

MISSION Act of 2018 Section 401: Underserved VAMCs

PRIMARY CARE: FY22 Model Explanation + Rankings

MISSION Act of 2018 Section 401: Underserved VAMCs	1
COVID IMPACT.....	2
NOTABLE IMPROVEMENTS	2
NON-NUMERICAL WEIGHTS.....	3
VARIABLE DEFINITIONS	4

COVID IMPACT

The COVID-19 pandemic significantly altered health care delivery. Non-emergent care was delayed (sometimes leading to backlogs later) and virtual care modalities became critical. This impacted both Veteran demand for care and VHA supply of care. In other words, the data during this time were volatile. As such, the FY22 run of the underserved primary care model does not use data from the COVID-19 period (February 2020 – June 2021). This exclusion helps to ensure that all model components are validated and appropriately measured. The model **does** include FY21Q4 data as analyses suggest this is when supply of and demand for care reasonably rebalanced after the brunt of the pandemic.

The FY22 list of underserved facilities should be considered within the context of COVID-19.

NOTABLE IMPROVEMENTS

Each year, we strive to produce the best underserved model we can – accurate and effective at measuring underservedness. Thus, each year, we make improvements based on empirical assessment and feedback from local and national stakeholders. Below are the main improvements made ahead of the FY22 run.

Adjust clinic time by enrollees – An approach taken in previous models, we revert back to measuring each facility’s clinic time per Veteran enrollee, rather than measuring clinic time and number of enrollees as two separate variables (as we did in FY21). This ensures no bias against smaller facilities.

New data source for demand variables – We now collect most demand data from the Survey of Enrollees to ensure we use the most granular and frequently updated data possible.

Modified nomenclature – In line with the Office of Primary Care’s established terminology, we revised how we discuss VHA supply of care, substituting “clinic time” for “clinic capacity” and “clinic work rate” for “clinic efficiency”

Include wait time adjustment – To account for nuances in local access, we now incorporate raw wait times into our methodology. After ranking facilities using our model output, we also rank facilities by raw wait times. The final underserved rankings incorporate both. This ensures that facilities identified to Congress as underserved are flagged by both our statistical modeling and observed wait times.

NON-NUMERICAL WEIGHTS

The underserved model produces numerical weights that describe the relative impact of each variable on the underserved score. These numerical weights are very technical, so non-numerical weights were developed to explain each variable's influence on the underserved scores more simply. The numerical weights were translated into three non-numerical weight categories: low, medium (med), and high. These are absolute value categories based on the magnitude of influence and do not demonstrate the direction of influence. For this reason, a positive or negative sign is included to explain whether the variable positively or negatively impacts the underserved score.

VARIABLE	NON-NUMERICAL WEIGHT
Clinic time per enrollee (physician/APP)	- HIGH
Established patient scheduling (>90 days in advance)	+ HIGH
Primary care community care visit volume per enrollee	- HIGH
Veteran demand (composite score)	+ HIGH
Clinic work rate (physician/APP)	- MED
Clinic time per enrollee (non-physician/non-APP)	+ MED
PACT panel size	+ LOW
PACT return visit rate	- LOW
Mental health program complexity	- LOW
ICU/surgical program complexity	- LOW
Complex clinical program complexity	- LOW

VARIABLE DEFINITIONS

The final scores and rankings are based on several independent variables that each have a unique influence on the model and scores. Some increase a VAMC's likelihood of being underserved while others reduce it.

VHA Supply Variables

These variables measure the supply of VHA care available at a VAMC. They are policy levers local management can use to improve access for Veterans.

1. **Clinic work rate (physician/APP)** – This variable measures the total number of clinic encounters per day of clinic time (as defined below in #2) for physicians and advanced practice providers (APPs).
 - a. The clinic work rate is used to estimate a VAMC's ability to provide health care to its enrollees. An important element of clinic operations, it mediates the relationship between clinic inputs (e.g., staffing) and total encounters produced by the clinic. This measure includes all in-person, virtual, scheduled, and unscheduled care provided by a physician or APP. It is based on provider-level observed data (as opposed to reported data) but is aggregated to the clinic level in the model.
2. **Clinic time per enrollee (physician/APP)** – This variable measures the total provider availability per Veteran enrollee at each VAMC for physicians and APPs.
 - a. Clinic time is used to estimate a VAMC's ability to provide health care to its enrollees. This measure accounts for all physicians and APPs who generate workload in primary care clinics and incorporates in-person, virtual, scheduled, and unscheduled care. It is based on provider-level observed data (as opposed to reported data) but is aggregated to the clinic level in the model.
3. **Clinic time per enrollee (non-physician/non-APP)** – This variable measures the total provider availability per Veteran enrollee at each VAMC for non-physician/non-APP members of the PACT teams.
 - a. Clinic time is used to estimate a VAMC's ability to provide health care to its enrollees. This measure accounts for all non-physician and non-APP staff who generate workload in primary care clinics (nurses, social workers, clinical pharmacists, psychologists, and dieticians) and incorporates in-person, virtual, scheduled, and unscheduled care. It is based on provider-level observed data (as opposed to reported data) but is aggregated to the clinic level in the model.
4. **Established patient scheduling** – This variable measures the percentage of established patient visits scheduled 90 days or more in advance.
 - a. Established patient scheduling practices directly influence new patient wait times. A high proportion of established patient visits scheduled well in advance suggests there are fewer appointments available for new patients.

5. **Primary care community care visit volume per enrollee** – This variable measures the number of primary care community care visits purchased by VHA facility per Veteran enrollee.
 - a. Under the MISSION Act, Veterans are eligible to use community care under certain circumstances. The number of community care visits a VAMC purchases for Veterans who might otherwise rely on VHA providers, may influence the availability of those providers to serve other patients.
6. **PACT panel size** – This variable measures the average number of Veterans assigned to a VAMC’s PACT teams.
 - a. PACT teams employ a multidisciplinary team-based approach to providing primary care and are assigned a specific number of Veterans to serve (a panel). The size of a VAMC’s PACT panels may impact access for new patients.
7. **Return Visit Rate** – This variable measures the frequency with which a primary care clinic’s patient population returns for appointments each year.
 - a. The frequency at which established patients return to clinic for follow-up visits influences clinic access for new patients. The return visit rate measures the average number of completed visits per year for a primary care clinic’s patients.
8. **Mental health program complexity** – This variable calculates the complexity of the mental health (MH) services provided at a VAMC.
9. **ICU/surgical program complexity** – This variable calculates the availability and complexity of both ICU care and surgical care provided at a VAMC.
10. **Complex clinical program complexity** – This variable calculates the number of complex clinical programs provided at a VAMC.

Veteran Demand Variables

These variables impact Veteran demand for VHA care. Local management teams have little control over these factors. Instead, they provide context within which managers can assess the appropriate amount of supply needed to care for their Veterans. They also “level the playing field” by ensuring we account for local differences in reliance when measuring underservedness.

1. **Veteran demand (composite)** – The variable is a composite measure of Veteran demand for primary care at a facility. Many factors influence a Veteran’s likelihood to rely on VHA for care. The individual variables included are below.
 - a. *Alternative health insurance coverage and availability* – This variable measures the percentage of a VAMC’s enrolled Veteran population with private health insurance or coverage under another government-sponsored health plan.
 - b. *Average drive time to primary care* – This variable measures the average drive time to a VHA facility that offers primary care for a VAMC’s enrolled population.
 - c. *Medicare Advantage community penetration rate* – This variable measures the percentage of eligible individuals who have Medicare Advantage coverage in the area surrounding a VAMC.

- d. *Veteran enrollee demographics* – These are characteristics of the Veteran population in the facility area such as age, race/ethnicity, gender, and marital status.
- e. *Veteran enrollee income* – This variable measures the average income of a VAMC’s enrolled Veteran population.
- f. *Veteran enrollee employment* – This variable assesses the rate of employment (full-time and part-time) for a VAMC’s enrolled Veteran population.
- g. *CMS-HCC Risk Score* – This variable estimates the medical complexity of a Veteran to predict the amount of health care s/he will likely need.
- h. *Zillow Home Value Index* – This variable indicates areas throughout the country where median home values are increasing or decreasing.
- i. *HPSA score* – This variable identifies Health Provider Shortage Areas (HPSA), geographical areas with an insufficient number of providers based on population size and an overutilization or inaccessibility of existing providers.