

## Eye Examinations Surpass 1 Million Annually at Federally Qualified Health Centers But Rate of Increase in Doctors of Optometry Not Meeting Need

Many Federally Qualified Health Centers (FQHCs), which are defined as community-based health care facilities that receive funds from the Health Resources and Services Administration (HRSA) Health Center Program to provide primary care services in underserved areas<sup>i</sup>, have seized an opportunity by expanding primary services to include on-site primary eye care, according to federal data analyzed by the Health Policy Institute (HPI). Unfortunately, with such low doctor of optometry full-time-equivalent (FTE) numbers, this rate of increase will never meet the demand for services among vulnerable populations served by FQHCs.

### Highlights:

#### Growth

- *The number of eye examinations by eye doctors at health centers in 2019 surpassed +1 million annually, representing a +180.3% increase in health center eye examinations from 2014.*
- *A +114.7% increase in FTE doctors of optometry and a +181.1% increase in other vision care staff (2014-2019).*
- *31 states and territories increased optometry full-time equivalents (FTEs) at health centers.*

#### Need

- *The rate of optometry FTE growth from one year to the next has decreased each year from 2014 through 2019.*
- *The number of states adding optometry FTEs declined by 34% from 2018 to 2019, the most recent reporting period.*
- *Many states (15) have made little or no progress, having reported < 1.0 optometry FTE in 2019.*

Each year, health centers report on performance using the measures defined in the Uniform Data System (UDS). The UDS is a standardized reporting system that provides consistent information about health centers. This reporting action includes the capture and reporting of eye examination data, which is especially significant because high-risk populations served at health centers are most affected by uncorrected refractive error and untreated eye disease.<sup>iii</sup> HPI evaluated these UDS data (Table 1.0).

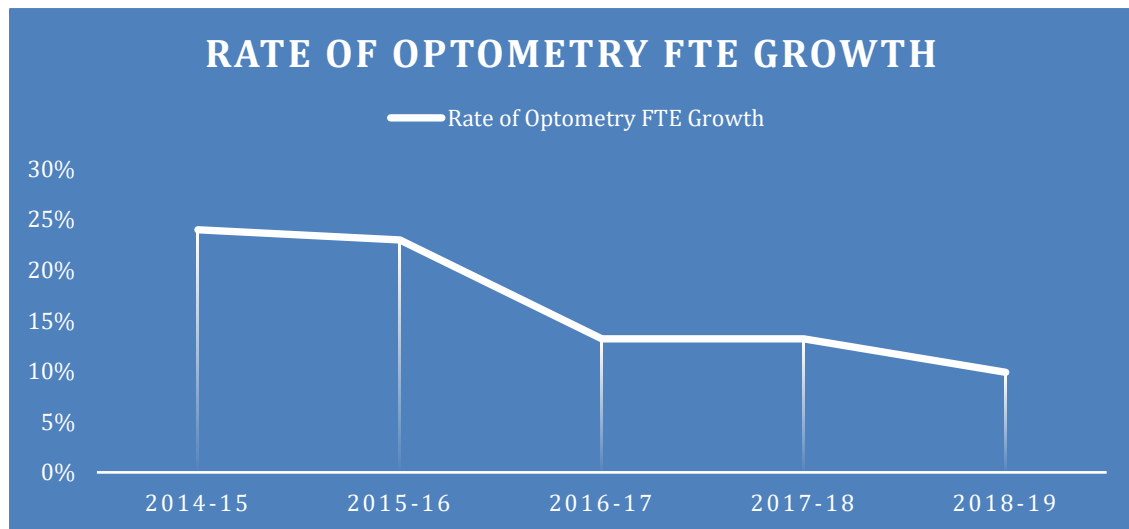
Table 1: Full Time Equivalent (FTE), Patient and Eye Examination Counts by Reporting Year

	2014	2015	2016	2017	2018	2019	% Change (2014-2019)
Doctors of Optometry	185.41	229.89	282.84	320.17	362.28	398.06	+114.7%
Ophthalmologists	39.34	46.66	39.55	42.88	45.11	46.74	+18.8%
Other Vision Care Staff	201.90	251.29	339.43	407.35	488.32	567.00	+181.1%
Number of Eye Care Patients	433,086	501,647	599,314	670,973	746,087	828,977	+91.4%
Number of Eye Examinations	389,506	462,256	563,652	888,648	996,691	1,091,770	+180.3%

Data Source: 2014, 2015, 2016, 2017, 2018, 2019 Uniform Data System (<https://bphc.hrsa.gov/datareporting/reporting/index.html>). Personnel measured by full time equivalents (FTEs). Eye exams = Current Procedural Terminology eye examination codes: 92002, 92004, 92012, 92014.

The number of patients provided vision care services in health centers increased by almost double (+91.4%), or 395,891 people, during those years, while the number of eye examinations surpassed more than 1 million annually at last count (2019). More health care professionals are providing eye and vision care services in health centers, including a +114.7% FTE increase in doctors of optometry from 2014 to 2019. Unfortunately, with such low FTE numbers this rate of increase will never meet the demand for services among these vulnerable populations. In fact, the rate of FTE growth decreases from one year to the next, each year from 2014 through the 2019 reporting periods (Table 2.0).

Table 2.0 % Growth of FTE Optometry at Health Centers Nationwide



Data Source: 2014, 2015, 2016, 2017, 2018, 2019 Uniform Data System (<https://bphc.hrsa.gov/datareporting/reporting/index.html>). Personnel measured by full time equivalents (FTEs).

Overall, 31 states and territories increased optometry full-time equivalents (FTEs) at health centers (Table 3.0). Unfortunately, these data reveal that the number of states adding optometry FTEs declined by 34% from 2018 to 2019. While onsite vision care is expanding at some health centers, many centers remain without any onsite primary eye care. Many states (Arizona, Arkansas, Delaware, Iowa, Maryland, Montana, Nebraska, Nevada, North Carolina, Oregon, South Dakota, Tennessee, Wyoming, Washington, DC) have made little or no progress; adding none and having no optometry FTEs from 2013 to 2019. (Table 3.0)

Table 3.0:  
2013-2019 FTEs at Health Centers

State	2013	2016	2019
Alabama ◊ ●	3.78	5.21	8.52
Alaska ◊	0.79	3.84	6.5
Arizona ●	0.00	0.52	0.14
Arkansas	0.00	0.48	0.00
California ◊ ●	38.49	76.91	124.23
Colorado	0.00	1.34	1.53
Connecticut	1.17	3.63	1.44
Delaware	0.00	0.07	0.00
Florida ●	3.07	11.18	11.21
Georgia ◊	0.93	2.81	4.79
Hawaii ◊	1.00	3.25	6.33
Idaho ◊	0.00	0.73	2.00
Illinois ●	3.59	4.64	2.60
Indiana ◊ ●	0.00	2.55	7.61
Iowa	0.00	0.20	0.25
Kansas ◊	0.75	1.80	3.53
Kentucky ◊ ●	0.00	1.43	3.56
Louisiana	0.96	0.91	1.00
Maine ◊	0.00	0.59	4.56
Maryland	0.00	0.09	0.00
Massachusetts ◊ ●	25.56	38.14	55.02

State	2013	2016	2019
Nebraska	0.00	0.11	0.01
Nevada	0.00	0.00	0.00
New Hampshire	0.00	0.24	1.00
New Jersey	1.23	2.59	1.07
New Mexico	0.00	0.48	1.00
New York ◊ ●	32.51	42.78	44.32
North Carolina	0.00	0.26	0.15
North Dakota	0.00	0.73	1.00
Ohio ◊ ●	2.76	8.83	17.43
Oklahoma ◊ ●	2.02	3.68	7.51
Oregon ●	0.00	0.09	0.11
Pennsylvania ◊ ●	0.00	0.98	3.55
Rhode Island ◊	0.00	1.87	2.89
South Carolina	0.00	1.76	2.10
South Dakota	0.00	0.30	0.20
Tennessee ●	0.00	0.28	0.00
Texas ●	9.86	13.85	13.05
Utah	0.00	1.11	1.37
Vermont	0.00	2.35	1.00
Virginia	0.00	2.35	1.09
Washington ◊	2.37	6.25	9.52

Michigan ◊ ●	5.20	2.37	14.13
Minnesota ◊	1.19	3.01	7.21
Mississippi ◊	0.00	2.12	3.84
Missouri ●	1.02	5.58	5.50
Montana	0.00	0.09	0.00

West Virginia ◊	0.73	1.92	4.55
Wisconsin	2.46	2.91	1.04
Wyoming	0.00	0.03	0.00
Washington, DC	1.08	2.33	0.29
Puerto Rico ◊ ●	N/A	0.18	7.85

◊ = State FQHC Increase of Optometry FTEs  $\geq$  1.00

● = State with  $\geq$  1 School or College of Optometry

These data show most of the gain was in California with a +85.74 FTE optometry gain at FQHCs from 2013 to 2019. In fact, just three states—California, New York and Massachusetts—together account for 43.8% of all the optometry FTEs. Especially noteworthy is that these states all have an accredited school or college of optometry, supportive of delivering vision and eye health care to vulnerable health center populations. In a previous report, HPI highlighted those states/territories (i.e. Arizona, Tennessee, Pennsylvania, Oregon and Puerto Rico) with an accredited school or college of optometry, high rates of diabetes, and less than 1.0 optometry FTE serving patients at health centers in their respective state/territory. HPI now reports that Puerto Rico and Pennsylvania have together added +11.4 FTEs for optometry, accounting for +68.1% of the total national FTE optometry growth from 2018 to 2019.

### **Importance of these data**

According to 2018 UDS, diabetes poses a unique challenge for the HRSA Health Center Program because one of seven patients has diabetes and nearly one in three of those patients with diabetes has uncontrolled diabetes.<sup>iv</sup> Diabetes complications include, among others, both vision and oral complications, and annual dental and eye examinations are a recommended clinical preventive strategy.<sup>v</sup>  
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Primary eye care services accounted for only 0.77% of total clinic visits to health centers in 2016, compared to dental services accounting for 13.85% of total clinic visits. This incongruity in health care professionals and utilization of services signals a substantial under-investment in resources for patients in need of vision care, particularly those more than 2 million with diabetes. For example, 2016 UDS data describe 4,474.48 FTE dentists at health centers nationwide, 15 times the number of FTE doctors of optometry nationwide.

Increasing on-site primary eye care speaks directly to the primary care mission and demographics of health centers by serving as a catalyst for improving health outcomes for millions of Americans of all ages, receiving care at health centers. People of Hispanic (35.42% health center population) and Black/African descent (19.47% health center population) are more than twice as likely as Caucasians to go blind from diabetic retinopathy and glaucoma.<sup>viii</sup> ix Children of racial/ethnic minorities have increased rates of refractive error<sup>x</sup> and low-income children are more likely to go without eyeglasses, due to cost barriers and poor access to care.<sup>xi</sup>

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*Expansions of optometry FTEs would reduce complications of diseases while also helping identify individuals who have gone undiagnosed, allowing treatments to begin during the early most treatable stages of disease.*

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For example, Medicare, Medicaid and most commercial plans cover eye examinations for patients with diabetes, sometimes without any patient cost sharing. In addition to annual dilated retinal evaluations,

comprehensive eye exams uncover other ocular comorbidities and can help about 65% of those with vision loss through the provision of appropriate eyeglasses.<sup>xii</sup>

A National Academies of Science, Engineering and Medicine (NASEM) report highlights this lack of access to vision care as a serious and costly national problem. The report distinguishes that avoidable vision impairment “occurs because of outdated assumptions, missed opportunities and shortfalls in public health policy and health care delivery in the U.S.” NASEM also determined that “promoting optimal conditions for vision and health can positively influence many social ills, including poverty.”<sup>xiii</sup> Fortunately, nearly all children served by health centers have coverage for eye exams and necessary treatments through Medicaid, Children’s Health Insurance Program (CHIP) or another health plan as an essential pediatric benefit from birth through age 19. Providing ready access for comprehensive eye exam services, on-site at health centers, is most important for children’s learning, social development and high school matriculation.<sup>xiv xv</sup>

These UDS data provide evidence of growth of optometry services in FQHCs as well as the urgent need for continued efforts to expand optometry FTEs and vision care at health centers, to allow equitable access to comprehensive eye exams for all populations. The 5-year trend of provider expansion describes a troublesome slowdown. These data describe slower movement in a positive direction toward the catchment population’s increasing need for improved access to eye care providers and the comprehensive services they offer.

HRSA, among others, provides funding for centers interested in this needed optometry expansion and should better target health center funding and technical support services to add to the positive and reverse this incipient slowdown trend in order to support the vision and eye health of vulnerable populations. Optometry expansion will additionally create a model framework to allow health care teams to be better coordinate care and be more responsive to the provision of patient centered care, all the while building community sustainability that will drive sustainable institutions to invest in the community.<sup>xvi</sup>

## References:

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<sup>iv</sup> <https://aoa.uberflip.com/i/1183026-evidence-based-clinical-practice-guideline-eye-care-of-the-patient-with-diabetes-mellitus-second-edition/0?m4=>

<sup>v</sup> Ana Neumann, DDS, MPH, PhD; Evaluating quality of dental care among patients with diabetes Adaptation and testing of a dental quality measure in electronic health records, *JADA*, September 2017 Volume 148, Issue 9, Pages 634–643

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