Health & Human Services (HHS)/Veterans Health Administration Office of Rural Health (VHA, ORH) Collaboration Using GIS to Expand Care to Rural Veterans

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**Background**

- It is very common for Veterans who use Veteran Health Administration (VHA) services to also use non-VHA services for additional, supplemental or in lieu of VHA services. These Veteran patients are referred to as “Dual Users”.
  - Often these Veterans are older and eligible for Medicare or, if they are low-income, they may use Medicaid
  - Dual use can be convenient for Veterans
    - For example: They may receive specialty care for service-connected injury at the VHA (which may be at a distance) and for all other primary care they use a non-VHA provider using alternate coverage in their community (short distance)
    - Rural Veterans’ reasons for using Non-VHA care are generally geared toward burdens in travel, while Urban Veterans' reasons can be related to not being able to obtain continuous primary care due to shortages of providers in their immediate community.

Background (continued)

– Regardless of the reasons for obtaining care both in and outside the VHA System, *dual use* can also (and most likely) lead to negative outcomes as well:
  • Interruptions in continuum of care
  • Duplicative treatment & services
  • Duplicative procedures,
  • Duplicative tests
  • Duplicative prescriptions of medications.

– Lack of proper communication between Community & VHA providers
  • Proper communication between patients and their providers is also key
Purpose

• ORH partnered up with HSS Office of the National Coordinator
  – Increase opportunities for electronic health information exchange between health care providers for “dual user” Veterans
    • Select up to 10 sites from around the country that serve rural Veteran dual users.

• Requested Layers/Parameters (Maps by State)
  – VA health care facilities
  – Critical Access Hospitals
  – Federally Qualified Health Centers
  – Rural Health Clinics
  – Indian Health Services
  …
Purpose (continued)

- Military Treatment Facilities
- Community Hospitals
- Rural/Highly Rural Veteran patient population density raster
  - Patients 65+ (Medicare Eligible)
  - Patients with SC indicating that they are Medicaid eligible
- Broadband Coverage
Methods

• We used raster files of VHA patients (Count by ZIPs) meeting the aforementioned parameters in the areas of interest (AOI) to display the data and to identify where patients were clustered, as well as to determine whether or not the capacity for Broadband existed in the AOIs.

• Location-allocation analysis determined which hospitals, VHA and non-VHA served the largest number of potential dual-using Rural & Highly Rural patients
  – Specifically, which non-VHA Facilities were near VHA-Facilities that covered high numbers of Rural & Highly Rural patients
Findings/Conclusions

• GIS enables strategic targeting of clusters best served by HIE programs.
• Location-Allocation tools allow for best-case scenarios of the placement of Pilot Health Information Exchange Programs in the community
Impact

• Effective HIE mechanisms will improve access and coordination of care when strategically placed in non-VHA facilities that VHA patients are likely to attend for primary and specialty care.

• Additional analyses were conducted in other states where Health & Human Services facilities and VHA were looking to partner.
  – Pilot sites were chosen based on location, technological requirements met, and likelihood of VHA Patients attendance.

• With better communication between VHA Providers, community providers and patients, the coordination of care will be more comprehensive and less duplicative, leading to better health outcomes.