

Underrepresentation of Health Information Exchange in Rural Medicine

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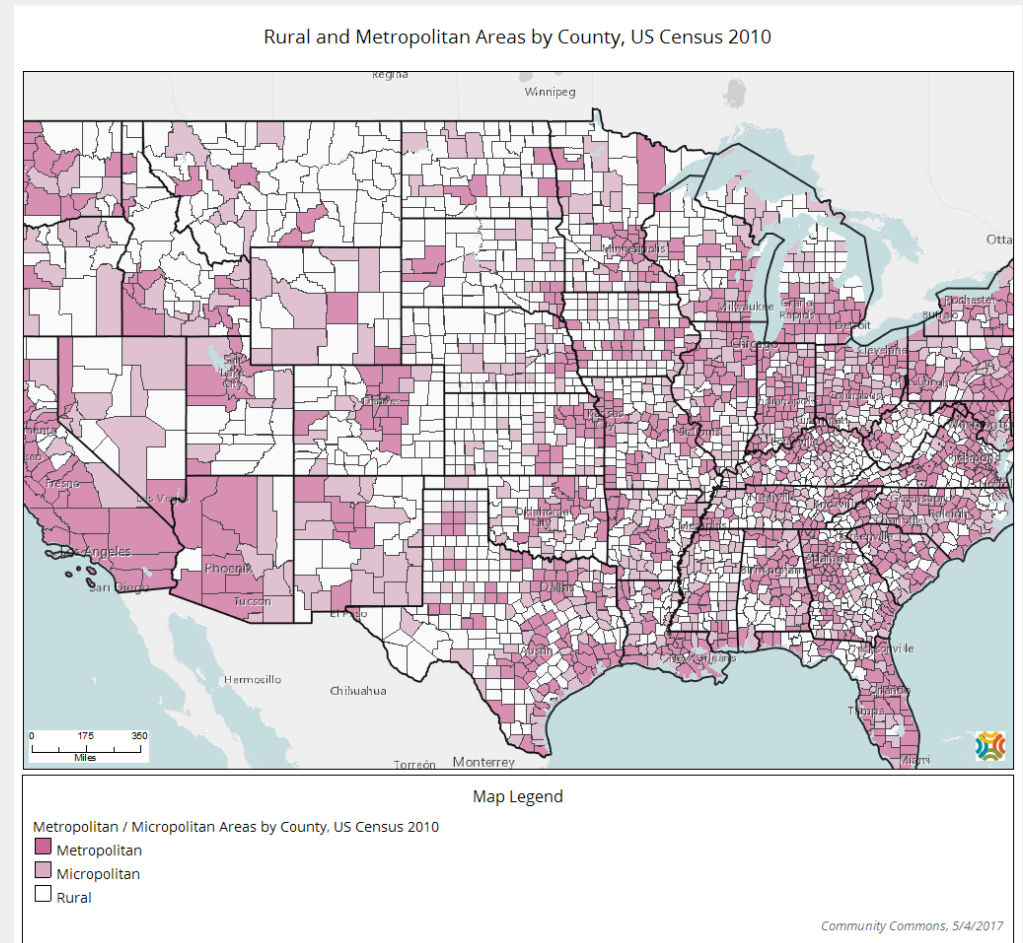
Background

Rural Medicine
Health Information Technology
Health Information Exchange

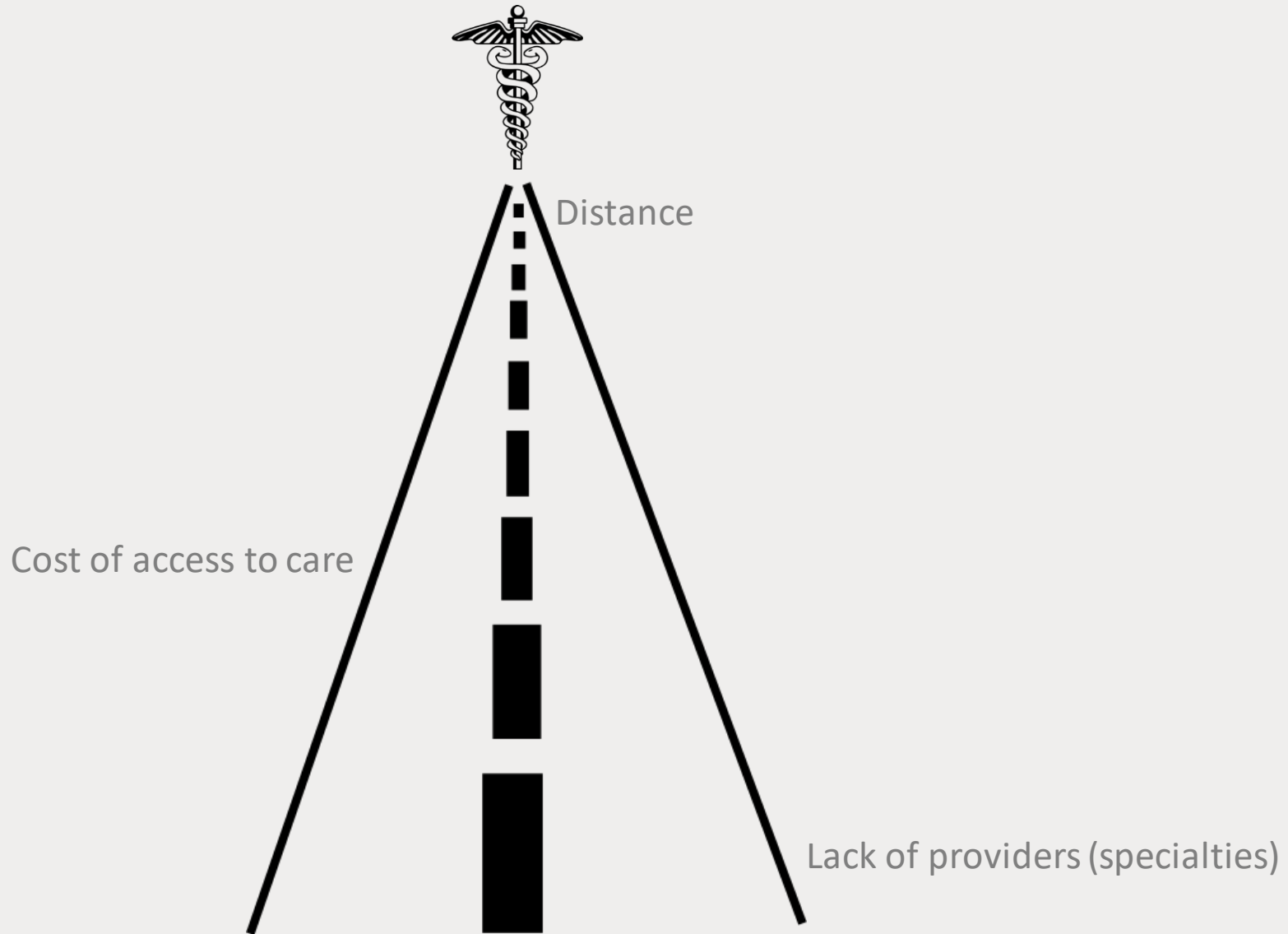


Urban vs. Rural

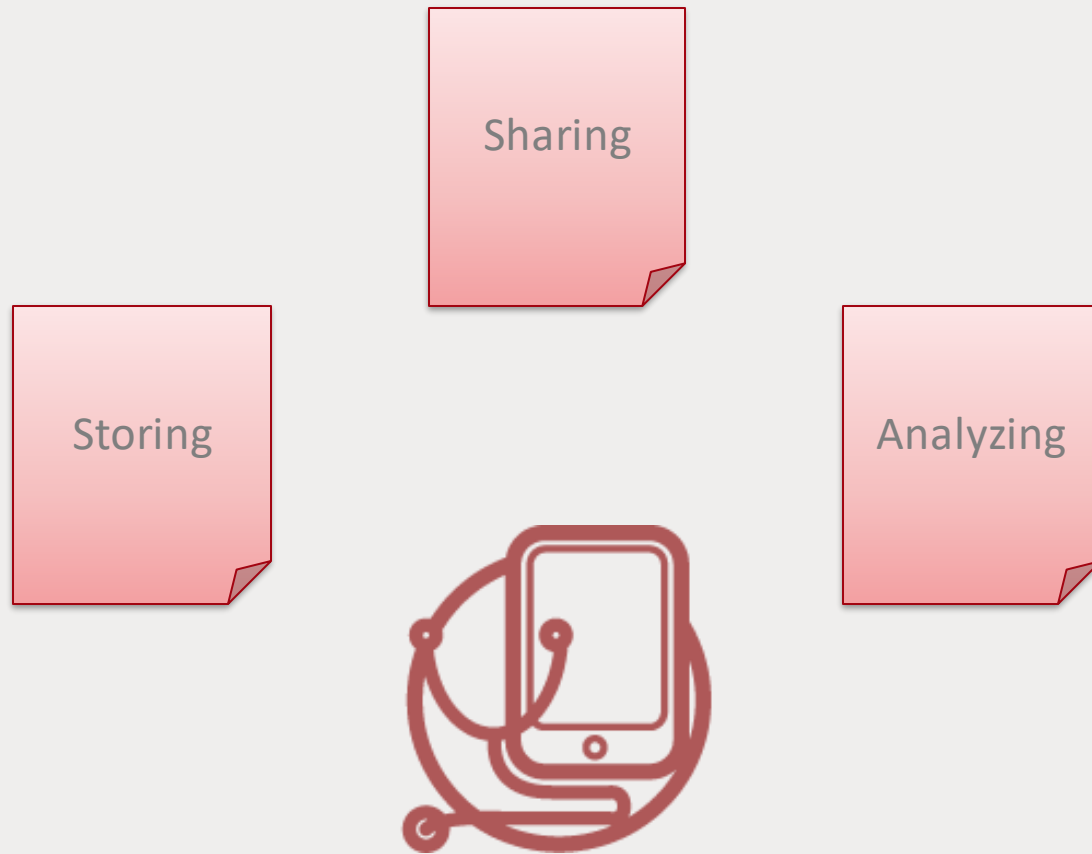
- Urbanized Clusters of 2,500 to 50,000
- Urbanized Areas of 50,000 or more
- Rural areas include one-fifth of the country's population



Challenges of Rural Medicine



Health Information Technology



Health Information Exchange

Making the **right information** available to the **right people** at the **right time** across products and organization, in a way that can be relied upon and meaningfully used by recipients

Benefits:

- Avoid readmissions
- Avoid medication errors
- Decrease duplicate testing
- Improve diagnoses



Methods



Methods

- Main resource:
- **HSRProj Excel Database (November 2017)**



- Additional resources:
- **Office of National Coordinator**
- **CDC/National Center for Health Statistics**
- **Journal of Rural Health**



Search Strategies

Rural

Social Planning **Descriptor**
Rural Development

Population Dynamics **Descriptor**
Rural-Urban Migration

Rural Health Services **Descriptor**
Health Services, Rural
Rural Health Center
Services, Rural Health

Rural Health **Descriptor**

Rural Nursing **Descriptor**
Remote Rural Nursing

Hospitals, Rural **Descriptor**
Rural Hospitals

Rural Population **Descriptor**
Rural Communities
Rural Spatial Distribution

Telemedicine

Telemedicine [N04.590.374.800] -

Remote Consultation [N04.590.374.800.550]

Telepathology [N04.590.374.800.600]

Teleradiology [N04.590.374.800.700]

Telerehabilitation [N04.590.374.800.850]

HIT/HIE

	Abstract	Keyword	MeSH
Health Information Technology	385	46	0
Health Information Exchange	69	1	0
Health Information Organization	8		
RHIO	7		

Results

Visualizations
Gap
Solution





TELE

- MeSH: 869
- Keyword: 532

1223

RURAL

- MeSH: 829

86

HIE/HIT

- Abstract: 469
- Keyword: 47

31

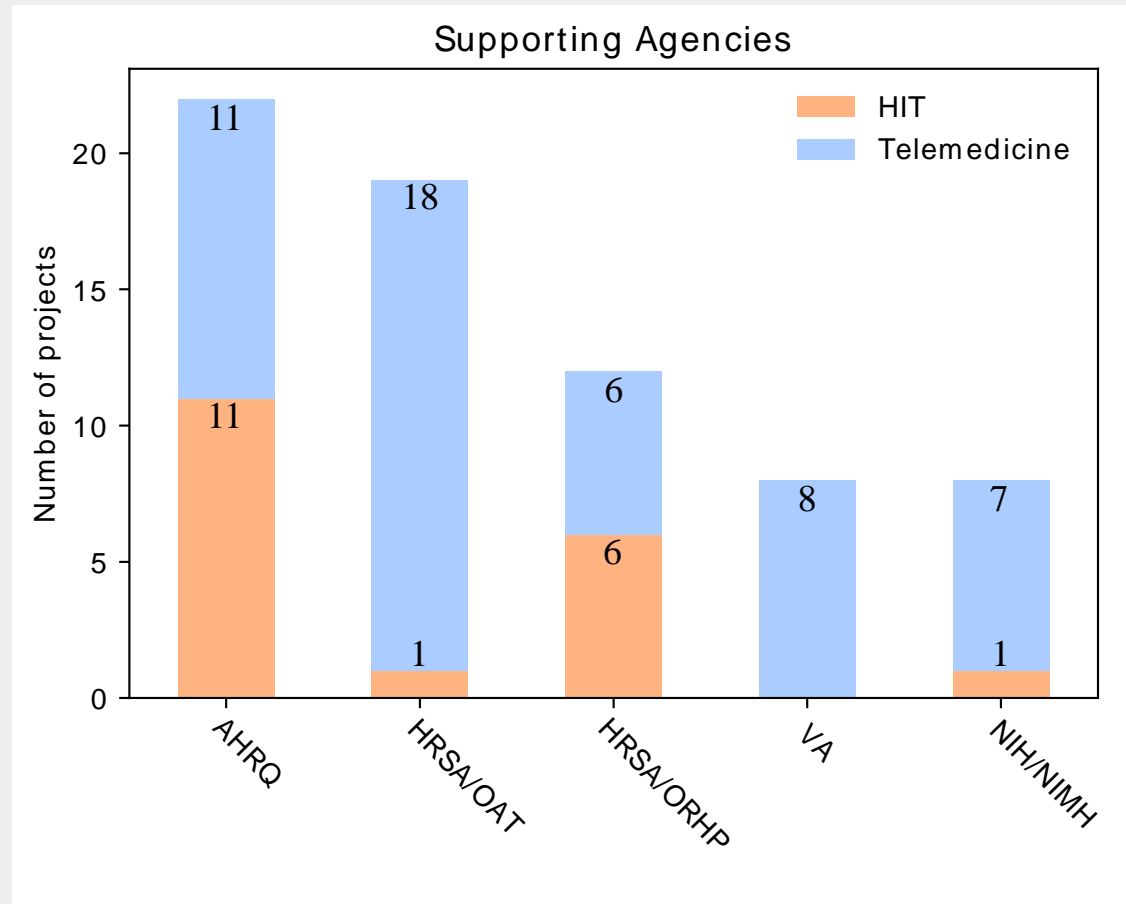
480



110

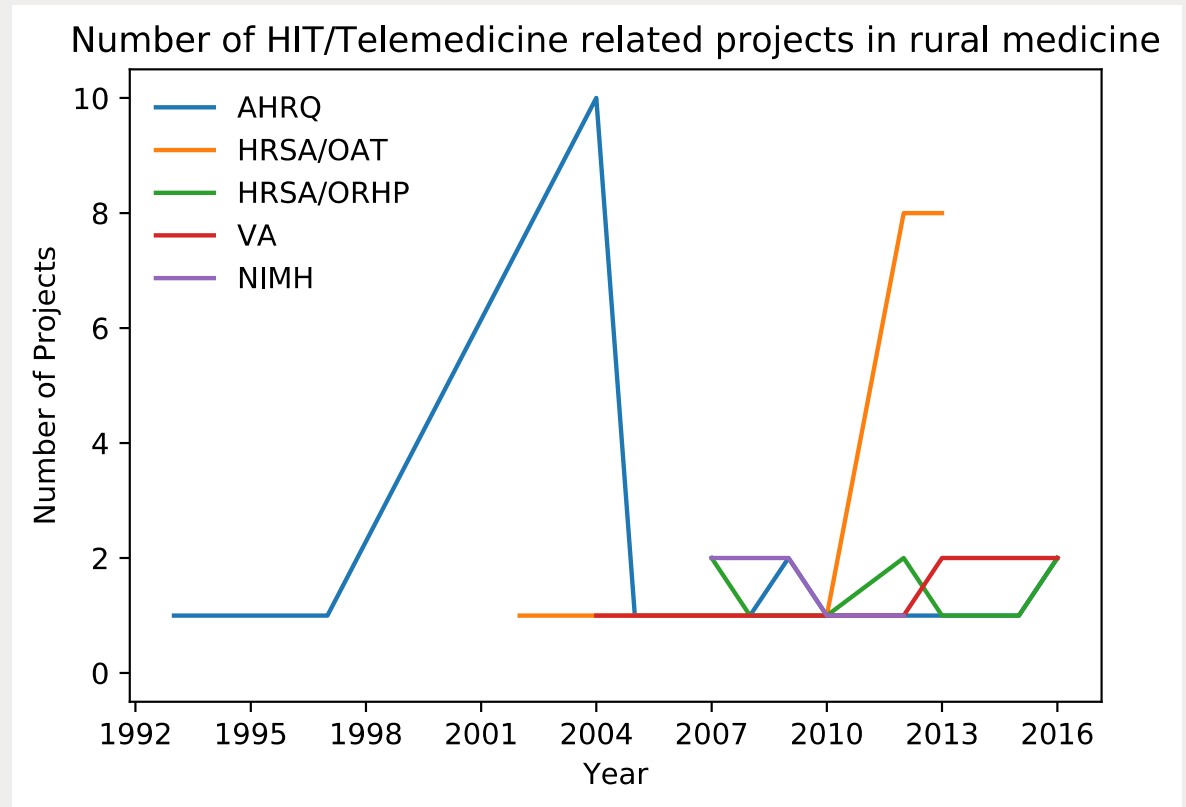
Supporting Agencies

- AHRQ projects
- HRSA/ORHP
- VA projects



Trend over time

- **2004:**
HIT: 9
Telemedicine: 1
- **2013:**
HIT: 1
Telemedicine: 8



Gap

- Hurdles to a successful HIE implementation within rural communities
 - **Financial reasons**
 - **Lack of infrastructure and technical support**
 - **Adoption behavior due to lack of trust and motivation**
- Other post implementation analysis does not apply to rural medicine due to distinct workflow in such areas
 - **One size does not fit all**
- Telemedicine has the potential fill the gap

Proposal & Hypothesis

Proposal

- Exploring the opportunities for Regional Health Information Organizations (RHIO) to merge HIE and telemedicine to identify the areas that can be enhanced in rural medicine

Hypothesis

- This would gain the trust over time
- Leads to better care quality by providing necessary information at the point of care in a timely manner
- Reduce cost in long-term through better treatment and prevention
- Incentive models need to be explored

References

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