A-5 Substance Treatment Services
1.5 Performance Criteria

To promote the goal of recovery, OBHS will report the following metrics:

A. OBHS patient census and ‘recovery’ measures

i. Total patient census in methadone treatment (Opioid Treatment Program)

RESPONSE:

OBHS is increasing the utilization of buprenorphine within our methadone dispensing program. To ensure clarity within the medication dispensing program, we are using the name Opioid Treatment Program (OTP) in lieu of methadone treatment. Using OBHS’ Substance Abuse Medication Monitoring System (SAMMS) Active Client Report 12/31/2018 patient census in methadone/ buprenorphine program is 605. As of February 1, 2019, this patient census has increased to 648.

1. Percent of patients on phases 1 through 5

RESPONSE:

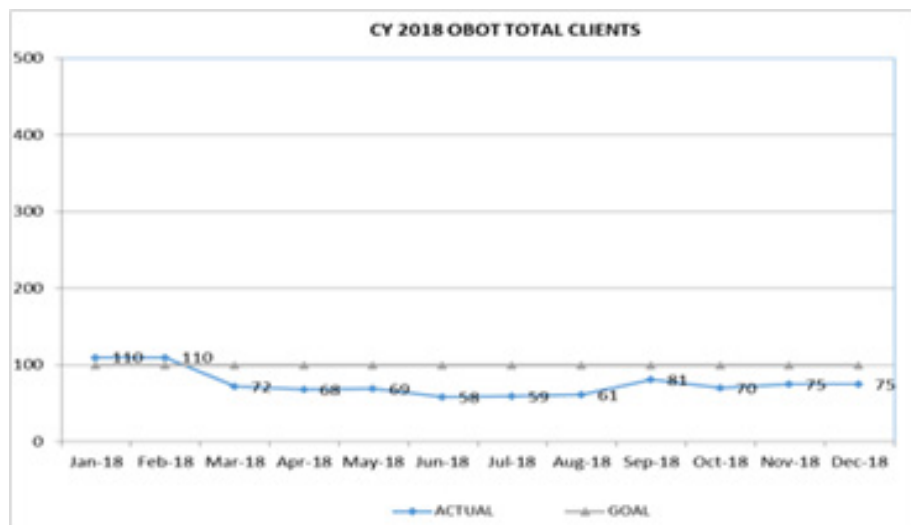
Daily (C7)	Phase 1 (2-days of home medication) (C5)	Phase 2 (3-days of home medication) (C4)	Phase 3 (4-days of home medication) (C3)	Phase 4 (6-days of home medication) (C1)	Phase 5 (13-days of home medication) (CT)
54%	9%	2%	7%	10%	17%

In 2017, the percent of patients within OBHS’ OTP phase 5 was 14%. In 2018, the number of phase 5 patients increased to 17%. The phase 5 designation represents patients with a substance use disorder in remission and stability within psycho-social domains.

ii. Total patient census in outpatient Suboxone

RESPONSE:

Using OBHS’ Suboxone access database 12/31/2018 patient census in Suboxone (OBOT) is 75. This is a decrease in patient census.



The decrease in patient census is a result of clinician turn-over. In late fall 2017, an OBOT physician and 3-substance use therapists moved to a new employer. During the recruiting process, OBOT intakes into OBHS were diverted to other Denver Health Suboxone programs. As of August 2018, OBOT was fully staffed and OBOT intakes and patient census are rebounding.

1. Percent of Suboxone patients considered on maintenance

RESPONSE:

92% of OBHS' Suboxone patients in OBOT are considered maintenance. Maintenance is defined as having a use disorder in remission and receiving a 30-day prescription for Suboxone. In 2017, OBOT classified 52% of the patient census as maintenance. While the patient census is less, the level of recovery patients experience has increased.

iii. Total patient census in traditional outpatient

RESPONSE:

Using OBHS' patient access database 12/31/2018 patient census in traditional outpatient is 86. The multi-disciplinary team working in OBOT and traditional outpatient is the same. Staff turn-over resulted in a decline of patient census.

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

RESPONSE:

Using Signal Behavioral Health Network's BEACON web-portal timeframe 1/1/2018 - 12/31/2018 OBHS' patient discharges experienced a 91.4% reduction of use post-treatment. In contract year 17-18 C-STAT no longer provides a state level goal for comparison.

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

RESPONSE:

All quarterly reports were submitted during contract year 2018. See table below for monthly statistics.

	January	February	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Methadone Census	537	543	567	578	607	642	635	667	682	679	561	605
# Admissions	63	61	54	48	57	58	61	67	38	52	47	54
# Discharges	32	44	28	24	47	50	39	35	23	53	44	10
# unique patients dosed in jail	27	23	27	67	27	56	52	53	50	74	70	35
OP Suboxone Census	110	110	72	68	69	58	59	61	71	79	74	75
# Admissions	20	9	5	4	2	4	1	5	10	8	8	6
# Discharges	16	21	22	0	3	10	0	5	0	2	4	5
Traditional Outpatient Census	110	102	59	73	66	66	73	83	87	75	77	86
# Admissions	17	17	17	4	6	11	15	12	9	11	18	13
# Discharges	12	23	18	0	19	15	7	4	9	12	16	4

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

2018 Annual Admissions into Adult Substance Treatment Programs	
OTP (OMAT)	660 <i>(total admissions from 2017 to 2018 increased by 63%)</i>
OBOT	82
TOP	150
<i>Data source Signal Behavioral Health Network BEACON web-portal: data pulled 3.01.2019</i>	

i. For TOP; 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 timeframe 1/1/2018 – 12/31/2018: OBHS’ admitted 224 TOP/ OBOT patients within 7-days, a rate of 96.7%.

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 are considered admission priority populations. Pregnant women with a substance use diagnosis receive admission before other populations seeking treatment. During contract year 2018, OBHS served 66 pregnant women within our special women’s and

family services (WFS) program. Pregnant women seeking substance treatment services are provided an intake within 24-hours of initial contact with our clinic; 100% of pregnant women were enrolled in WFS within 24-hours.

During Contract year 2018, OBHS served 160 women with dependent children within our WFS program. 96.6% of women with dependent children accessed services within 7-business days. The remaining 3.3% of women with dependent children were enrolled into WFS after the standard 7-business days to access; no women with dependent children were denied access to care.

- i. Sixty percent of mothers in treatment as part of the Women and Family Services (WFS) program will be free of any illicit substance as measured by the last urine analysis before delivery.

RESPONSE:

Of 66 pregnant women, WFS has information on 37 deliveries. The remaining patient population is still pregnant, has miscarried, or moved/transferred clinics. 62% of infants delivered by women, enrolled in treatment as part of WFS, were free from alcohol and illicit substances. Of the 37 patients that delivered while in treatment, 24 (or 64.9%) did not have a positive urine drug screen for alcohol or illicit substances.

- ii. If positive will include percentage of population positive with illicit opioid substance.

RESPONSE:

11% of the patients that delivered while in treatment had a positive urine drug screen for opioids (only) at the time of delivery. The rate of positive opioid drug screen is significantly less than the 40% reported in 2017. This is an indication that intensive treatment for opioid use disorder is effectively managed with medication assisted therapy.

- iii. Twenty or more pregnant women will be in treatment in this Fiscal Year.

RESPONSE:

OBHS served 66 pregnant women in contract year 2018.

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

RESPONSE:

During contact year 2018, 37 WFS patients delivered while in treatment. Of 37 the live births,

four neonates were treated for neo-natal abstinence syndrome (NAS) at Denver Health. Diagnosis data pulled from Denver Health's data warehouse on 4/5/2019 identifies Denver Health treated 28-neonates with an NAS diagnosis. The average length of stay (LOS) was 4-days.

This is a significant decline from 2017 in both NAS diagnosis and LOS. Comparatively in 2017, Denver Health treated 45-neonates with an NAS diagnosis reporting an average LOS of 15-days. Under the reporting requirements of section A-5 OBHS is asked to submit this total number. No analysis of the change is completed.

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MEDICAL SERVICES FOR ARRESTEES, PRETRIAL DETAINEES AND INMATES



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Appendix A-6 Medical Services for Arrestees, Pretrial Detainees and Inmates at Denver Health and Hospital Authority

1.6 Performance Criteria and Reports

A. The Correctional Care Medical Facility (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 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.

CCMF Services	2016	2017	2018
Discharges			
Denver	679	294	273
All Jurisdictions	950	725	856
Total Hospital Days			
Denver	2,980	1,981	1,161
All Jurisdictions	4,112	3,475	3,650
Average Length of Stay			
Denver	4.39	6.36	4.15
All Jurisdictions	4.29	6.00	4.04
CCMF Outpatient Clinic Visits			
Denver	1,100	1,449	2,407
All Jurisdictions	3,983	4,291	4,064
Denver Jail Patients Seen in Emergency Department	4,141	2,797	3,168

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

- (i) a daily census report for all inpatients at CCMF or DHMC;

(ii) within sixty (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.;

(iii) within sixty (60) days, monthly reports including ambulance, facility and physician billing;

(iv) within sixty (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,

(v) within sixty (60) days, a monthly A-6 report and B-3 report as agreed upon by the City and the Authority.

RESPONSE:

During 2018, all of the above listed reports have been submitted to the City timely. Reports on special projects are also included in the UM report such as Specialty Clinic Utilization Report. A daily census report is also 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 2018, 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.

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DENVER HEALTH MEDICAL PLAN AND CITY EMPLOYEE HEALTHCARE OPTION SURVEY



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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 Center for Quality Assurance (NCQA) standards will be used to define the Performance Standards above.

RESPONSE:

The plan met 5 of the 9 HEDIS standards.

Note: There were originally 11 measures; 2 were retired by NCQA in Calendar Year 2015 (CY-15). These two measures, 'Blood Pressure Control (< 140/80 mm Hg)' and 'LDL-C Control (< 100 mg/dL)' were both components of the CDC (Comprehensive Diabetes Care) HEDIS measure. 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 (COM) 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 percentage point 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 Upper Respiratory Infections (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 its overall Commercial population. The HEDIS rates listed in the table below are for all of DHMP's Commercial population. This includes CSA. DHMP uses an accredited third-party vendor to produce HEDIS rates. The vendor does not produce separate rates for CSA. Because of this, DHMP's Commercial HEDIS rates are used as proxy for CSA rates. Failure of DHMP to meet or better the National HMO published*

averages at the 50th percentile, or at a 3 percentage point 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 Measure	HEDIS 2017	HEDIS 2018	HEDIS Percentile	≥ 50th Percentile or 3% ↑ over the past year
1.	Breast Cancer Screening (BCS)	69.91%	72.06%	25 th	Did not meet
2.	Adult BMI Assessment (ABA)	92.21%	92.21%	75 th	≥ 50 th %tile
3.	Childhood Immunization Status – Combo 2 (CIS)	89.68%	91.86%	95 th	≥ 50 th %tile
4.	Childhood Immunization Status – Combo 3 (CIS)	89.68%	91.28%	95 th	≥ 50 th %tile
5.	Comprehensive Diabetes Care – HbA1c < 8 (CDC)	50.77%	48.18%	10 th	Did not meet
6.	Comprehensive Diabetes Care – BP < 140/90 (CDC)	69.97%	73.24%	75 th	≥ 50 th %tile
7.	Controlling High Blood Pressure (CBP)	69.83%	58.88%	25 th	Did not meet
8.	Appropriate Treatment of Children with URI (URI)	89.32%	88.39%	25 th	Did not meet
9.	Appropriate Testing of Pharyngitis (CWP)	77.46%	92.54%	75 th	≥ 50 th %tile

HEDIS 2018 Results:

Out of the 9 measures City and County of Denver chose, DHMP met performance standards (50th percentile benchmark or a 3 percentage point improvement) on 5 of the measures for the 2018 reporting year; 4 measures did not meet the performance standard.

A. Breast Cancer Screening (BCS)

The **Breast Cancer Screening (BCS)** measure increased from 69.91% to 72.06% in 2018, a rate increase of 2.15% percentage points. Currently, this measure is at the 25th percentile and will require a 0.09% percentage point rate increase to reach the 50th percentile.

BCS COM Population HEDIS 2018 (H2018)			
	Denominator	Numerator	Compliant Rate
Total Population H2017 (Data Year 2016)	771	539	69.91%
Total Population H2018* (Data Year 2017)	773	557	72.06%*
CSA Population H2018 (Data Year 2017)	71	49	69.01%

*Contracted performance measure

Results: For the Breast Cancer Screening (BCS) measure, there were 16 more numerator compliant people in measure than the previous year, which caused the rate increase. The Breast Cancer Screening (BCS) measure did have City and County of Denver members in the Commercial HEDIS population, and of the 71 members in the CSA denominator, 49 members were compliant. 69.01% of the City and County of Denver members got the appropriate care for this measure.

Interventions: While there have been ongoing communication and outreach interventions for members due for mammograms, new clinic-based interventions for BCS have also been implemented in Q3 of 2018, using Medical Assistants to schedule members for Mammograms while they are still in the clinic, in an effort to reduce barriers for members and increase rates of completed screenings. DHMP would also suggest using the Denver Health Mobile Women’s Health Mobile Clinic to perform mammography for City of Denver employees. DHMP would facilitate and help organize the effort with the City of Denver health and wellness team, and arrange the Mobile Clinic van at a couple of key locations of employee concentration during Breast Cancer Awareness Month.

B. Comprehensive Diabetes Care - HbA1c < 8 (CDC)

The **Comprehensive Diabetes Care - HbA1c < 8 (CDC)** measure dropped from 50.77% in 2017 to 48.18% in 2018, a rate decrease of 2.59% percentage points. Currently, the CDC measure is at the 10th percentile and will require a 10.62% rate increase to reach the 50th percentile.

HbA1c < 8 COM Population HEDIS 2018 (H2018)			
	Denominator	Numerator	Compliant Rate
Total Population H2017 (Data Year 2016)	323	164	50.77%
Total Population H2018* (Data Year 2017)	411	198	48.18%*
CSA Population H2018 (Data Year 2017)	29	29	100.00%

*Contracted performance measure

Results: The HbA1c < 8 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 noncompliant instances were City and County of Denver plan members. 100.00% of the City and County of Denver members got the appropriate care for this measure.

Interventions: DHMP QI staff, as well as representatives from DH and ACS, participate in the Denver Health Diabetes Collaborative QI work group for diabetes-related initiatives and quality measures. The collaborative regularly tracks patient outcomes for diabetes management and, in the last year, has promoted several EPIC/EMR system enhancements related to the management of diabetes including diabetic testing, eye exams and treatment for nephropathy that lead to better overall diabetes control (a HbA1c of < 8) and a reduction in risk for diabetes complications.

In 2018, DHMP QI continued the diabetic eye exam outreach project, originally started in 2015. This project is a collaboration between DHMP QI Department staff and Care Navigators from the DH Eye Clinic. The project involves Care Navigators conducting outreach calls to Commercial members who have been identified, through claims data, as needing either a dilated retinal exam or an eye camera screening. Once contacted, members are scheduled for an appointment with One Hour Optical or the DH Eye Clinic. As a result of this intervention, the number of completed diabetic retinal exams in 2018 increased by 22.6% from CY 2017 to CY 2018. The goal in 2018 for Commercial and Exchange members was 217; the final number of completed eye exams for Commercial and Exchange members was 266, exceeding the goal. In 2019, the project will continue and will identify barriers around members getting to their appointment in an effort to address the issue of patient no-shows to the clinic.

C. Controlling High Blood Pressure (CBP)

The **Controlling High Blood Pressure (CBP)** measure dropped from 69.83% in 2017 to 58.88% in 2018, a rate decrease of 10.95% percentage points. Currently, this measure is at the 25th

CBP COM Population HEDIS 2018 (H2018)			
	Denominator	Numerator	Compliant Rate
Total Population H2017 (Data Year 2016)	411	287	69.83%
Total Population H2018* (Data Year 2017)	411	242	58.88%*
CSA Population H2018 (Data Year 2017)	47	33	70.21%

*Contracted performance measure

Results: There were 45 more numerator negative people in measure than the previous year, resulting in this rate change. The CBP measure did have City and County of Denver members in the Commercial HEDIS population. Of the 47 members in the CSA denominator, 33 members were compliant. 70.21% of the City and County of Denver members got the appropriate care for this measure.

Interventions: Improved mapping for eligible encounter data, especially in the nurse-facilitated Drop-In Hypertension Clinic (where there is no associated claim) is an ongoing effort. 2017 claims did not reflect or capture the performance of these services and has under-represented quality of care for Controlling Blood Pressure (CBP). DHMP will be performing additional medical record reviews for this measure in 2019, in order to account for the absence of qualifying codes in the encounter record.

*Contracted performance measure

D. Appropriate Treatment of Children with URI (URI)

The **Appropriate Treatment of Children with URI (URI)** measure dropped from 89.32% in 2017 to 88.39% in 2018, a rate decrease of 0.93% percentage points. Currently, this measure is at the 25th percentile and will require a 1.98% percentage point rate increase to reach the 50th percentile.

URI** COM Population HEDIS 2018 (H2018)			
**This measure is an 'inverted' rate [1- (Numerator/Eligible Population)] where rate indicates appropriate treatment			
	Denominator	Numerator	Compliant Rate
Total Population H2017 (Data Year 2016)	103	11	89.32%
Total Population H2018* (Data Year 2017)	112	13	88.39%*
CSA Population H2018 (Data Year 2017)	5	2	60.00%

*Contracted performance measure

Results: There were 7 more numerator compliant people in measure than the previous year which caused the rate increase. The URI measure had 5 City and County of Denver members in the Commercial HEDIS population, and 3 were compliant with the measure. 60.00% of the City and County of Denver members got the appropriate care for this measure.

Interventions: We have added encounter data for select measures, including URI, as supplemental data to claims data, with the addition of supplemental data as a flat file in CY-18. In addition, there was an 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-19.

Beyond improvements in data capture, the URI performance will be presented in March of 2019 to the Denver Health and Hospital Authority (DHHA) Ambulatory Care Services (ACS) Quality Improvement Work Group for Pediatric Care for their discussion and recommendation on provider education for both coding and encounter capture, and for best practices for URI treatment for children age 3 months -18 years.

1.4 City Employee Healthcare Opinion Survey Results

The 5.0 version of the Consumer Assessment of Healthcare Providers and Systems (CAHPS) Health Plan Survey has been in use since 2013. DHMP conducts the CAHPS Adult Survey 5.0H annually.

CAHPS Questions	2016 CAHPS	2017 CAHPS	2018 CAHPS	2018 NCQA Quality Compass Mean	Compared to Mean
Satisfaction with the Health Plan					
<i>Overall Rating of Health Plan*</i> Report score of 8, 9, 10 category	61.40%	66.40%	60.13%	63.64%	3.51% <u>below</u>
<i>Flu shot (ages 18-64)*</i> Report yes responses	85.20%	85.61%	77.40%	50.49%	26.91% <u>above</u>
Getting Needed Care					
<i>Overall Rating of Health Care*</i> Report score of 8, 9, 10 category	68.60%	74.91%	72.35%	77.51%	5.16% <u>below</u>
<i>Easy to get appointment with specialist*</i> Report score of always/usually	59.70%	71.97%	75.00%	84.00%	9.00% <u>below</u>
<i>Easy to get care, tests, or treatment believed necessary*</i> Report score of always/usually	78.60%	79.85%	79.62%	88.54%	8.92% <u>below</u>
How Well Doctors Communicate					
<i>Explain things in a way you could understand*</i> Report score of always/usually	97.20%	96.98%	97.30%	95.99%	1.31% <u>above</u>
<i>Listen carefully to you*</i> Report score of always/usually	96.80%	94.85%	95.95%	94.85%	1.10% <u>above</u>
<i>Show respect for what you had to say</i> Report score of always/usually	98.80%	98.28%	95.50%	96.18%	0.68% <u>below</u>
<i>Spend enough time with you*</i> Report score of always/usually	95.20%	92.70%	91.89%	93.04%	1.15% <u>below</u>

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

From the 9 CAHPS scores, 3 of the best 7 survey questions out of 9 performed above the NCQA Quality Compass Mean; 4 of the best 7 were below the NCQA Quality Compass Mean.

Analysis:

DHMP has maintained high levels of satisfaction for Flu Shot, Explain Things in a Way You Could Understand, and Listen Carefully to You survey items.

DHMP has seen improvement in the Easy to Get Appointment with Specialist question within the Getting Needed Care section of questions with an increase of 3.03% percentage points.

While scores related to Getting Needed Care were below the national average, primary care has been exceeding access goal for January through March and specialty care access has seen a 14 percent improvement in the last 3 months. This improvement in access performance will continue to be monitored. 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 2018.

Interventions:

Health plan customer service continues to be a DHMP strategic priority for 2019. For access-related support, the DHMP Health Plan 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 2019.

To facilitate ongoing improvements, results of CAHPS surveys are reviewed and discussed annually with the DHMP Quality Management Committee (QMC), DHMP operational leadership, ACS, DHHA Executive Staff and the DHMP Board of Directors. The QI Department completes a comprehensive Open Shopper Study annually, and facilitates follow-up on recommendations to improve access, accuracy of member materials and customer service with both Health Plan Member Services and Provider Relations Departments through ongoing Network Management Committee (NMC) efforts. DHMP QI partnerships with ACS will continue to facilitate improved access and member experience.

We have increased access to primary care through the expansion of the existing clinics, as well as opening new clinics, hiring more providers and increasing clinic hours in 2016-18. This

significant increase in primary care, especially for the un- and underinsured patients, is a critical component in improving overall health status in the community; however, the increase results in large increased demand for specialty services. The creation of an Outpatient Medical Center (OMC), with a planned completion in 2020, 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 a 290,000+ 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.

Additionally, 2019 changes to the scheduling templates in clinics, designed to increase available visits for primary and specialty care and in combination with a reorganization in the Appointment Center in 2019, are intended to provide a larger number of appointments and a more streamlined and focused access for those appointments.

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ROCKY MOUNTAIN POISON AND DRUG CONSULTATION SERVICES



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Appendix A-8 Rocky Mountain Poison and Drug Consultation Services

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 and the current certification is effective through 2022.

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

RESPONSE:

In 2018, the Rocky Mountain Poison Center distributed 4,384 pieces of public education materials on poison prevention for human and animals, in both Spanish and English, in the Denver Metro area. We launched a new Colorado Poison Center website (www.copoisoncenter.org) that provides one-click contacting by phone, web chat, text and email to the public. The [website](http://www.copoisoncenter.org) offers commonly requested poison prevention materials in English and Spanish and a form to easily request materials. We also have a Marijuana Health & Safety Line and [web page](#) to provide Denver area residents/visitors with resources concerning safe use of products and a means to ask health & safety questions.

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, 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:

RESPONSE:

Number of calls from Denver County and total State calls for:

- Poison Center
- Drug Consultation Center

# Calls	2016		2017		2018	
	Denver	State	Denver	State	Denver	State
Poison Center ¹	10,488	77,550	9,412	69,559	4,247	32,416
Drug Consultation Center ^{2,3}	35	82,522	131	87,153	221	75,915

¹ Includes poison center calls and public health emergency service calls (COHELP)

² State totals combine Denver County, Colorado and out-of-state calls and electronic inquiries

³ Client base changes annually

Call Volume Trends Analysis: In 2018, the total Denver & Colorado calls for the Poison Center decreased 55% due to CDPHE stopping our support of the Medical Marijuana Registry program which was as significant volume of calls. However our total exposure calls remain constant or increasing, sometimes involving care recommendations to healthcare facilities and follow ups. RMPDC launched a new Colorado Poison Center website (www.copoisoncenter.org) in March 2018 which allows contacts through webchat, text and email to improve ease of getting information (628 contacts resulted in 2018). RMPDC expects to increase information calls with the expanded communication features on the new website 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 169% over the last year; due to 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 that frequently get such requests for information and we would like to further that during 2019 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 forty-fifth (45th) day after the end of the reporting period.

RESPONSE:

See table below.

2018 Monthly Denver Health RMPDC A-8 Services <i>Providing Drug Consultation Services for the City and County of Denver</i>					
Drug Consultation Center Program (A-8 Program)	1Q2018	2Q2018	3Q2018	4Q2018	2018 Total
<i>Denver Drug Consultation Line Case Volume</i>	46	63	41	71	221
<i>All Other Drug Center Client Case Volume</i>	19,768	20,541	17,732	17,874	75,915
Total Drug Center Cases	19,814	20,604	17,773	17,945	76,136
Other RMPDC Services Benefitting Denver Residents					
<i>Poison Center* Cases from Denver county (answering calls 24/7/365 within 6 rings**)</i>	1,064	1,028	1,100	1,055	4,247
<i>Poison Center* Cases from All Others (only Colorado calls)</i>	7,700	8,122	8,090	8,504	32,416
<i>Poison Center* Public Education Pieces (English or Spanish) Distributed to Denver County</i>	1,533	2,151	700	1,366	5,750
<i>*Poison Center is certified by American Association of Poison Control Centers thru 2022</i>					
<i>**Poison Center physician consultations occur within 10 minutes</i>					

H. Requests for consultation services to City and County of Denver regulatory agencies will be responded to within 48 business hours.

RESPONSE:

RMPDC physicians and toxicologists are available 24/7/365 for consultations and other support services to City and County of Denver staff. We have had several inquiries from DDPHE over 2018 involving kratom, marijuana, pesticides used in marijuana production and for a collaboration related to laboratory analyses.

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CLINICAL AND LABORATORY SERVICES FOR THE CITY'S DEPARTMENT OF ENVIRONMENTAL HEALTH



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Appendix A-9 Clinical and Laboratory Services for the City's Department of Environmental Health

1.5 Performance Criteria

Clinical and Laboratory Services for the City's Department of Environmental Health are a Core Service as defined in the Operating Agreement.

A. The Authority's Department of Pathology and Laboratory Services (DPLS) shall provide service 24 hours per day, seven days per week. DPLS agrees to render Lab Services for the patients of the City in accordance with orders given by the physicians treating the patient.

Response:

DPLS provided all laboratory services 24 hours per day, seven days per week.

B. DPLS shall use reasonable efforts to complete tests within stated expected turnaround times (TAT) following receipt of the specimen and the requisition. In general, TAT should be no more than four (4) days following receipt of the specimen and the requisition, unless the test is esoteric, anatomic pathology, molecular diagnostic testing, or a microbiology test which requires longer turnaround. DPLS pricing and TAT are hereby attached as Exhibit A, and incorporated by reference into the Agreement.

RESPONSE:

Approximately 93% of all test results were sent within 60 minutes of receipt, while the remainder were specialty or send out tests. All turnaround times were met within a 24 to 72 hour completion of all assays ordered and performed in 2018.

C. 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.

D. DPLS agrees to deliver a copy of the laboratory report in a timely manner and per the hospital laboratory TAT's. The laboratory test report will include at a minimum: patient's name, date of test, test name, test result, normal values, laboratory name and address. DPLS agrees to make all records on the City patients to whom DPLS has rendered services available for the City upon request.

RESPONSE:

DPLS will deliver a copy of turnaround times when requested. Turnaround times were met with all in house testing being resulted within 24-72 hours or less from receipt. 93% of all testing was reported within 60 minutes.

E. 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.

F. 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.

G. 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 2018.

H. 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 2018.

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CENTER FOR OCCUPATIONAL SAFETY AND HEALTH (COSH) AND WORKER'S COMPENSATION TRIAGE LINE



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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

RESPONSE:

Center for Occupational Safety & Health (City Only)	2016	2017	2018
Workers' Compensation Encounters	3,044	3,583	2,949
Initial Visits (new workers' comp cases)	484	616	441
Follow-up Visits (workers' comp)	2,560	2,967	1,615
Emergency Room Visits (CSA only)	144	182	173
Referrals	796	961	892

- Average time in days from initial treatment to Maximum Medical Improvement (MMI) Per Body Part

RESPONSE:

Body Part	2016	2017	2018
Abdomen			
Average (days)	N/A	11	10
Median (days)	N/A	11	5
Ankle			
Average (days)	49	69	125
Median (days)	43	35	34

Body Part	2016	2017	2018
Arm			
Average (days)	51	90	74
Median (days)	28	45	4
Back			
Average (days)	61	62	68
Median (days)	40	43	26
Chest			
Average (days)	19	29	4
Median (days)	19	29	3
Ear			
Average (days)	N/A	198	9
Median (days)	N/A	198	9
Elbow			
Average (days)	61	98	26
Median (days)	71	85	4
Eye			
Average (days)	3	26	19
Median (days)	3	10	4
Face			
Average (days)	N/A	14	14
Median (days)	N/A	7	3
Finger			
Average (days)	35	71	52
Median (days)	18	29	10
Foot			
Average (days)	8	52	58
Median (days)	3	27	30
Forehead			
Average (days)	N/A	5	N/A
Median (days)	N/A	5	N/A

Body Part	2016	2017	2018
Genitals			
Average (days)	N/A	26	N/A
Median (days)	N/A	26	N/A
Groin			
Average (days)	N/A	34	466
Median (days)	N/A	32	466
Hand			
Average (days)	27	41	29
Median (days)	10	24	9
Head			
Average (days)	21	28	14
Median (days)	17	15	5
Hip			
Average (days)	N/A	24	382
Median (days)	N/A	7	382
Jaw			
Average (days)	N/A	48	N/A
Knee			
Average (days)	55	79	124
Median (days)	41	56	65
Leg			
Average (days)	80	51	63
Median (days)	38	30	41
Lip			
Average (days)	N/A	7	1
Median (days)	N/A	7	1

Body Part	2016	2017	2018
Lung			
Average (days)	N/A	N/A	36
Median (days)	N/A	N/A	36
Mouth			
Average (days)	N/A	N/A	63
Median (days)	N/A	N/A	1
Multiple			
Average (days)	95	72	52
Median (days)	54	37	21
Neck			
Average (days)	34	63	71
Median (days)	34	22	71
Nose			
Average (days)	N/A	66	13
Median (days)	N/A	56	13
Rib			
Average (days)	N/A	7	N/A
Median (days)	N/A	7	N/A
Shoulder			
Average (days)	49	108	114
Median (days)	29	92	65
Stomach			
Average (days)	N/A	123	N/A
Median (days)	N/A	123	N/A
Thigh			
Average (days)	N/A	13	4
Median (days)	N/A	13	4

Body Part	2016	2017	2018
Thumb			
Average (days)	N/A	N/A	36
Median (days)	N/A	N/A	22
Toe			
Average (days)	N/A	61	10
Median (days)	N/A	22	10
Wrist			
Average (days)	43	71	86
Median (days)	38	47	19
Total MMI averaged days	49	66	72
Total MMI median days	30	34	12

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

Center for Occupational Safety and Health
Non-Workers' Compensation Encounters by Agency or Department as identified below.

RESPONSE:

Agency	2016	2017	2018
Animal Control	1	1	1
Art Museum	49	20	30
Arts and Venues	53	32	28
Civil Service Commission	55	226	196
Community Planning	-	-	1
Department of Finance	-	1	1
Department of Safety	136	191	65
Denver International Airport	2	1	6
Public Health and Environment	-	15	38

Agency	2016	2017	2018
Excise & License	-	2	1
Fire Department	194	99	292
General Services	30	20	18
Human Services	9	3	3
Marshal Division	5	-	4
Parks and Recreation	799	537	242
Police Department	193	116	115
Public Library	65	65	70
Public Works	558	544	494
Sheriff's Department	411	288	248
Social Services	2	3	2
Tech Services	-	-	2
TOTAL	2,562	2,164	1,857

Other services as requested in the prior contract year.

RESPONSE:

Other services not requested in prior contract year.

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 Manager 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 other reports 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 medical 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 Denver Health medical interpretation, Language Line services, or CyraCom Language Solutions.

RESPONSE:

Criteria Met.

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

RESPONSE:

Criteria Met.

G. The Authority will provide a monthly 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.

RESPONSE:

City Program Case Volumes	2017	2018
Uninsured Citizen Medical Triage Cases (non-DH patients)	1,589	1,756
Uninsured Citizen Behavioral Health Cases (non-DH patients)	21	41
Citizen Medical Triage Cases (non-DH patients, insured)	10,099	8,034
Behavioral Health Cases (non-DH patients, insured)	176	194
Referral Cases (offer resources in the City, non-DH patients)	1,008	801
Totals	12,893	10,826
Percent of all calls from Uninsured Denver Citizens	12%	17%
Other Calls:		
City Physician Medical Triage Cases (non-DH patients)	2,134	1,996
All other Medical Triage Cases (DH patients who live in the City)	24,093	35,179
Medical Interpretation (minutes; non-DH patients)	7,852	5,611
Estimated Total Cost of Program	\$ 336,790.74	\$ 359,365.97
Total Cost to the City for Uninsured*	\$ 60,000.00	\$ 60,000.00
*This is a flat fee service contract for \$60,000 each year as per the agreement		

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ACUTE AND CHRONIC HEALTH CARE AT DENVER COUNTY JAIL AND DOWNTOWN DETENTION CENTER



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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 written agreement of the parties in the Utilization Management process:

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

RESPONSE:

Denver Health works collaboratively with the Denver Sheriff's office through the following recurring meetings and reports:

1. Continuous Quality Improvement - Quarterly Meeting
2. Utilization Management Meeting (includes CCMF)
3. Administrative meetings - Bi-weekly Summary Reports
4. Monthly Statistical report
5. Monthly Staff meetings
6. Suicide Prevention

B. Sheriff's Department Monthly Statistical Report on Health services Activities.

RESPONSE:

Criteria met.

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

RESPONSE:

Criteria met.

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

RESPONSE:

Not requested but available upon request.

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DENVER DEPARTMENT OF HUMAN SERVICES (CHILD WELFARE)



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APPENDIX B-4 DENVER DEPARTMENT OF HUMAN SERVICES (CHILD WELFARE)

1.4G PERFORMANCE CRITERIA: ASSESSMENT AND EVALUATION OF CHILDREN IN THE HOME

A. 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:

Performance Criteria	2017	2018
Number of families seen for home nurse visitations	69	84

B. 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:

Anticipated length of time to reach the stated goal is varies from one (1) 60-minute home visit up to 120 days due to the frequency and number of visits needed to meet individual family needs.

Performance Criteria	2017	2018
Average length of time to reach stated goal	Varies– 1 to 9 visits	Varies– 1 to 16 visits
Average visits to reach stated goal	4	4

C. 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.

RESPONSE:

We are continuing to work with Denver Health and the Denver Department of Human Services (DDHS) to access outcome data and screening tools to identify improvements in child and family conditions. This is somewhat limited due to difficulty in identifying and tracking

information about individuals and families no longer served by DDHS and/or Denver Health. As seen below in resource connections made, we have connected families to medical homes, immunizations, and ongoing programs.

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

RESPONSE:

See the table below for the Authority’s performance by outpatient indicator.

Output Indicators	2017	2018
Number of referrals received	182	253
Referrals received for children	167	238
Referrals received for pregnant women	15	15
Number on onsite consults	306	144
Number of home visits attempted	382	463
Number of home visits made	306	406
Number of unsuccessful attempts	76	57
Number and type of resource connections made	338	310
Ongoing programs	15	19
Household items/clothing/diapers	47	49
Housing	60	61
Daycare	4	4
Safety Folder	51	64
Ongoing education	31	6
Growth & Development/Educational handouts	113	71
Immunizations	2	6
Medicaid	5	5
Mental Health	10	25

The Authority and DDHS continue to work with staff to identify and track appropriate outcome measures.

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MARIJUANA PUBLIC HEALTH IMPACT MONITORING AND COMMUNICATION



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Appendix B-6 Marijuana Public Health Monitoring and Communication
1.2 Specific Time Frame for Performance

A. By March 31, 2018, the Authority shall deliver a proposal for enhancements and improvements to the public-facing Business Intelligence dashboards for marijuana health data to the City for review and input.

RESPONSE:

The public facing Substance Use Exposure Dashboard was launched in April 2018 after review with multiple stakeholders. After high initial interest, visits to the website averaged two to three daily, with occasional surges above 10 visits daily. Post-launch assessment with the Denver Department of Public Health and Environment (DDPHE) produced no changes in the Dashboard, but DDPHE informed the Authority’s Department of Public Health (DPH) that expanding data to multiple Denver regional jurisdictions was a low priority so that change was not implemented. Planning began to add 2017 & 2018 data. [This program returned funds due to position vacancies. Staffing returned to full strength in early 2019.]

Performance Criteria

B. Using the emerging Business Intelligence infrastructure, the Authority will develop a comprehensive monitoring system in concert with the Office of Drug Strategy (ODS) and the Mayor’s Office of Marijuana Policy (OMP) 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 exposure 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:

After meetings with the key stakeholders including DDPHE, ODS and OMP along with various Denver and Colorado interagency groups, several reports were created and shared in 2018 to provide different perspectives of the health and health system impact of marijuana, utilizing different data sources:

- o *Marijuana Surveillance Brief Report: Diagnosed Cannabis Poisoning and Adverse Effects*
- o *Marijuana Health Impact Monitoring: Using Electronic Health Records to Measure*

the Burden of Cannabis-Related Conditions on Denver County, 2017

- o *Trends in Marijuana Treatment Admissions, 2012-2016, Denver, Colorado*
- o *Marijuana-Related Emergency Department Visits and Hospitalizations*
- o *Substance Use Exposure Dashboard (described in Section A, above)*

Both the *Marijuana Surveillance Brief Report: Diagnosed Cannabis Poisoning and Adverse Effects* report and the *Marijuana Health Impact Monitoring: Using Electronic Health Records to Measure the Burden of Cannabis-Related Conditions on Denver County, 2017* report utilized data from the Colorado Health Observation Regional Data Service (CHORDS) which includes data from electronic health records (EHR) for patients receiving care in the ambulatory, emergency department or inpatient care settings across several Denver area providers. *The Trends in Marijuana Treatment Admissions, 2012-2016 Denver, Colorado* report utilized data from the Colorado Drug/Alcohol Coordinated Data System (DACODS), the primary database for individual patient information at the Colorado Office of Behavioral Health (OBH), a department of the Colorado Department of Human Services. The *Marijuana-Related Emergency Department Visits and Hospitalizations* report utilized data for emergency department visits and inpatient hospitalizations using the Colorado Hospital Association (CHA) database. The Substance Use Exposure Dashboard uses data from the Rocky Mountain Poison and Drug Center call center. In addition, a presentation was made at the National Association for County and City Health Officials (NACCHO) Annual Conference in July 2018 entitled, “Local Public Health’s Role in Monitoring the Impact of Marijuana Policy Changes.”

Each of these reports required negotiation for access to the data used. Data from CHORDS was provided under the existing agreement establishing CHORDS as a collaborative data sharing process by multiple Denver-area health care providers. New data use agreements were established to permit access to Colorado Hospital Association discharge data, DACODS data and data from the Rocky Mountain Poison and Drug Center.

C. Reports will be generated that describe patterns of usage for all defined groups. These may be stratified by age, socio-economic 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:

Efforts to understand the impact of marijuana on the Denver population focused primarily on new information about medical diagnoses and treatment, and were subdivided when practical by indicators of age, socio economic status, race and ethnicity and geographic area. The responsibility for administering the Marijuana Surveillance agreement shifted to DDPHE and its Public Health Inspections division, which requested that we work with them to create a sampling and analytic strategy for detecting molds, pesticides and other contaminants in retail specimens. Several drafts of an analytic plan were exchanged with finalization

anticipated in early 2019. DPH staff continued to meet with inter-agency incident reviews, the Cannabis Health & Safety Advisory Committee, the Colorado Retail Marijuana Public Health Advisory Committee, Denver’s Collective Impact Group, and the Denver Behavioral Health Plan.

D. Data sources that may 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, the National Survey of Drug Use and Health, and the Behavioral Risk Factor Surveillance System.

RESPONSE:

In addition to the sources cited above in Section B, the NACCHO presentation included data from Healthy Kids Colorado, inter-agency incident debriefs, and data from the National Syndromic Surveillance Program.

E. 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;
- Trends in Denver Health obstetric patients using marijuana;
- 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 health-related indicator data;
- Comparison chart comparing Denver to Colorado and national statistics where possible; and,
- Characteristics of youth entering state funded treatment centers.

RESPONSE:

The focus on marijuana health-care related data in 2018 primarily generated utilization data through the eyes and records of health care providers. The *Trends in Marijuana Treatment Admissions, 2012-2016, Denver, Colorado* report utilized data from Behavioral Health Services to examine treatment between 2012-2016 overall, and by race/ethnicity, gender, age at initiation, age groups, and other drug use categories. In the *Marijuana Health Impact*

Monitoring: Using Electronic Health Records to Measure the Burden of Cannabis-Related Conditions on Denver County, 2017 and Marijuana-Related Emergency Department Visits and Hospitalizations reports, marijuana associated emergency department or hospitalizations were defined as either: a) marijuana-caused healthcare utilization: when a marijuana diagnosis code is found in the primary diagnosis field; or b) marijuana-related healthcare utilization: when a marijuana diagnosis code is found in any diagnosis field. In the *Marijuana-Related Emergency Department Visits and Hospitalizations* report, marijuana-related and marijuana-caused hospitalizations and emergency department visits were examined over the time period from 2012-2017. Rates were also examined by gender and by age category across the time periods. Information in the Substance Use Exposure Dashboard allows display of data by type of drug, types of use, age, gender, whether exposure was intentional or accidental, and severity of symptoms. As noted in Section C above, priority was placed on characterizing contaminants in retail specimens in the second half of 2018, and a joint work-plan with DDPHE is under development for 2019.

F. 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.

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 within that quarter and planned activities in the subsequent quarter. Monthly activity summaries were also supplied with invoices per the request of DDPHE beginning in mid-2018.

G. At the request of the City or with City approval, the Authority will conduct marijuana abuse prevention activities that are indicated by stakeholder concern or analytic findings about trends in problematic health effects from marijuana, such as the development and translation of reports and infographics; social media posts; and meetings and presentations for members of the public.

RESPONSE:

DPH supported DDPHE Public Health Inspection division investigation of fungus-contaminated retail marijuana early in 2018, assessed concerns about a possible cluster of synthetic cannabinoid cases in June, and provided rapid-turnaround analysis of emergency department encounters associated with synthetic cannabinoid in December. Launch of the Substance Use Exposure Dashboard (SUED) was accompanied by email marketing and social media posts. The open rate for the partner update email was high (43%) and SUED website analytics suggest that over 100 external partners visited the page in the 10 days following the launch

and spent 7 minutes exploring the dashboard, on average. Analytics from the partner update show that 24% of partners receiving the email clicked on the dashboard link. DPH continues to participate in the various community engagement forums described in C, above, presented data on marijuana surveillance to the National Association of County and City Health Officials, addressed visiting delegations from California and New York City, and also attended the Denver Marijuana Management Symposium.

10

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.

RESPONSE:

In 2018, the Authority provided additional services when requested by the City.

1.2 SANE

G. 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 Forensic Exams	2016	2017	2018
Victim Exams	397	361	390
Suspect Exams	11	15	16
Total	408	376	406

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. In 2018, there were 0 hours of Expert Witness support provided/invoiced.

1.4 Competency Examination

RESPONSE:

In 2018, Denver Health provided competency evaluations as requested by the County Court.

A two hour block of time was set aside each Thursday and Friday to help reduce the rate of no show evaluations. Denver Health invoiced the City for a total of \$179,025 for competency evaluations.

Total Competency Examinations	2016	2017	2018
# Completed	111	152	262
# Fails to Appear	Not Reported	Not Reported	97

1.5 Blood Alcohol Draws

RESPONSE:

	2016	2017	2018
DUI Draws	262	277	509

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) No performance data. Annual final reconciliation is due on 03/31/2019.

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 has 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.

b) 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:

No performance data. Annual final reconciliation is due on 03/31/2019.

1.8 At-risk Intervention and Mentoring (AIM) Program

c) The Authority’s AIM program will provide services to over three hundred (300) people in 2018, and conduct an estimated 250 bedside interventions with youth, and approximately twenty (20) critical crisis interventions within the Authority. AIM will provide up to ten (10) trauma-informed care trainings around at-risk youth to various departments and staff member, including frontline emergency department staff, community and school-based clinic providers, and in-patient staff that care for injured patients.

RESPONSE:

The Authority’s AIM program provided services in accordance with the above program definition and terms stated in the Operating Agreement.

2018 AIM Data for Invoices			
Measure	2017	2018	City Criteria 2018
Number of bedside interventions	200	234 ¹	250
Individual served (unduplicated)	241	306	300
Trauma-informed care trainings	57	28	10
Critical crisis interventions	41	37	20

¹Due to many high acuity patient presentations, program outreach workers were taken into the community or spent longer periods of time with patients due to severe or fatal injuries and activities support client deaths and legal assistance.

d) AIM will provide up to ten (10) trauma-informed care trainings around at-risk youth to various departments and staff member, including frontline emergency department staff, community and school-based clinic providers, and in-patient staff that care for injured patients. Trainings will be 1-3 hour blocks of interactive sessions with outreach workers, molded to fit the needs of specific departments and clinics; these activities will be eligible for continuing education credits.

RESPONSE:

The Authority’s AIM program provided 57 trauma informed care trainings in accordance with the above program definition.

1.9 Heartsaver First Aid CPR AED Training. The Authority agrees to provide Heartsaver® First Aid CPR AED - Adult, Child and Infant training by a certified American Heart Association instructor(s) for up to 100 of the students attending the Denver Fire Department's Young Adult Career Exploration Camp. The course will prepare students to provide first aid, CPR, and use an automated external defibrillator (AED) in a safe, timely, and effective manner. Each student who completes the course successfully will be awarded a certificate or card which displays their newly acquired First Aid certification. The City will pay the Authority \$45.00 per student enrolled in the course. This payment is characterized as a fee for service. Invoices shall include the date of training and name of trainees.

RESPONSE:

Denver Health provides American Heart Association CPR training through Denver Fire Department's Young Adult Career Exploration Camp which occurs on an annual basis.

CRP AED Training	2018
Participants	73

1.10 Tactical Casualty Care (TCC) for Law Enforcement Training. The Authority agrees to provide Tactical Casualty Care (TCC) for Law Enforcement training for all Denver Police Department Recruits by instructors who are minimally state certified EMTs, or preferably, paramedics. The Authority will adhere to all POST mandates for the training, including the instructor ratio guidelines. The City will pay the Authority \$95.00 per student enrolled in the course. This payment is characterized as a fee for service. Invoices shall include the date of training and name of trainees.

RESPONSE:

Denver Health provides Tactical Casualty Care (TCC) for Law Enforcement Training for all Denver Police Recruits annually as needed through DPD's rotating academy schedule.

TCC for Law Enforcement	2018
Classes	3
Participants	39

1.11 OME Services. Denver Health will provide instrument sharpening for no charge utilizing the full-time onsite vendor. OME will need to either deliver the instruments to the main campus or arrange for transport via the Denver Health Courier. Biomedical waste, pathological waste, and sharps will be disposed of utilizing the vendor contracted to provide services to Denver Health. The DH Safety Department will arrange for the vendor to pick this waste up directly from the OME in coordination with the OME. The cost will be \$.19 per pound for biohazardous

waste and sharps and \$.85 per pound for pathological waste or any other items requiring incineration. DH will receive and process the invoices for these services and bill the charges to the OME.

RESPONSE:

Office of Medical Examiner - Waste Removal	2018
Biomedical and Sharps	6,423
Pathological and Chemo (incineration required)	790
Total	9,231

1.12 Department of Safety Fit for Duty Psychiatric Evaluations.

k) Performance Criteria. 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:

The Authority provided psychiatric evaluations in accordance with the terms stated in the Operating Agreement. In 2018, Denver Health provided three Fit for Duty Psychiatric Evaluations. See table below for performance details:

Performance Criteria	2018
# Psychological Fitness for Duty Exams	3
# Duty Exam appointments within 5 business days	3
# full report transmissions with physician signature	3
# Psychological Testing Related to Fitness for Duty Exam	2
Total Invoiced Amount	\$2,200

1.13 Substance Treatment and Education Program (STEP).

c) Performance Criteria. On an annual basis, the Authority shall report on program outcomes in the Annual Report to the City, which demonstrate program success in reducing school suspension, expulsion and drop out and promoting academic success. 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:

In 2018, the Authority’s STEP program provided services in accordance with terms stated in the Operating Agreement. Reported data is based upon the 2016/2017 school year (latest data available based upon school year). See table below for performance details:

	September	October	November	December	Year to Date (Cumulative)
Number of Youth Served ¹	133	124	140	148	545 - duplicated
Number of Substance Treatment Sessions ²	333	373	275	252	1233 - unduplicated
FTE Funded by the City	2.9	2.9	2.9	2.9	2.9

¹The number of youth served is duplicated in total column. For example, a kid served in September is likely to also be served in Oct/Nov/Dec so we count them as a user each month.

²The number of sessions provided are not duplicated and represent a therapy session total each of the 4 months being reported on.

Of the 75 kids who had treatment in the fall of 2016, the number of missed classes per semester decreased from an average of 148 at baseline to 115 during treatment. The number of missed classes remained decreased two semesters post-treatment at 127. Additionally, the number of behavioral incidents per semester decreased from a mean of 1.2 at baseline to 0.61 in the semester post-treatment and 0.4 two semesters post-treatment.

Also at Bruce Randolph School-Based Health Center (SBHC) STEP services during the 2016/2017 school year (latest data available based on school-year):

	Acceptance and Commitment Therapy without Animal-Assisted Therapy (ACT)	Acceptance and Commitment Therapy with Animal-Assisted Therapy (AAT ACT)
Overall Improvement in Mood	70% felt an improvement in mood	92% felt an improvement in mood
Satisfaction with the Therapy Session	82% were satisfied	92% were satisfied
Completed 16 Therapy Sessions	53% completed	78% completed
Sobriety	58% got sober	78% got sober
School Engagement	64% of students felt more engaged in school at the end of treatment	78% of students felt more engaged in school at the end of treatment
Mental Health Symptoms	58% of clients reduced their mental health symptoms	57% of clients reduced their mental health symptoms
Suspensions	23% reduction	71% reduction



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