



PEDIATRIC PRIMARY CARE MAPPING PROJECT

June 1, 2009

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Introduction

As requested by Dr. Steve Poole of the Colorado Children’s Healthcare Access Program (CCHAP), the Colorado Health Institute (CHI) created a series of maps to assist CCHAP in its needs assessment and strategic planning process. Ultimately, the following maps are intended to assist CCHAP in determining where to focus its efforts with respect to Medicaid and CHP+ private provider recruitment. To that end, the maps summarize where children enrolled in the Medicaid and the Child Health Plan Plus (CHP+) programs live relative to providers who potentially could provide primary care services to them.

Due to CCHAP’s objective to establish medical homes for children enrolled in CHP+ and Medicaid, these maps include a layer summarizing enrollment in these programs. They do not reflect the number of uninsured individuals by geographic location, but this could be an important factor in assessing providers’ ability to serve vulnerable populations. In addition, due to data limitations, these maps do not summarize the capacity of various providers to serve children.

REGIONAL ANALYSIS

The majority of the data presented in this paper is displayed by geographic region. In order to standardize regional findings and ensure the consistency of the analysis, the maps are summarized according to the 21 Colorado Health Statistics Regions developed by the Colorado Department of Public Health and Environment. The maps contained in this report and commensurate titles, regions and counties are summarized in Table 1.

Table 1. Map titles and regions

Map number and name	Colorado Health Statistics Region(s)	Counties
Map 1. Colorado Health Statistics Regions	All regions	All Colorado counties
Map 2. Denver County	20	Denver
Map 3. Adams and Arapahoe Counties	14, 15	Adams, Arapahoe
Map 4. Select Front Range Colorado Counties	3, 13, 16, 17, 21	Boulder, Broomfield, Chaffee, Clear Creek, Custer, Douglas, Fremont, Gilpin, Jefferson, Lake, Park, Teller
Map 5. El Paso County	4	El Paso
Map 6. Northeast Colorado Counties	1, 2, 18	Larimer, Logan, Morgan, Phillips, Sedgwick, Washington, Weld, Yuma
Map 7. Northwest Colorado Counties	11, 12	Eagle, Garfield, Grand, Jackson, Moffat, Pitkin, Rio Blanco, Routt, Summit
Map 8. Southeast Colorado Counties	5, 6, 7	Baca, Bent, Cheyenne, Crowley, Elbert, Huerfano, Kit Carson, Kiowa, Las Animas, Lincoln, Otero, Prowers, Pueblo
Map 9. Southwest Colorado Counties	8, 9, 10, 19	Alamosa, Archuleta, Conejos, Costilla, Delta, Dolores, Gunnison, Hinsdale, La Plata, Mesa, Mineral, Montezuma, Montrose, Ouray, Rio Grande, Saguache, San Juan, San Miguel

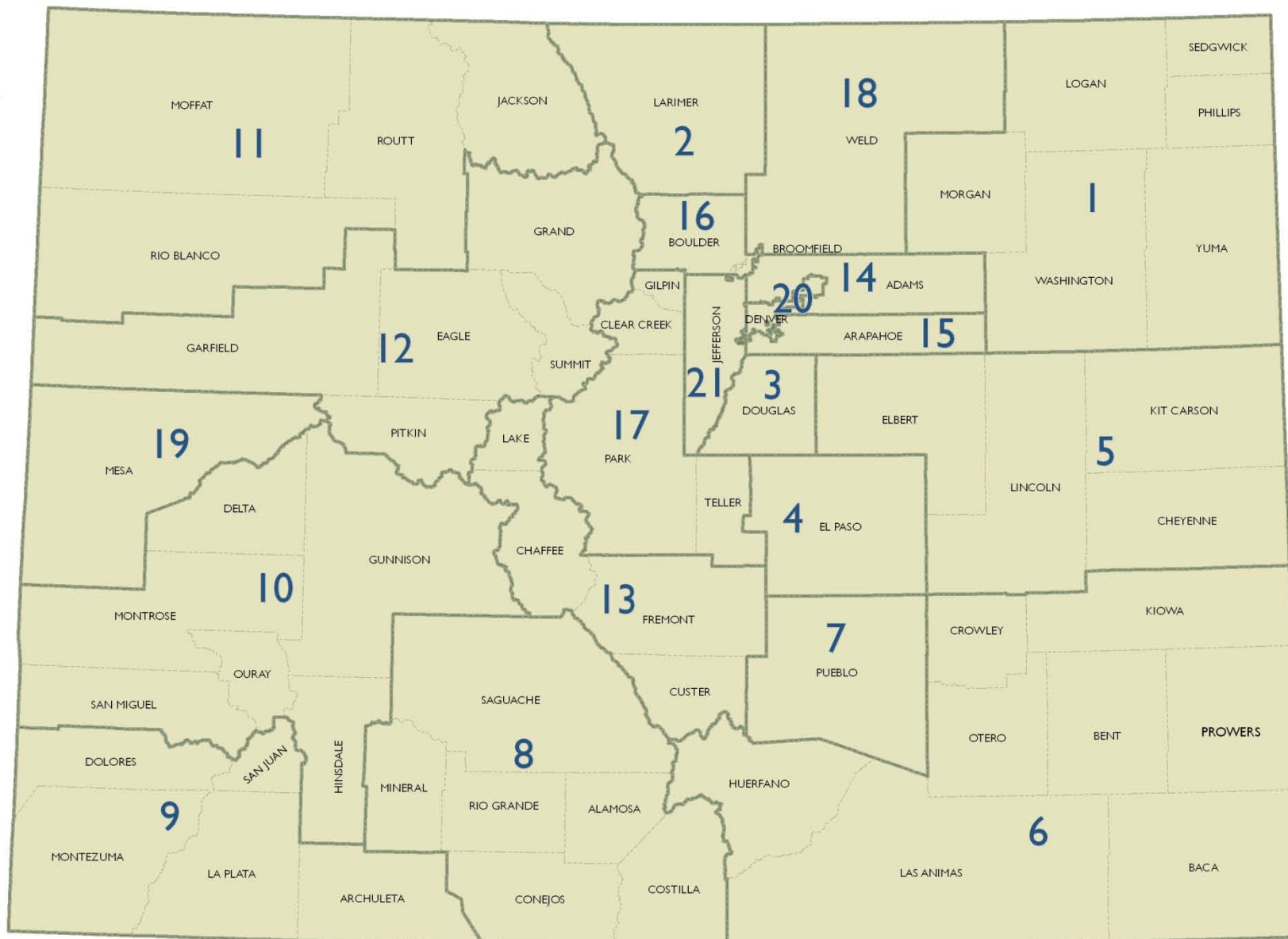


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Map I. Colorado Health Statistics Regions



Map created May, 2009



Regions developed by the Colorado Department of Public Health and Environment (CDPHE) (2008) www.cdphe.state.co.us

Map 2. Denver County: Health Statistics Region 20

Practices identified by CCHAP and CHI that could potentially provide primary pediatric care (2008)

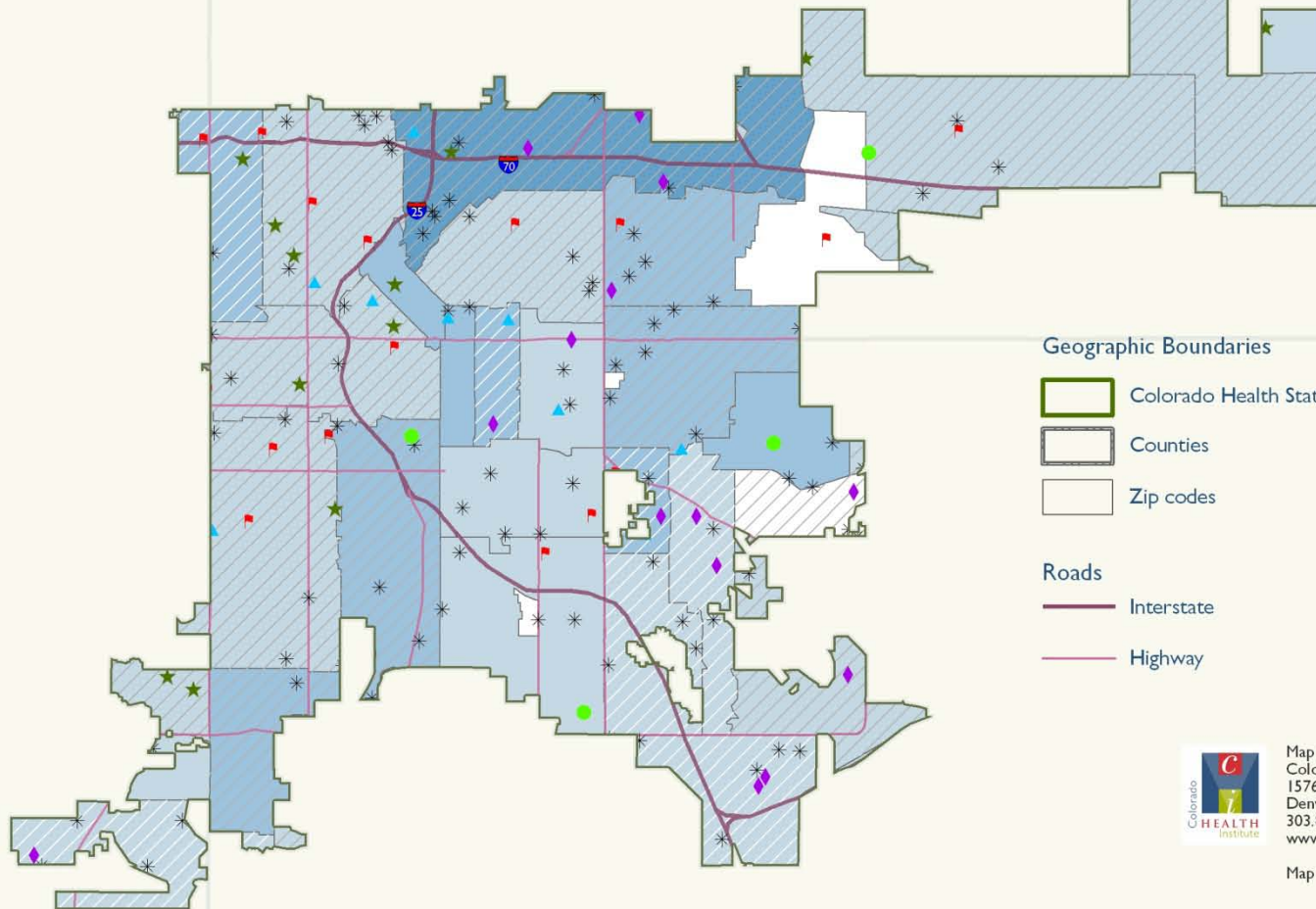
- Federally Qualified Health Center (FQHC)
- Family practice residency program
- ◆ Private pediatric practice
- * Private family physician practice*
- ★ School based health center
- ▲ Other community-based, non-profit clinic

Percent of total population below 200% of FPL by ZIP code (2000)

- No Data
- 0 - 25%
- 25.1 - 50%
- 50.1 - 75%

Total number of children enrolled in Medicaid or CHP+ 0-18 years of age (2008)

- 0 - 500 (no hatch)
- 501 - 1,000
- 1,001 - 10,000



Geographic Boundaries

□ Colorado Health Statistics Regions

□ Counties

□ Zip codes

Roads

— Interstate

— Highway



CCHAP and CHI are responsible for identifying practice site locations and categorization of practice types.

Points on map may overlap, thus some practices may not be visible.

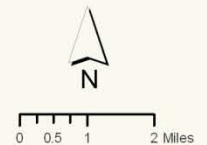
*Not all family physicians provide care to children.

See page 15 for source and data information.



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Map 3. Adams and Arapahoe Counties: Health Statistics Regions 14 and 15

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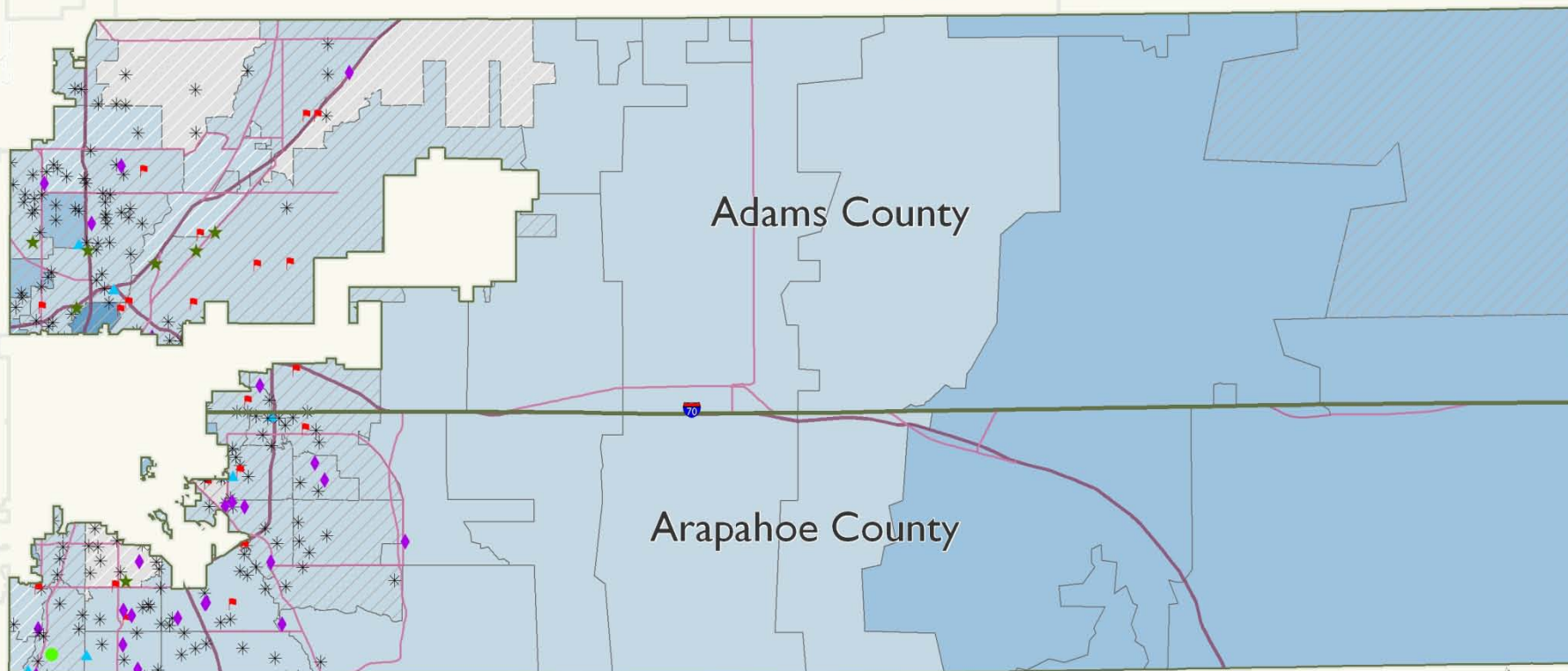
- 0 - 500 (no hatch)
- ▨ 501 - 1,000
- ▨ 1,001 - 10,000

Roads

- Interstate
- Highway

Geographic Boundaries

- Colorado Health Statistics Regions
- Counties
- Zip codes



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Map created May, 2009



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0 1.25 2.5 5 Miles

Map 4. Select Front Range Counties: Health Statistics Regions 3, 13, 16, 17 and 21

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 - Highway

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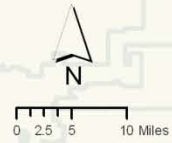
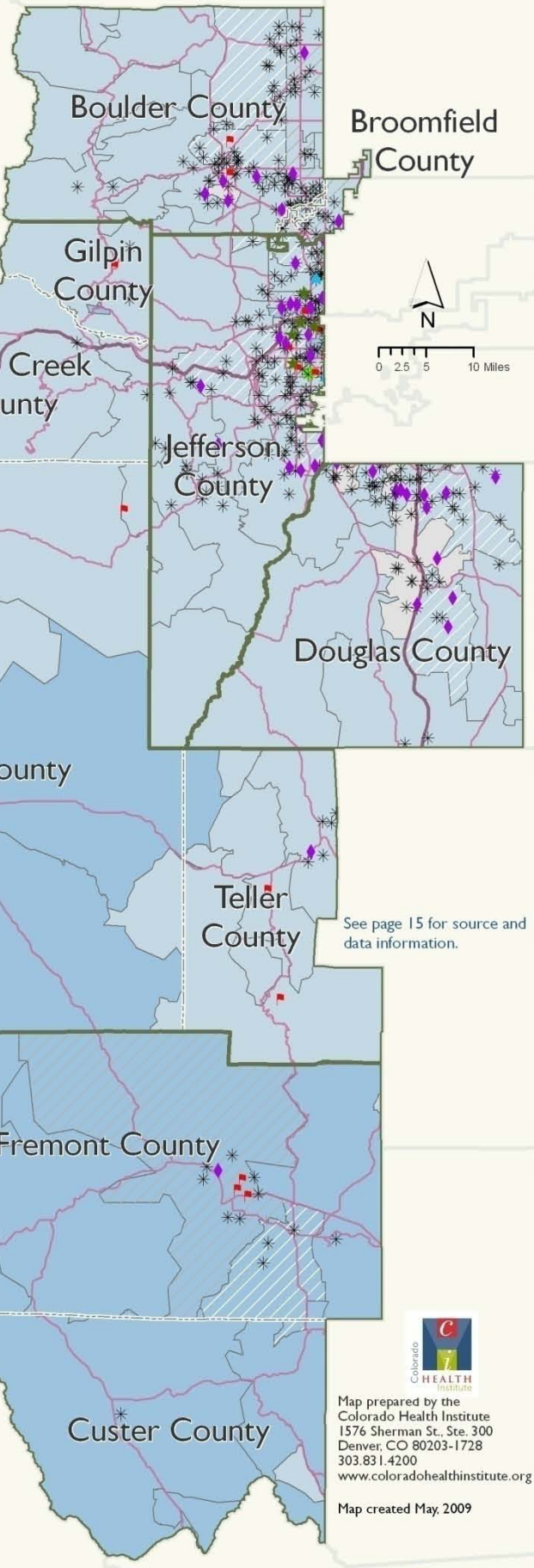
Geographic Boundaries

- Colorado Health Statistics Regions
- Counties
- Zip codes

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Map created May, 2009

Map 5. El Paso County: Health Statistics Region 4



Practices identified by CCHAP and CHI that could potentially provide primary pediatric care (2008)

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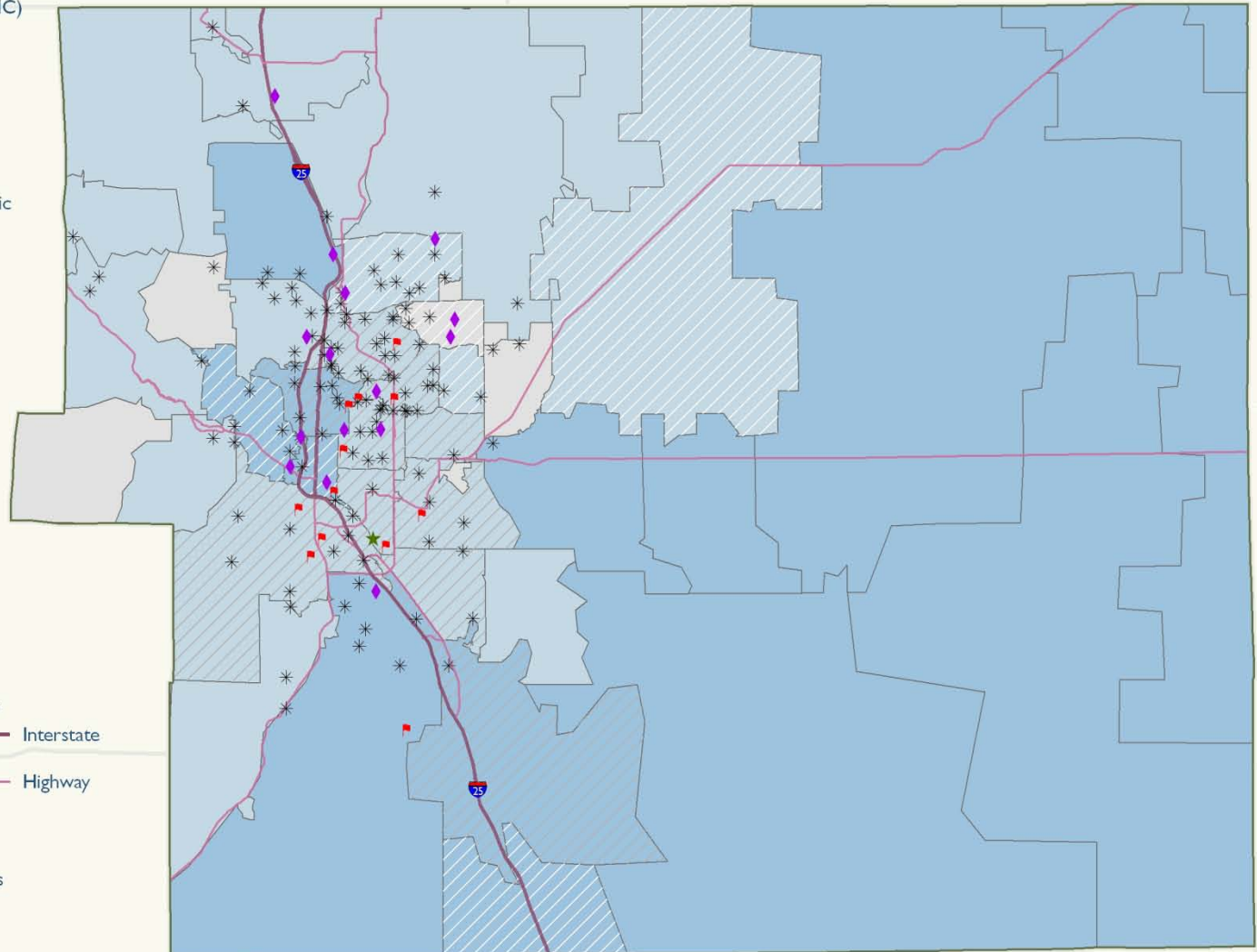
Total number of children enrolled in Medicaid or CHP+ 0-18 years of age (2008)

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- Roads
- Interstate
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Geographic Boundaries

- Colorado Health Statistics Regions
- Counties
- Zip codes



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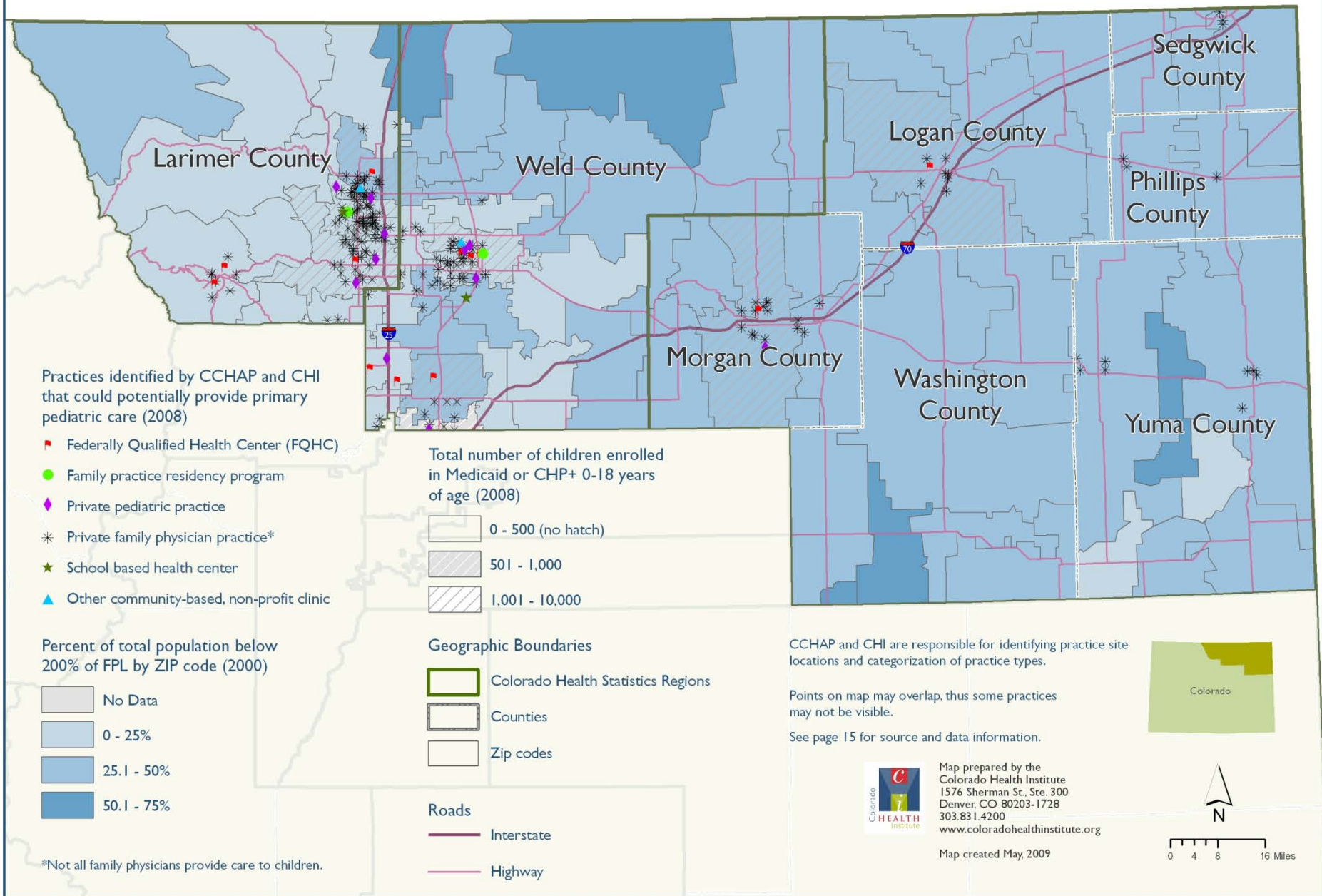


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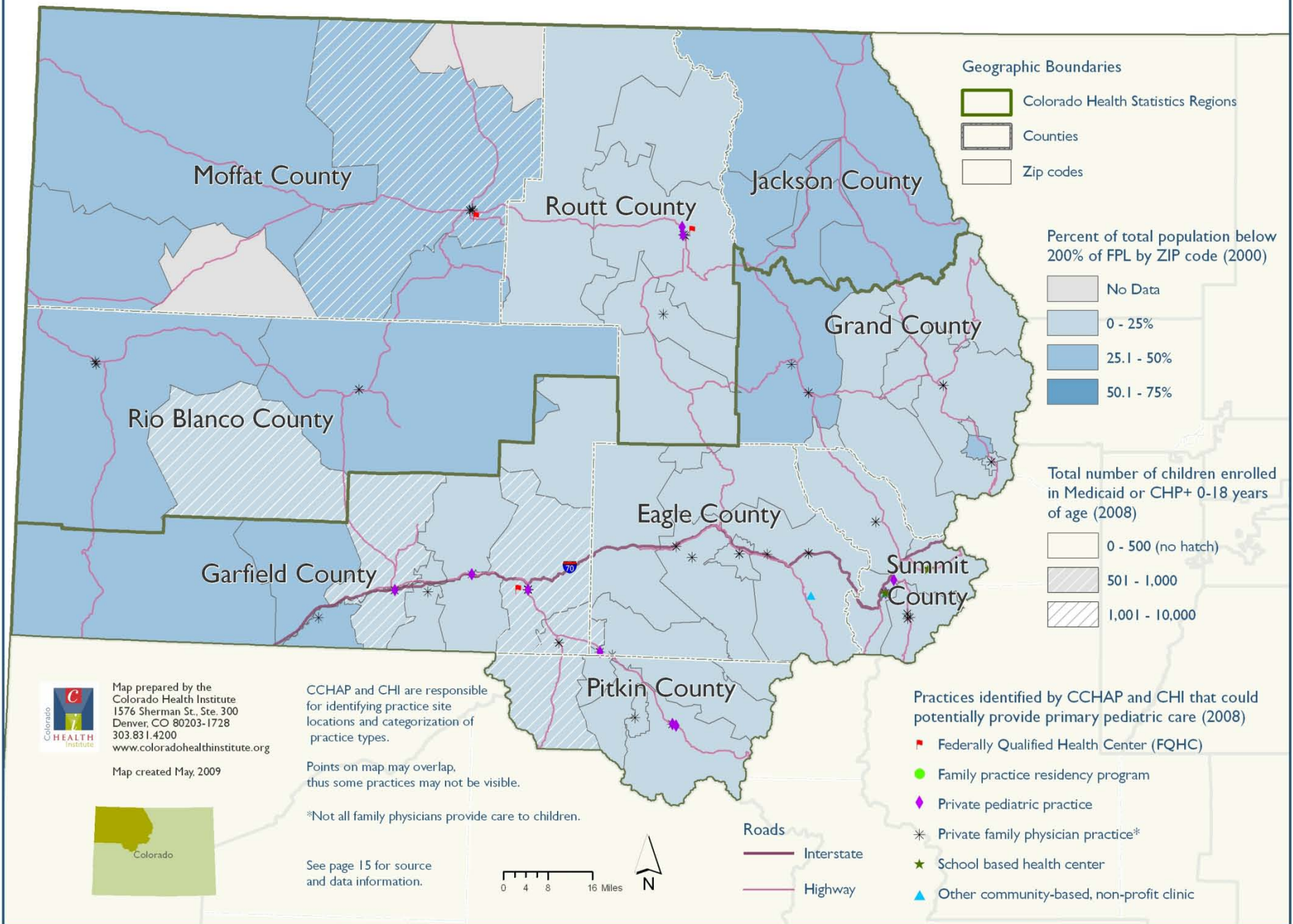


0 1.25 2.5 5 Miles

Map 6. Northeast Colorado Counties: Health Statistics Regions 1, 2 and 18



Map 7. Northwest Colorado Counties: Health Statistics Regions 11 and 12



Map 8. Southeast Colorado Counties: Health Statistics Regions 5, 6, 7

Practices identified by CCHAP and CHI could potentially provide primary pediatric care (2008)

- Federally Qualified Health Center (FQHC)
- Family practice residency program
- ◆ Private pediatric practice
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Geographic Boundaries

- ▭ Colorado Health Statistics Regions
- ▭ Counties
- ▭ Zip codes

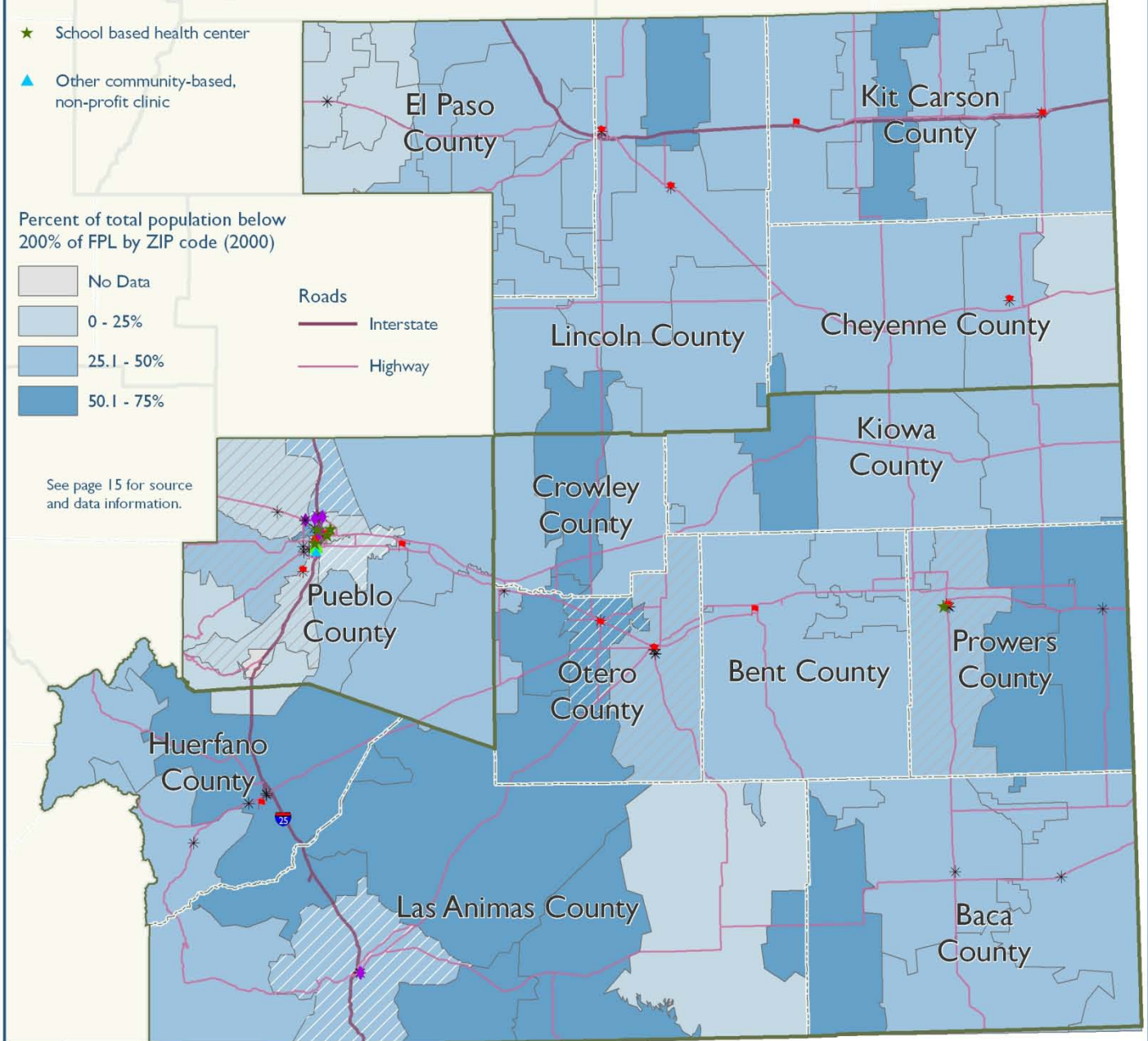
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Map created May, 2009



0 3.5 7 14 Miles

Map 9. Southwest Colorado Counties: Health Statistics Regions 8, 9, 10 and 19

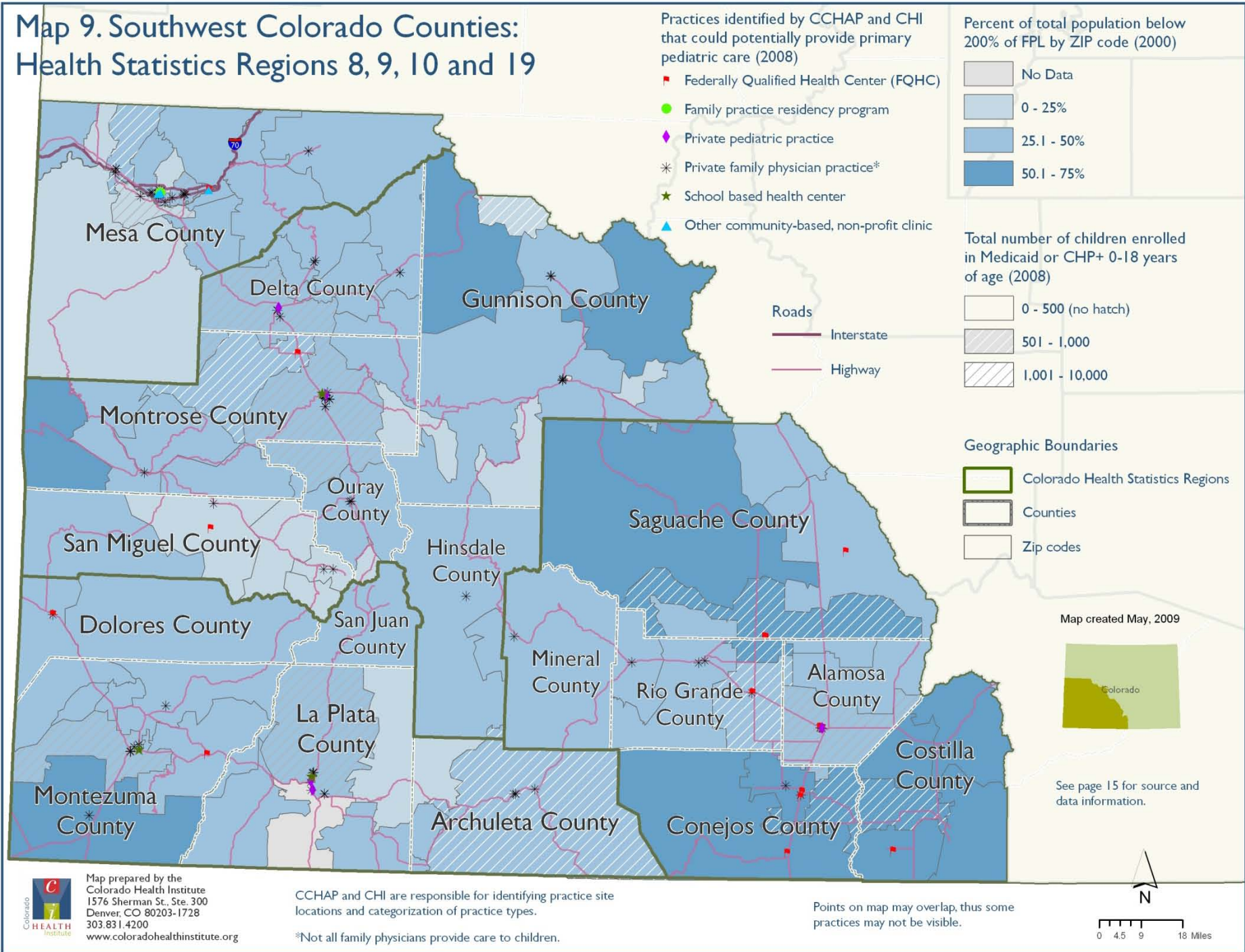


Table 2. County-level practice site, income and Medicaid/CHP+ enrollment data

	Practices identified by CCHAP that could provide primary pediatric care (2008)	Percent of total population below 200% of federal poverty (2000)	Total number of children enrolled in Medicaid or CHP+ 0-18 years of age (March 2008)	Total number of children enrolled in Medicaid 0-18 years of age (March 2008)	Total number of children enrolled in CHP+ 0-18 years of age (March 2008)
Colorado	1,928	24.2%	260,140	200,556	59,584
Adams	84	24.5%	34,477	26,197	8,280
Alamosa	7	45.2%	1,911	1,403	508
Arapahoe	167	16.9%	28,300	22,097	6,203
Archuleta	3	32.2%	733	509	224
Baca	4	45.0%	322	237	85
Bent	2	46.1%	6	NA	NA
Boulder	117	21.1%	8,792	6,710	2,082
Broomfield	5	NA	1,350	947	403
Chaffee	16	30.4%	655	418	237
Cheyenne	3	30.2%	126	89	37
Clear Creek	0	17.8%	277	213	64
Conejos	4	55.1%	1,161	810	351
Costilla	0	62.6%	381	300	81
Crowley	1	51.7%	353	258	95
Custer	1	36.9%	176	136	40
Delta	32	35.7%	2,030	1,480	550
Denver	306	33.3%	45,763	37,568	8,195
Dolores	0	36.2%	114	65	49
Douglas	52	6.5%	3,149	2,111	1,038
Eagle	21	20.2%	1,340	1,092	248
El Paso	199	22.6%	27,967	23,341	4,626
Elbert	1	13.6%	549	394	155
Fremont	36	32.8%	2,758	2,083	675
Garfield	20	23.1%	2,476	1,734	742
Gilpin	0	17.5%	126	104	NA
Grand	4	21.6%	399	267	132
Gunnison	18	35.7%	524	350	174
Hinsdale	1	29.1%	27	NA	NA
Huerfano	8	46.4%	618	491	127
Jackson	1	38.7%	84	56	NA
Jefferson	135	14.2%	16,126	12,124	4,002

	Practices identified by CCHAP that could provide primary pediatric care (2008)	Percent of total population below 200% of federal poverty (2000)	Total number of children enrolled in Medicaid or CHP+ 0-18 years of age (March 2008)	Total number of children enrolled in Medicaid 0-18 years of age (March 2008)	Total number of children enrolled in CHP+ 0-18 years of age (March 2008)
Kiowa	1	40.0%	103	79	NA
Kit Carson	6	35.7%	633	385	248
La Plata	37	29.9%	2,243	1,360	883
Lake	8	32.9%	467	351	116
Larimer	138	22.5%	12,047	8,408	3,639
Las Animas	11	45.9%	1,103	838	265
Lincoln	2	35.2%	322	256	66
Logan	11	33.4%	1,293	955	338
Mesa	59	31.7%	8,779	6,091	2,688
Mineral	0	29.5%	28	NA	NA
Moffat	9	28.7%	843	597	246
Montezuma	22	40.8%	2,132	1,489	643
Montrose	42	35.1%	3,428	2,200	1,228
Morgan	27	40.4%	2,030	1,526	504
Otero	14	45.3%	2,108	1,716	392
Ouray	3	24.7%	129	72	57
Park	4	17.3%	545	388	157
Phillips	4	38.8%	267	191	76
Pitkin	4	15.5%	121	74	47
Prowers	8	47.7%	1,681	1,277	404
Pueblo	133	36.7%	14,772	12,531	2,241
Rio Blanco	5	29.9%	261	188	73
Rio Grande	7	42.3%	1,518	1,130	388
Routt	26	18.5%	512	338	174
Saguache	0	55.7%	695	529	166
San Juan	0	38.2%	41	NA	NA
San Miguel	10	23.2%	200	130	70
Sedgwick	5	43.1%	137	99	38
Summit	6	22.8%	822	654	168
Teller	6	19.2%	902	602	300
Washington	2	35.6%	224	150	74
Weld	65	31.5%	15,968	11,804	4,164
Yuma	5	37.2%	716	511	205

Source and Data Information

This section describes the data sources used for maps 1-9 and Table 2.

PRACTICES IDENTIFIED BY CCHAP AND CHI THAT COULD POTENTIALLY PROVIDE PRIMARY PEDIATRIC CARE (2008)

Clinic addresses were collected from a variety of sources listed below. The address of each practice was standardized for consistency using geo-coding software. Each practice is categorized according to the following definitions.¹

- **Federally Qualified Health Centers (FQHC)**, also known as community health centers, are located in medically underserved or health professional shortage areas and provide preventive and primary physical, dental, mental care and substance abuse services to populations the federal government designates as medically underserved.² Locations were provided to the Colorado Health Institute by the Colorado Community Health Network in January 2009. www.cchn.org
- **Family practice residency programs** typically offer low-cost or sliding-fee primary care services to low-income and uninsured families and individuals. Such programs are staffed by attending physicians who supervise resident physicians while they are completing their residency requirements in the specialty of family practice medicine. Locations were provided to the Colorado Health Institute by the Colorado Association of Family Medicine Residencies in December 2008. www.cofammedresidencies.org
- **Private pediatric practices** include pediatricians who work in solo or group private practices and provide comprehensive primary care to infants, children and adolescents. Locations were identified and confirmed by the Colorado Children's Healthcare Access Program (CCHAP) using the Peregrine database in April 2008.
- **Private family physician practices** include physicians who work in solo or group private practices and provide comprehensive primary health care to children, adults and families. The goal of family practice medicine is to integrate biological, clinical and behavioral sciences. Locations were identified and confirmed by the Colorado Commission on Family Medicine using the Peregrine database in April 2008.
- **School-based health centers (SBHCs)** provide primary health care services in schools with high concentrations of low-income children. Colorado SBHCs offer immunizations, well-child checks, sports physicals, chronic care management for conditions such as asthma and diabetes, and acute medical care. Depending on the center, services may also include mental and dental care and substance abuse treatment services. Locations were provided to the Colorado Health Institute by the Colorado Association School Based Health Centers (CASBHC) in January 2009. www.casbhc.org
- **Other community-based, nonprofit clinics** are clinics that offer free or low-cost, sliding-fee primary care services to low-income and uninsured families and individuals. Many of these clinics are affiliates of ClinicNET, a nonprofit membership organization that advocates on behalf of its members.³ Locations were provided to the Colorado Health Institute by ClinicNET, in January 2009. www.clinicnet.org

PERCENT OF TOTAL POPULATION BELOW 200% OF FEDERAL POVERTY (2000)⁴

The federal poverty level is calculated based on family income relative to family size. In CY2000, 200 percent of the federal poverty level (FPL) was \$34,100 for a family of four. These data were tabulated by the U.S. Census Bureau at the request of CHI in March 2007.

TOTAL NUMBER OF CHILDREN ENROLLED IN MEDICAID OR CHP+ 0 -18 YEARS OF AGE (2008)

The number of eligible children enrolled in CHP+ and Medicaid was obtained from a January 30, 2008 data request from CHI to the Colorado Department of Health Care Policy and Financing. After receiving the data, CHI aggregated the number of children enrolled in Medicaid or CHP+ at the ZIP Code level.⁵

- **Medicaid** is a publicly financed health insurance program for low-income children and their very low-income parents, people with disabilities and elders. Low-income children are eligible for Medicaid if they are under the age of 6 and have family incomes at or below 133 percent of the FPL (In 2008, \$28,196 for a family of four). Children between the ages of 6 and 18 years qualify if they have family incomes at or below 100 percent of the FPL (In 2008, \$21,200 for a family of four). Parents are eligible for coverage if their income is at or below 60 percent of the FPL (In 2008, \$12,720 for a family of four).
- **The Child Health Plan Plus (CHP+)** program is a publicly financed health insurance program that provides coverage for low-income children 18 years of age and under as well as pregnant women not eligible for Medicaid. Children and pregnant women must have family incomes at or below 205 percent of the FPL. In 2008, 205 percent of the FPL was \$43,460 in annual income for a family of four.

ADDITIONAL NOTES

No data are available for ZIP Codes that were not established in 2000. Also, there were no 2000 census data available for Broomfield County as it was established in 2001.

¹ In some cases, individual providers within the same practice were identified separately and in some cases providers were grouped according to their practice location.

² For a full list of FQHCs and addresses, see <http://www.cchn.org/map.php> (last accessed April 21, 2009).

³ For more on ClinicNet, see <http://clinicnet.org/> (last accessed April 21, 2009).

⁴ These data were tabulated by the U.S. Census Bureau at the request of the Colorado Health Institute. For additional information regarding these data, see www.census.gov/hhes/www/poverty/definitions.html (last accessed April 21, 2009).

⁵ Those individuals who on March 3, 2008, were 19 years of age and older were excluded from the analysis to correspond to program eligibility guidelines for low-income Medicaid and CHP+ children. In order to obtain more uniform data, children without a current Colorado home address also were excluded.