

## Critical Access Pharmacy Programs

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Access to pharmacy services is a critical component of the public health infrastructure, with pharmacies not only providing life sustaining medications, but serving as an access point for health information, clinical pharmacy services (e.g. medication therapy management), preventative care (e.g. immunizations), and public health campaigns. Despite provision of these essential services, pharmacy closures continue to threaten the public health, especially in vulnerable communities. Through a review of the literature and independent analysis of the pharmacy landscape in Oregon, we developed a revised framework for CAPs in Oregon that preserves pharmacy access, addresses health disparities, and promotes health equity across the state. This newsletter will discuss expanding the critical access pharmacy (CAP) program to preserve pharmacy access for communities, reduce health disparities, and promote health equity across Oregon.

### The Current State of Pharmacy Access

The pharmacy sector currently faces many challenges that contribute to pharmacy closures, like reduced reimbursement rates, , lack of reimbursement for clinical pharmacy services, and competition from mail order pharmacies.<sup>1</sup> These challenges have led to a national trend of pharmacy closures that disproportionately affects rural, low-income, and minority communities.<sup>2</sup> Nationally, one in eight pharmacies closed between 2009 to 2015<sup>3</sup>, with a disproportionate number of pharmacy closures occurring in rural areas and among independent pharmacies.<sup>2,4</sup> Pharmacy closures are more likely to occur in segregated Black and Hispanic/Latino neighborhoods in comparison to white neighborhoods.<sup>2</sup> Additionally, pharmacy closures were more common in low-income and medically underserved areas, specifically when these areas are comprised of minority communities.<sup>2</sup> As low income and non-white communities have increased risk of chronic disease, pharmacy closures can have significant effects on health outcomes, including adherence to medications and access to immunizations.<sup>4</sup>

These high rates of pharmacy closures contribute to the growing number of pharmacy deserts. While there is no standardized definition of a pharmacy desert, this term is modeled after food deserts and incorporates both low access to community pharmacies and social determinants of health (e.g. percentage of the community living below the poverty level).<sup>5</sup> Trends in pharmacy deserts mirror those of pharmacy closures. In the 30 most populated cities in the United States (which includes Portland, Oregon), pharmacy deserts were more common in Black and Hispanic/Latino neighborhoods in

comparison to white neighborhoods.<sup>2</sup> Socioeconomic factors also played an important role in the development of pharmacy deserts. Not only are low-income communities more likely to be considered a pharmacy desert<sup>6</sup>, but low-income minority neighborhoods were more likely to be classified as a pharmacy desert in comparison to low-income white neighborhoods.<sup>2</sup>

Oregon has distinguishing features within its population and geography that may impact pharmacy closures. Ten of the thirty-six counties in Oregon are considered frontier counties<sup>7</sup>, eighty-six percent of the state is classified as rural geography<sup>8</sup>, and one-third of the population lives in rural or frontier areas.<sup>7</sup> In addition, health disparities are known to disproportionately affect minority communities in Oregon, with native American populations maintaining some of the highest rates of chronic disease.<sup>9</sup> These populations remain exceptionally vulnerable to pharmacy closures. Despite similarity to national trends, limited information regarding pharmacy closures and pharmacy deserts in Oregon exist. Recently, multiple locations of chain pharmacies have closed around the state as part of company downsizing or going out of business,<sup>10,11</sup> and two independent pharmacies (including one that was designated as critical access pharmacy) has closed. These closures highlight the vulnerability of communities within Oregon to pharmacy closures.

### Critical Access Pharmacies in Oregon

The CAP program in Oregon is one way to combat developing issues in pharmacy access, as CAPs receive preferred reimbursement rates from the Oregon Prescription Drug Program (OPDP). Oregon Administrative Rules, Chapter 431, Division 112, currently defines a CAP as “a pharmacy in Oregon that is further than a ten-mile radius from any other pharmacy. If one CAP’s ten-mile radius intersects with that of another CAP, both shall be considered a CAP if either CAP’s closure could result in impaired access for rural areas.”<sup>12</sup> To address known gaps in health equity and ensure access to healthcare services in all areas in the state, the Oregon Health Authority has developed new Administrative Rules for CAPs, based on an independent data analysis of pharmacies in the state.

Investigators from the Oregon Health Authority and Yale School of Public Health completed the first analysis of the pharmacy landscape in Oregon, with the goal of identifying pharmacies at greatest risk of closure. An emphasis was

placed on independent community pharmacies, pharmacies in low-income areas, and pharmacies in rural areas, as these pharmacies are at greatest risk of closing and reducing pharmacy access for Oregonians.<sup>1,2</sup> Pharmacies were classified by their population density, geolocated into their census tract, and classified by the poverty status of the census tract (classified as high poverty census tract (HPCT), possible high poverty census tract (PHPCT), or less than 1 mile to a HPCT or PHPCT). (Proximity to public transportation is also provided.) 148 pharmacies underwent full assessment: 10 in frontier counties, 66 in rural zip codes, and 72 in urban zip codes. A summary of the results of the data collection are seen in **Table 1**. In frontier counties, half of the pharmacies were not in HPCTs or PHPCTs, however a majority of pharmacies were in or near (less than 1 mile away from) a HPCT or PHPCT in both rural and urban areas. Based on these findings, we set out to establish a framework for the CAP program that protects the pharmacies most vulnerable to closure, preserving access for all Oregonians and advancing health equity in the state.

**Table 1: Poverty Status by Zip Code/County Classification**

	Frontier (n= 10)	Rural (n = 66)	Urban (n = 72)
Proximity to HPCT	Pharmacy number	Pharmacy Number	Pharmacy Number
In HPCT	1	15	20
In PHPCT	4	23	6
<1 mile from HPCT	0	4 (all near public transportation)	18 (15 near public transportation)
<1 mile from PHPCT	0	7 (2 near public transportation)	17 (15 near public transportation)
Outside parameters (≥1 mile from HPCT)	5	17	11
Abbreviations: HPCT = high poverty census tract; PHPCT = possible high poverty census tract			
Key: Frontier County: A county with a population density of six or fewer people per square mile <sup>7</sup> Rural Zip Code: a geographic area that is ten or more miles from a population center of 40,000 people or more <sup>7</sup> Urban Zip Code: a geographic area that is less than ten miles from a population center of 40,000 people or more <sup>7</sup>			

**Changes to Administrative Rules**

This data, along with feedback from key stakeholders on the Rules Advisory Committee (RAC), was used to inform a new framework for CAPs in Oregon. This framework is outlined in

**Table 2** and details parameter based on population density (frontier, rural, or urban, based on Office of Rural Health criteria). Because pharmacies provide access to both medication and healthcare services, it was determined that CAP pharmacies must be public facing and must provide both immunizations<sup>13</sup> and either pharmacist protocol-based prescribing<sup>14</sup> or medication therapy management services,<sup>15</sup> as permitted by Oregon law. To support independent pharmacies that are at the greater risk of closing, CAP designation is reserved for pharmacies with Oregon-based ownership. In alignment with OHA’s goal of eliminating health disparities by 2030<sup>16</sup> and to address known health disparities, pharmacies serving Native American reservations will qualify for CAP designation.

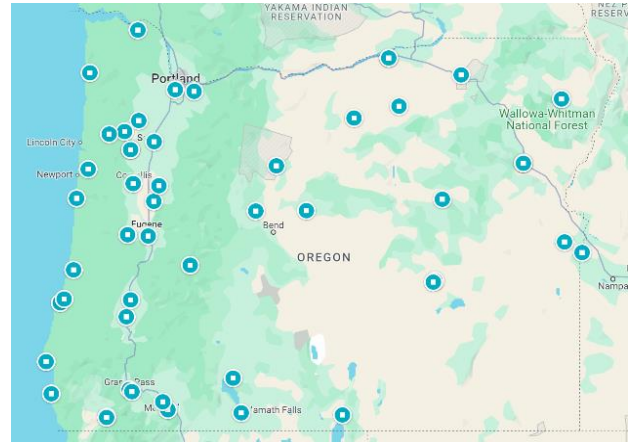
In order to protect pharmacy access in frontier counties, CAP status will be extended to all pharmacies in a frontier county if the county has three or fewer pharmacies (in addition to the existing criteria). Rural communities face similar challenges. In addition to the current criteria, if a pharmacy meets the requirements for clinical services and ownership, they will be granted CAP status if they are located in a high poverty census tract. Finally, urban pharmacies are also at risk of closing. Since the current criteria will exclude urban pharmacies, CAP status will be granted to those pharmacies who are the only pharmacy in the census tract. In addition, the director of the Oregon Prescription Drug Program may approve pharmacies in urban areas to be considered CAPs at their discretion (based on factors affecting pharmacy access). Additional details about loss of CAP status and the frequency of re-evaluation of CAP eligibility was added based on feedback from the RAC.

**Table 2: New Critical Access Pharmacies Criteria**

All locations	<ul style="list-style-type: none"> <li>Pharmacies must have Oregon-based ownership and be public facing to be eligible for CAP designation</li> <li>Pharmacies must offer clinical pharmacy services (defined as immunizations AND pharmacist protocol-based prescribing OR medication therapy management) to be considered a CAP</li> <li>All pharmacies on tribal lands or serving tribal communities will be designated as a CAP</li> </ul>
Frontier counties	<ul style="list-style-type: none"> <li>Continue with current distance-based definition (pharmacies that are further than a ten-mile radius from any other pharmacy qualify as a CAP; if one CAP’s ten-mile radius intersects with that of another CAP, both shall be considered a CAP if either CAP’s closure could result in impaired access for rural areas)</li> <li>If a frontier county has less than or equal to 3 pharmacies, all pharmacies in the county will be considered a CAP as long as it meets the</li> </ul>

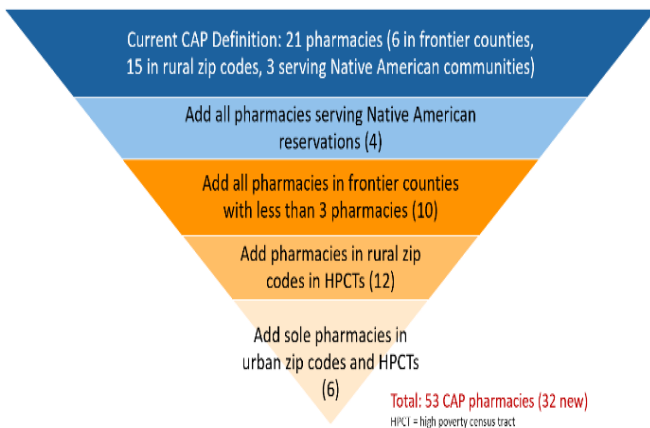
	criteria previously specified for clinical services (regardless of ownership location)
Rural Zip Codes	<ul style="list-style-type: none"> <li>Continue with current distance-based definition (see above); If the above distance-based criteria is not met, a pharmacy in a rural zip code may be considered a CAP if it meets the previously specified criteria for clinical services AND has Oregon-based ownership AND is located in a high-poverty census tract</li> </ul>
Urban Zip Codes	<ul style="list-style-type: none"> <li>If a pharmacy has Oregon-based ownership and is the sole pharmacy in a high poverty census tract OR per the discretion of the director of the Oregon Prescription Drug Program (OPDP)</li> </ul>
Additions (from RAC)	<ul style="list-style-type: none"> <li>Add timelines for assessment (pharmacies will be assessed quarterly to determine if they meet criteria)</li> <li>Add runway for CAP status (if CAP designation lost, reimbursement rates will revert to non-CAP rates after 6 months)</li> </ul>

pharmacy services through these criteria will positively affect the health of all Oregonians, regardless of the area of the state they reside. This will lead to improved access to medications, immunizations, clinical pharmacy services, and public health programs.



**Figure 2: Map of Critical Access Pharmacies Under New Framework**

**Figure 1: CAP Designations Under Proposed Rule Changes**



**Conclusion**

Preserving access to pharmacies is vital to the health of communities. Based on a literature review, the first data regarding pharmacy access in Oregon was collected and analyzed. A framework that incorporated population density, proximity to other pharmacies, and social determinants of health was developed and implemented through the Oregon Administrative Rules.

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Implementing these criteria will expand the number of CAPs in Oregon from 21 to 53. The breakdown of CAPs based on the criteria can be found in **Figure 1** and the geographic location can be found in **Figure 2**. These rule changes protect CAP status for current CAPs (21) and promote health equity by the inclusion of all pharmacies serving Native American communities (4). In addition, pharmacies in frontier counties (10) and some high poverty areas (a social determinant of health/SDOH) now qualify as CAPs (12 in rural zip codes and 6 in urban zip codes), protecting pharmacy access in communities most vulnerable to a pharmacy closure. Urban pharmacies may also be added at the discretion of the OPDP (not included in the figures). Expanding the number of CAPs by promoting clinical

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