

**Child Health Evaluation
and Research Unit**



University of Michigan



**University of Michigan
C.S. Mott Children's Hospital**

Immunization Registry Operational Guidelines Evaluation

Progress to Date

Kevin Dombkowski

October 7, 2013

Today's Update

- Background
- Approach
- Current status
- Next steps

What are the MIROW guides?

- Modeling of Immunization Registry Operations Work Group (MIROW)
- Identify and prioritize functional areas of IIS that can:
 - benefit from a collective approach
 - develop best practices
- Provide recommendations that are technology-independent

MIROW Best Practice Guides

- Principles, business rules, terms and definitions
- Business process models
- Challenges and solutions
- Peer-reviewed literature references
- Implementation examples

MIROW Evaluation Objectives

- To provide AIRA and the IIS community with an analysis of the impact on IIS operations of selected MIROW guides:
 1. management of patients' active / inactive (MOGE) status (2005)
 2. vaccine-level deduplication (2006)
 3. data quality assurance (2008)
- Timeline: May - December, 2013

Overview of Evaluation Process

Develop Measures

Develop measures to
assess use of selected
MIROW guidelines



Conduct a
Broad Analysis



Conduct an
In-Depth Analysis

Develop Measures

- Explore familiarity with and usage of MIROW guidelines, including:
 - degree to which it is used
 - impacts on IIS operations
 - perceived benefits
 - barriers to implementation

Develop Measures



Conduct a
Broad Analysis

- Conduct a broad analysis of MIROW guideline use among state and local IIS

Develop Measures



Conduct a
Broad Analysis

- Contact IIS program:
 - email announcement sent by AIRA
 - follow-up email from CHEAR
 - schedule interview with IIS manager

Develop Measures



Conduct a
Broad Analysis

- Interview IIS vendors
- Interview IIS programs:
 - verify & update background information (e.g., vendor)
 - collect MIROW-specific information
 - prepare notes & clarify
 - summarize themes

Develop Measures

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graph TD; A[Develop Measures] --> B[Conduct a Broad Analysis]; B --> C[Conduct an In-Depth Analysis];
```

Conduct a
Broad Analysis

Conduct an
In-Depth Analysis

- Explore the impacts of key MIROW recommendations among a subset of IIS

Develop Measures

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graph TD; A[Develop Measures] --> B[Conduct a Broad Analysis]; B --> C[Conduct an In-Depth Analysis];
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Conduct a
Broad Analysis

Conduct an
In-Depth Analysis

- Consider key recommendations, e.g.:
 - patient status at provider & geographic levels
 - consistent definition and use of MOGE status
 - logic used for reminder / recall, assessment

Develop Measures

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graph TD; A[Develop Measures] --> B[Conduct a Broad Analysis]; B --> C[Conduct an In-Depth Analysis];
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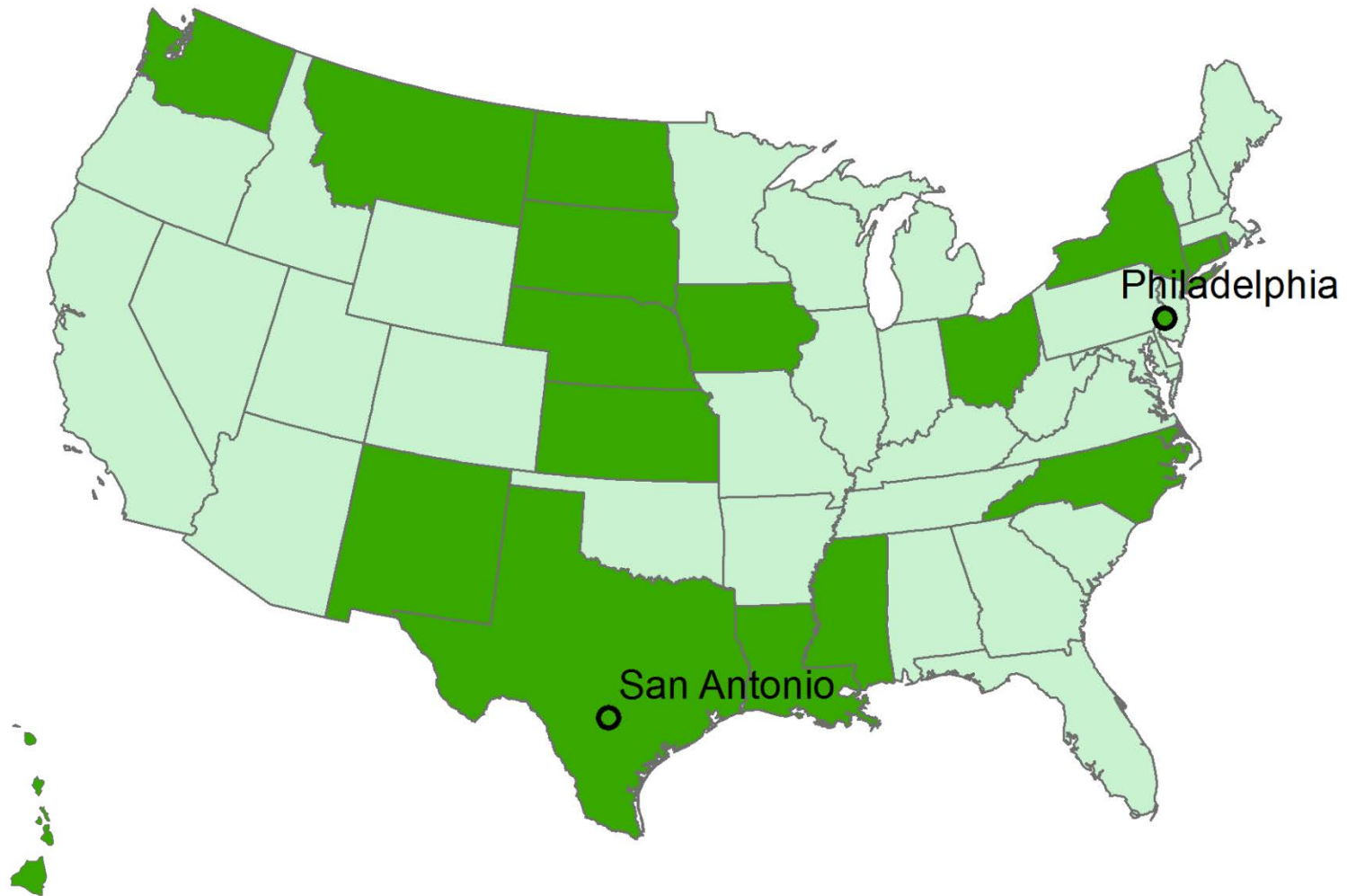
Conduct a
Broad Analysis

Conduct an
In-Depth Analysis

- Process:
 - assess vendor representation across IIS
 - identify pool of candidate sites
 - conduct broad evaluation, all IIS
 - conduct in-depth interviews among subset

Preliminary Observations

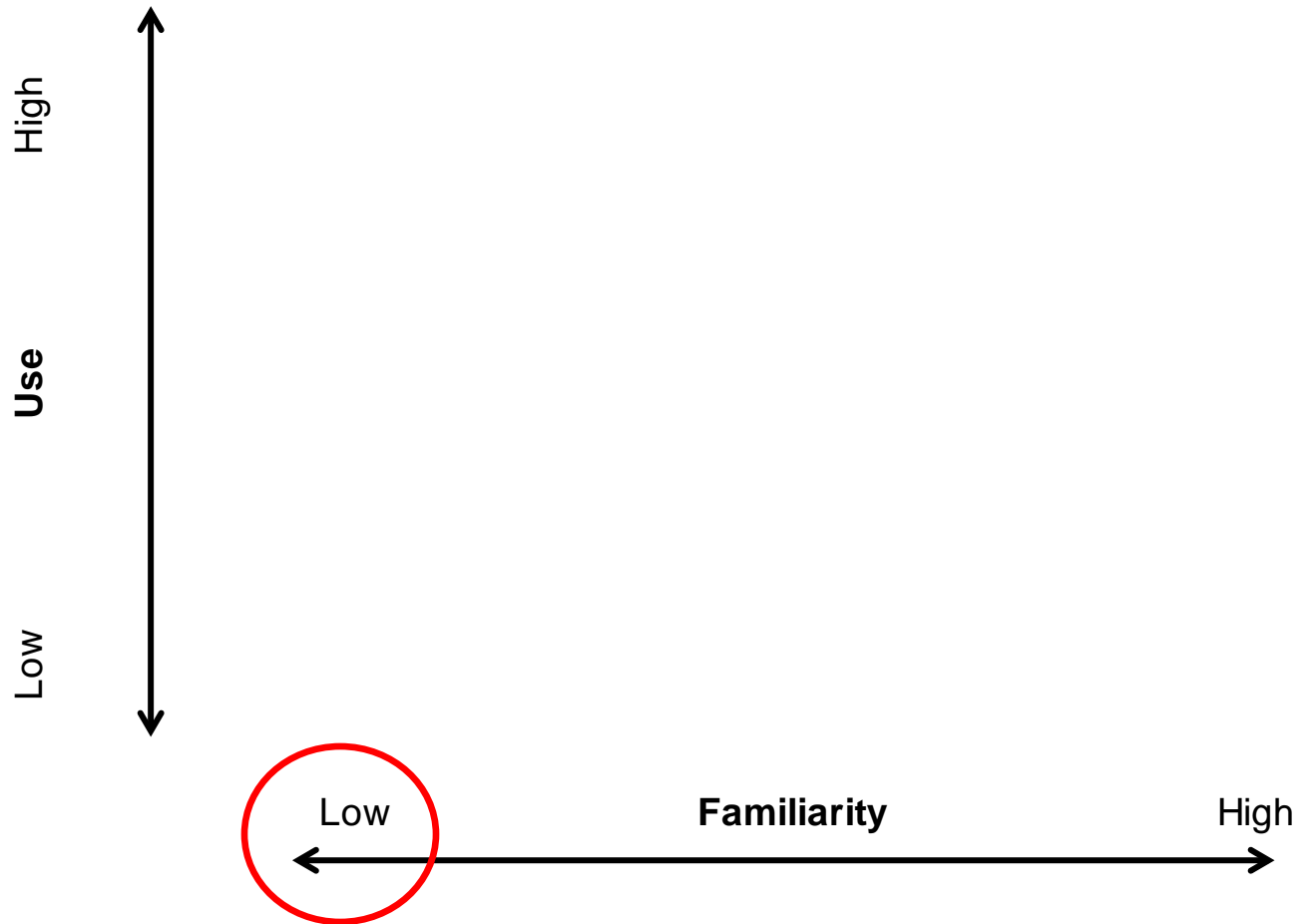
Interviews Conducted to Date



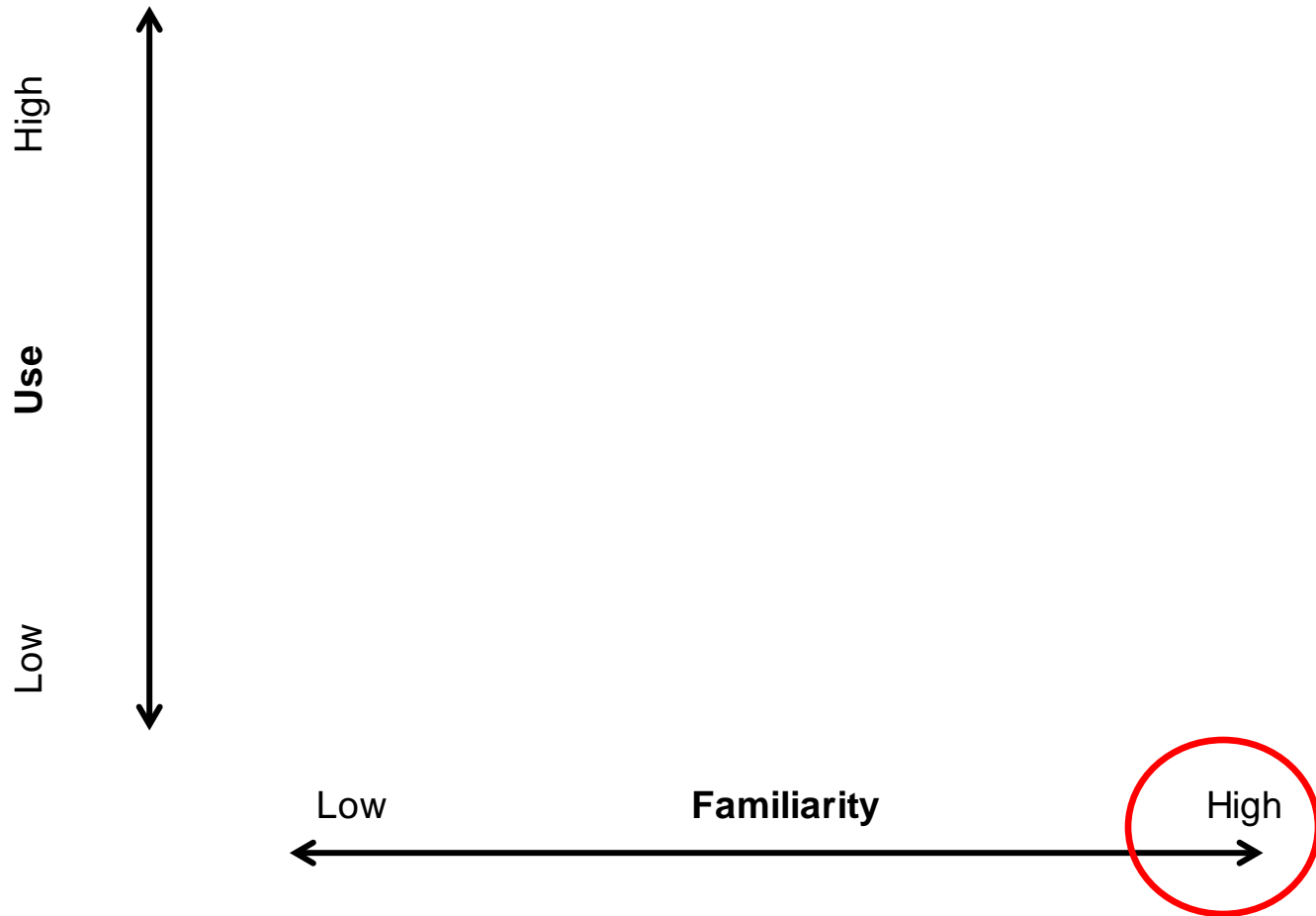
Preliminary Observations

- Most are familiar with the MIROW guides
 - of those, most have found at least one of the MIROW guides to be helpful
- Some variability in terms of:
 - familiarity
 - degree of use
 - timing of use
 - potential impact

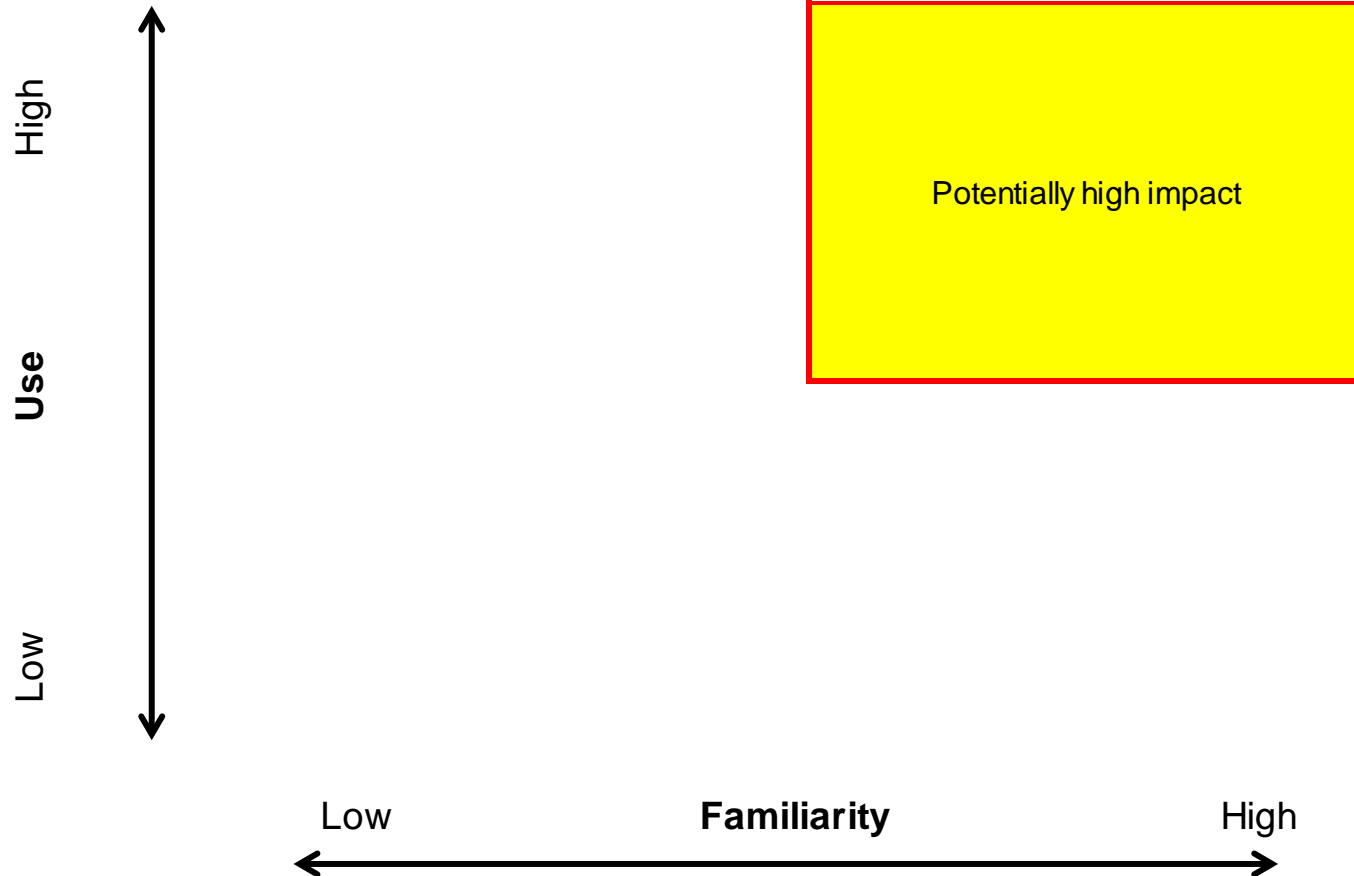
MIROW Guide Familiarity vs. Use



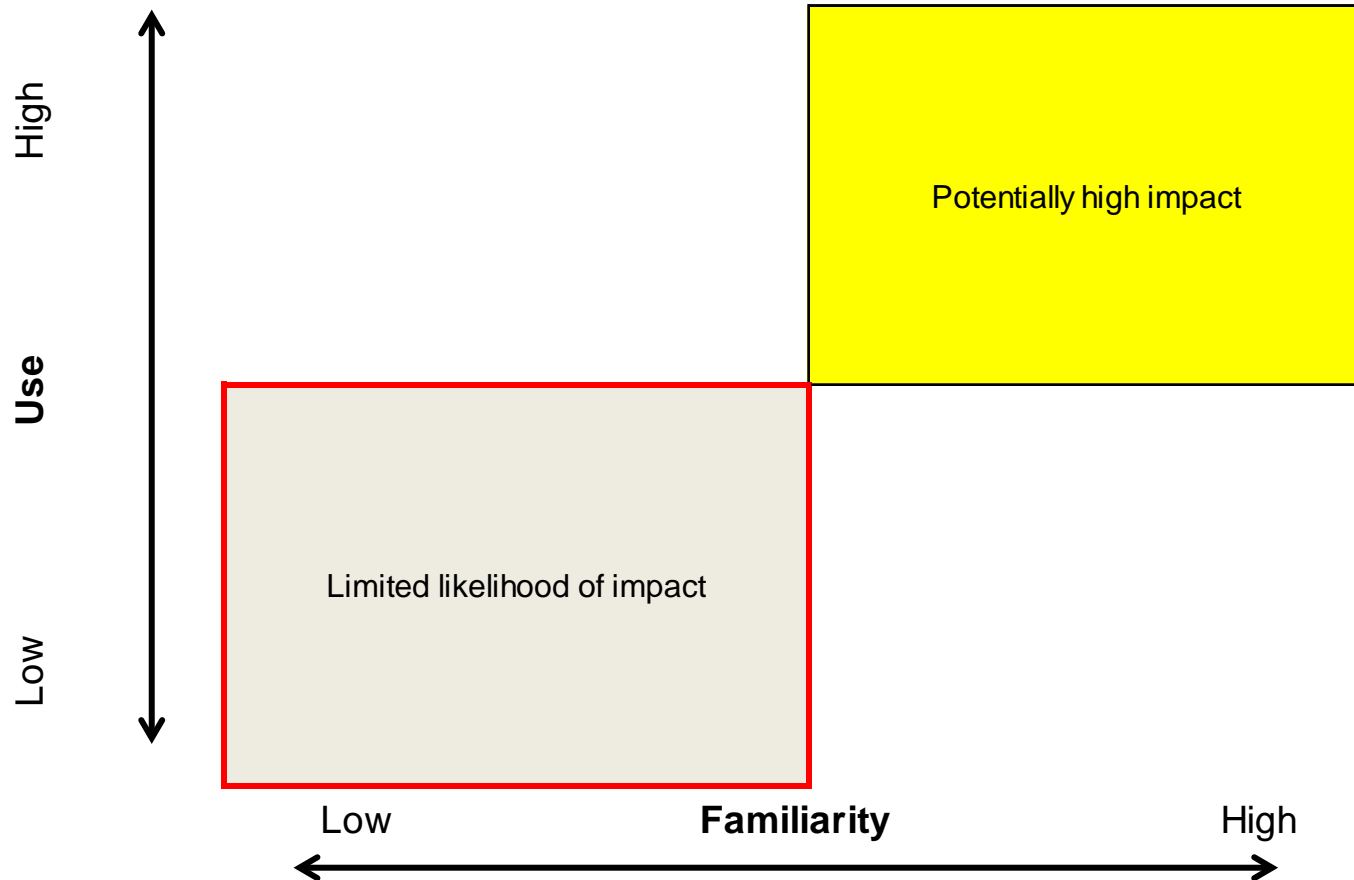
MIROW Guide Familiarity vs. Use



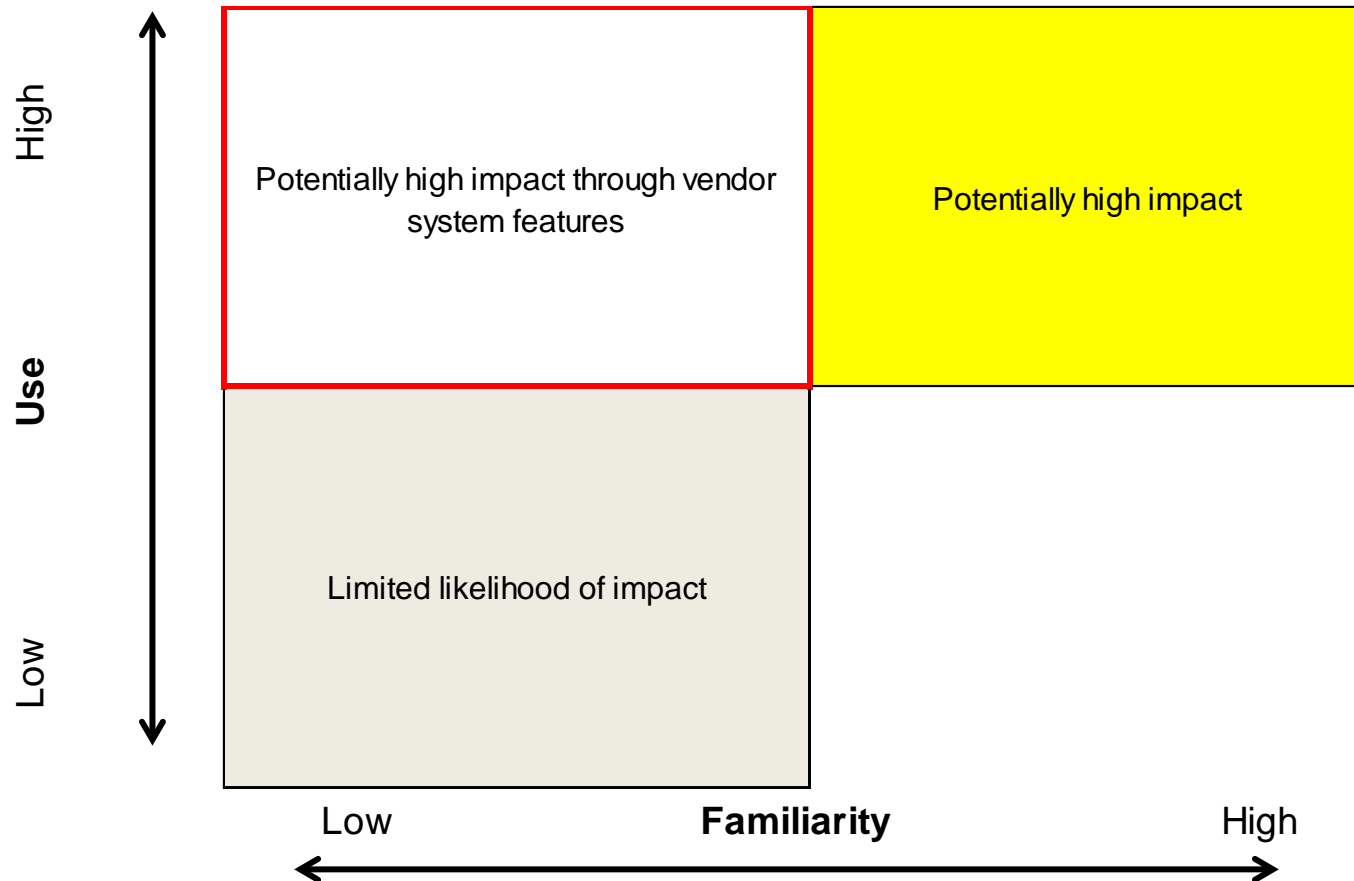
MIROW Guide Familiarity vs. Use



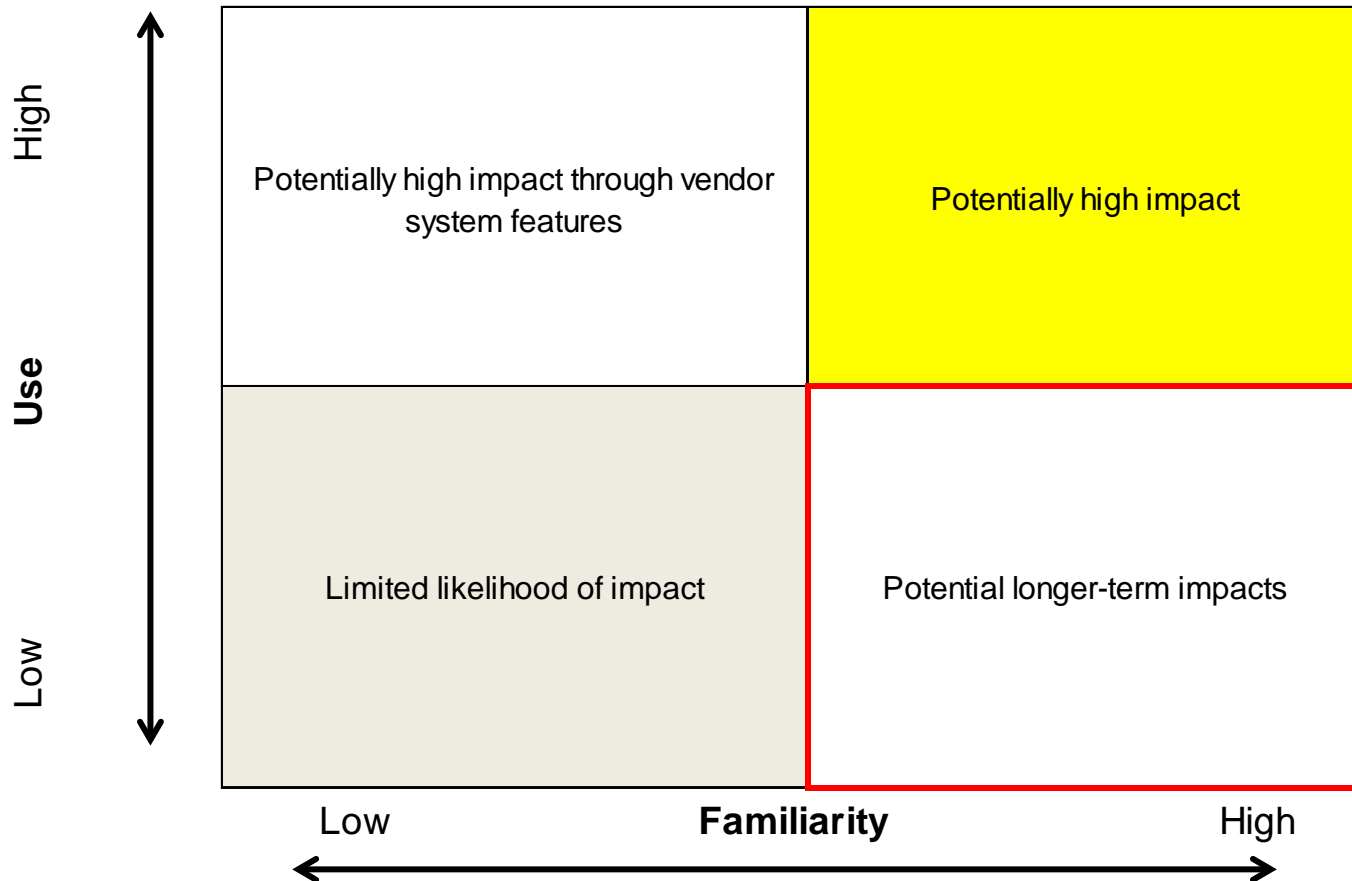
MIROW Guide Familiarity vs. Use



MIROW Guide Familiarity vs. Use



MIROW Guide Familiarity vs. Use



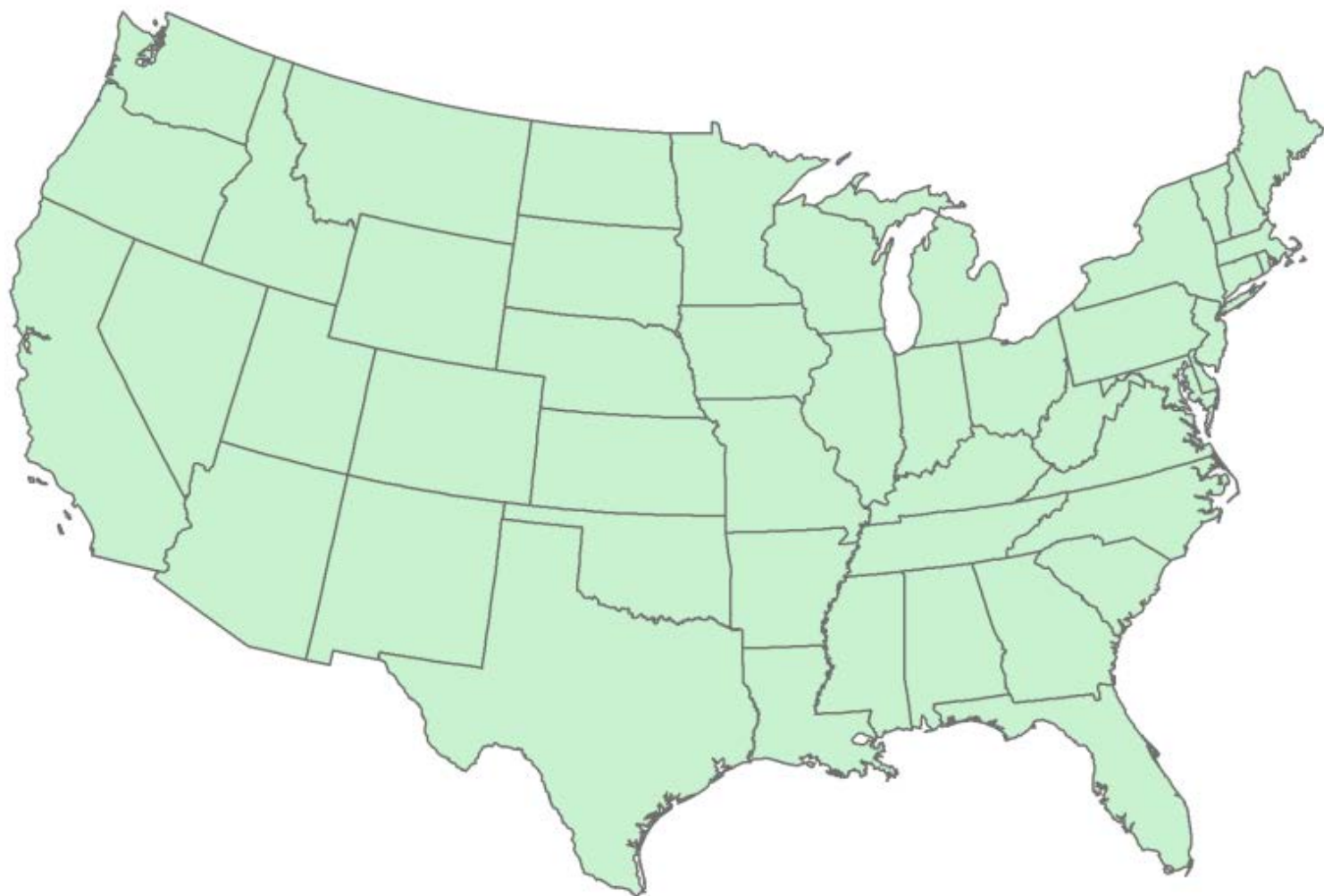
Preliminary Observations

- MIROW guide use is often spurred by a trigger event, e.g.:
 - new IIS procurement
 - new initiatives (e.g., EHR interoperability)
 - staff transitions
- MIROW guide recommendations may not align with jurisdiction business practices

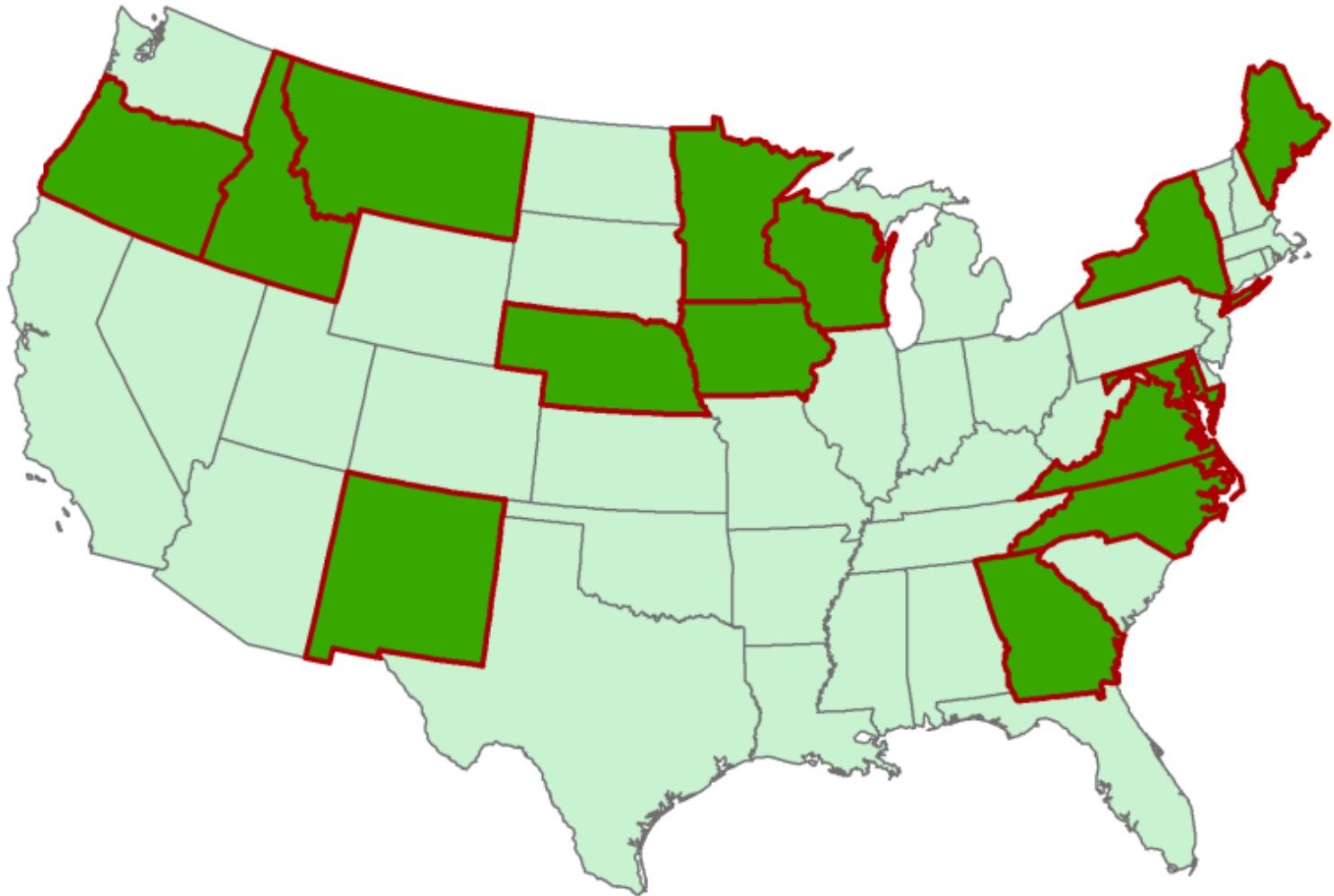
Preliminary Observations

- MIROW guide adoption is partially influenced by the IIS vendor product used
- Some vendor products may offer more uniform capabilities across jurisdictions
- Others products may seem to be the same, but may vary across jurisdictions, e.g., WIR

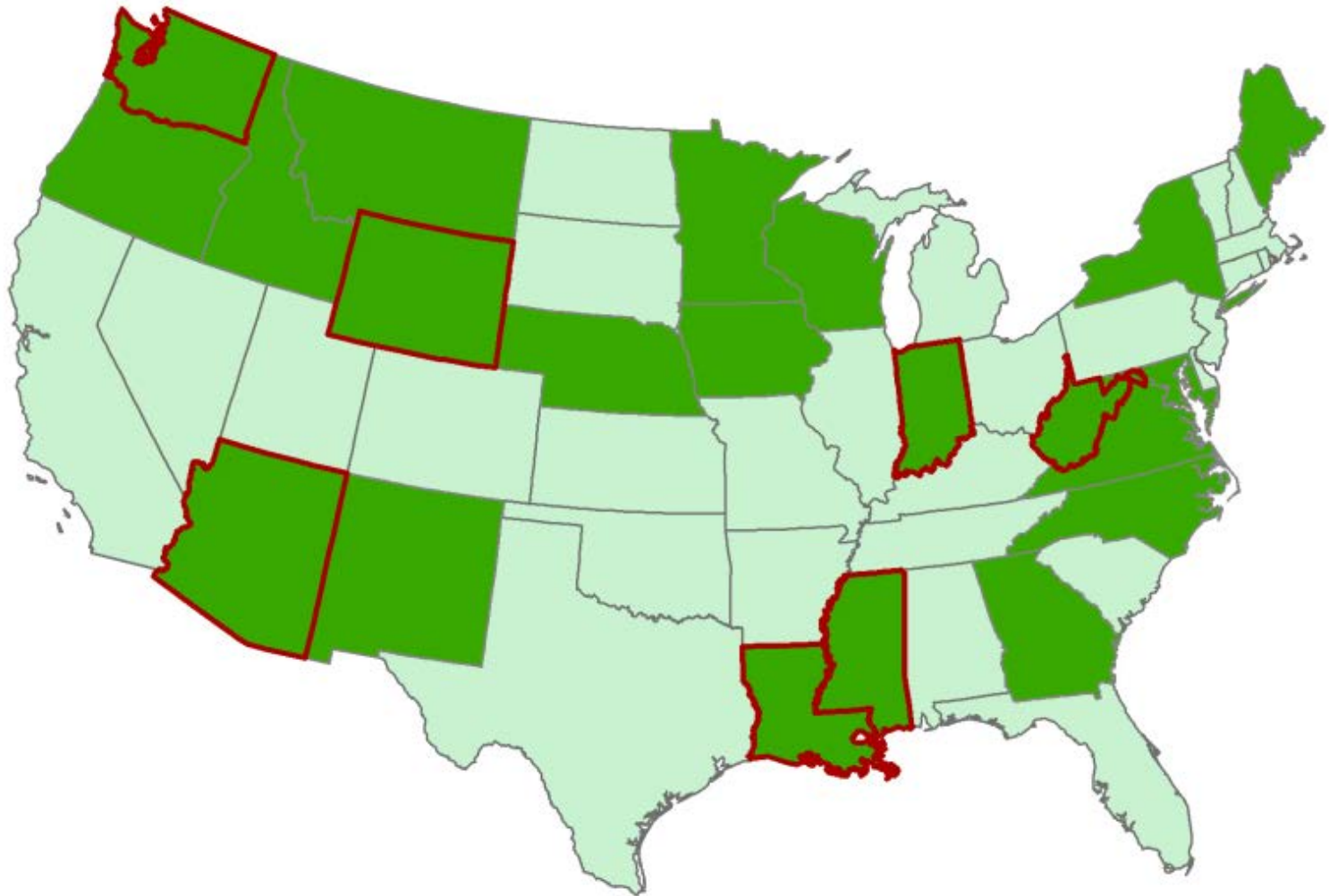
IIS Vendors



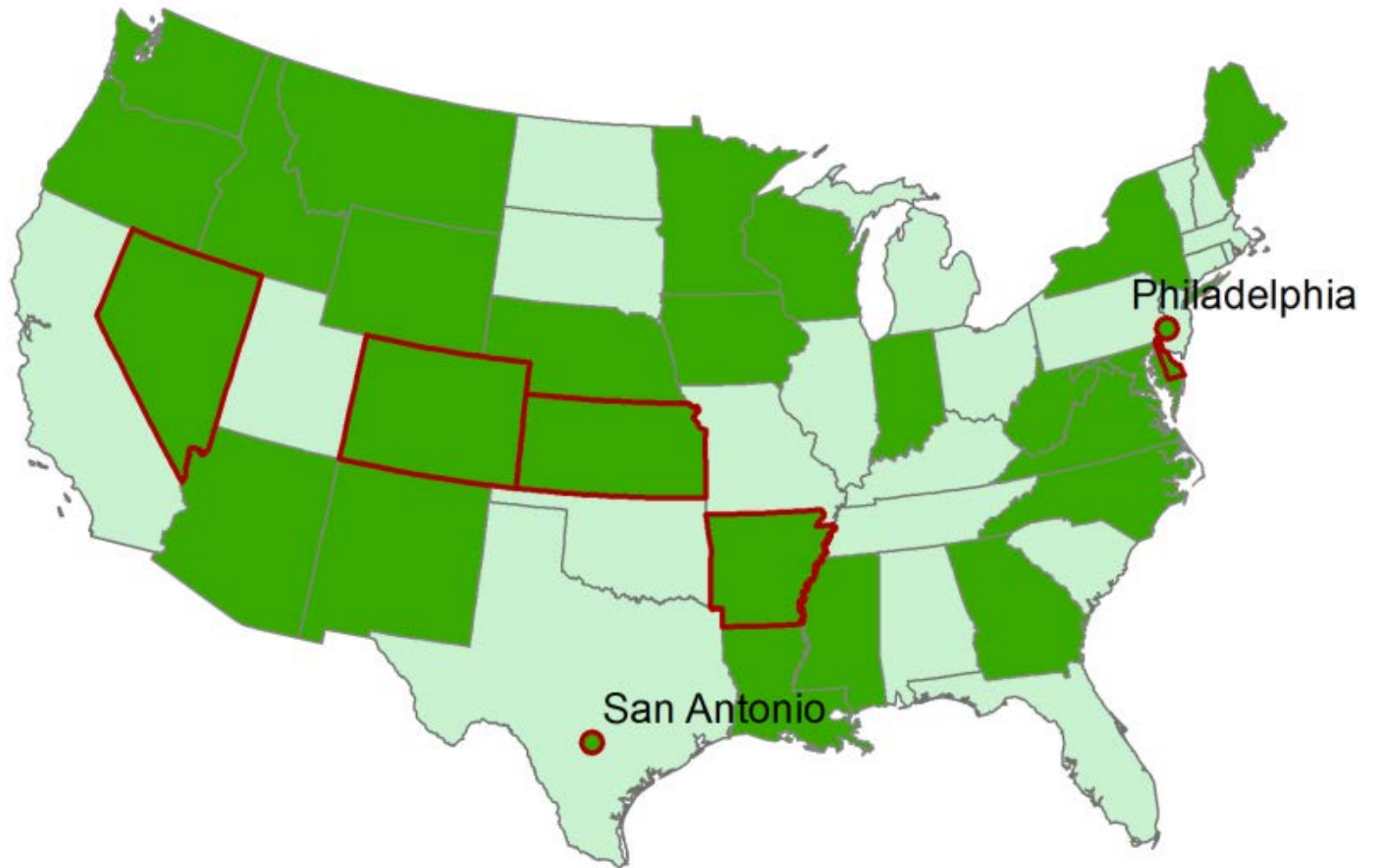
WIR



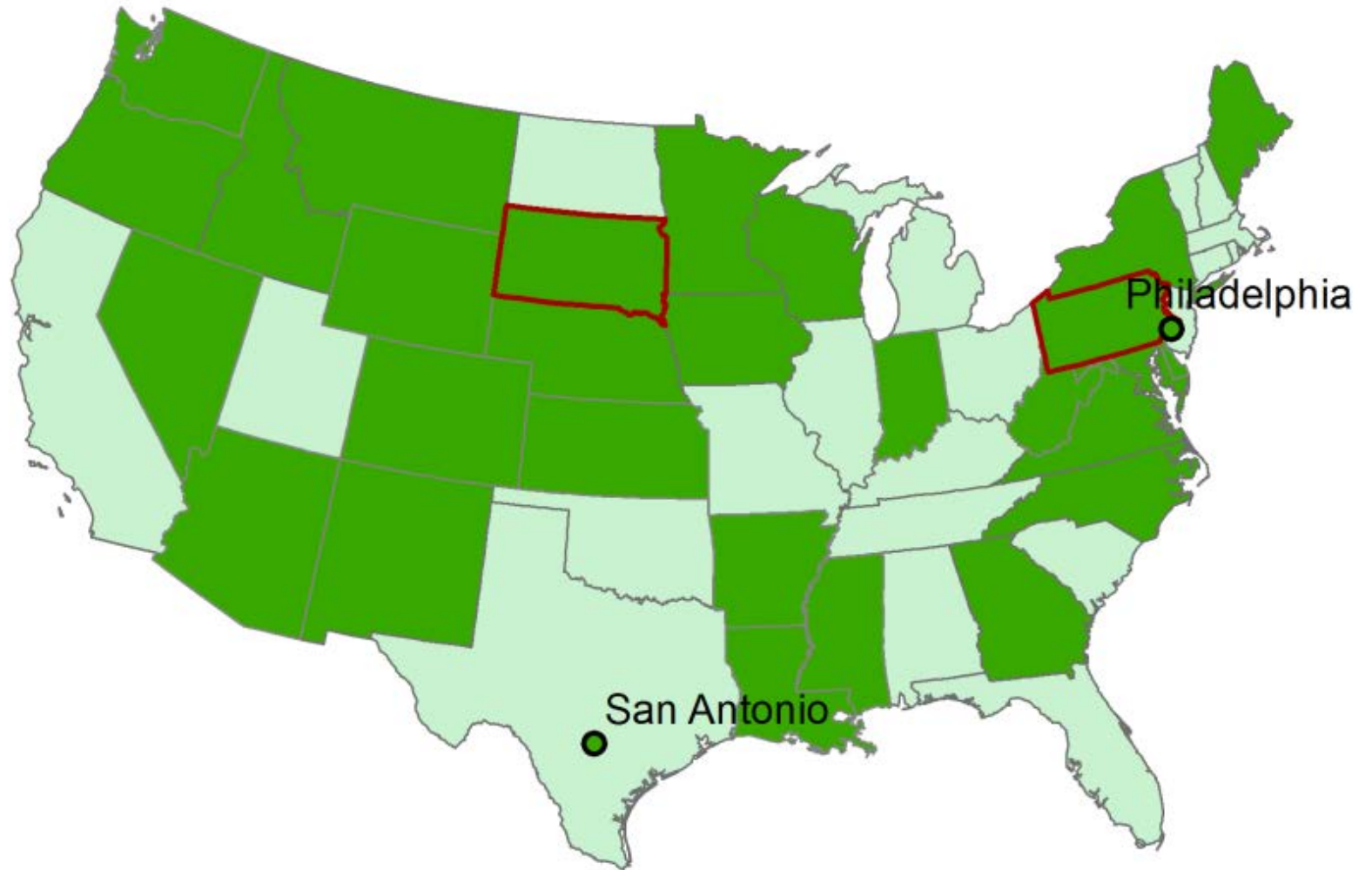
STC



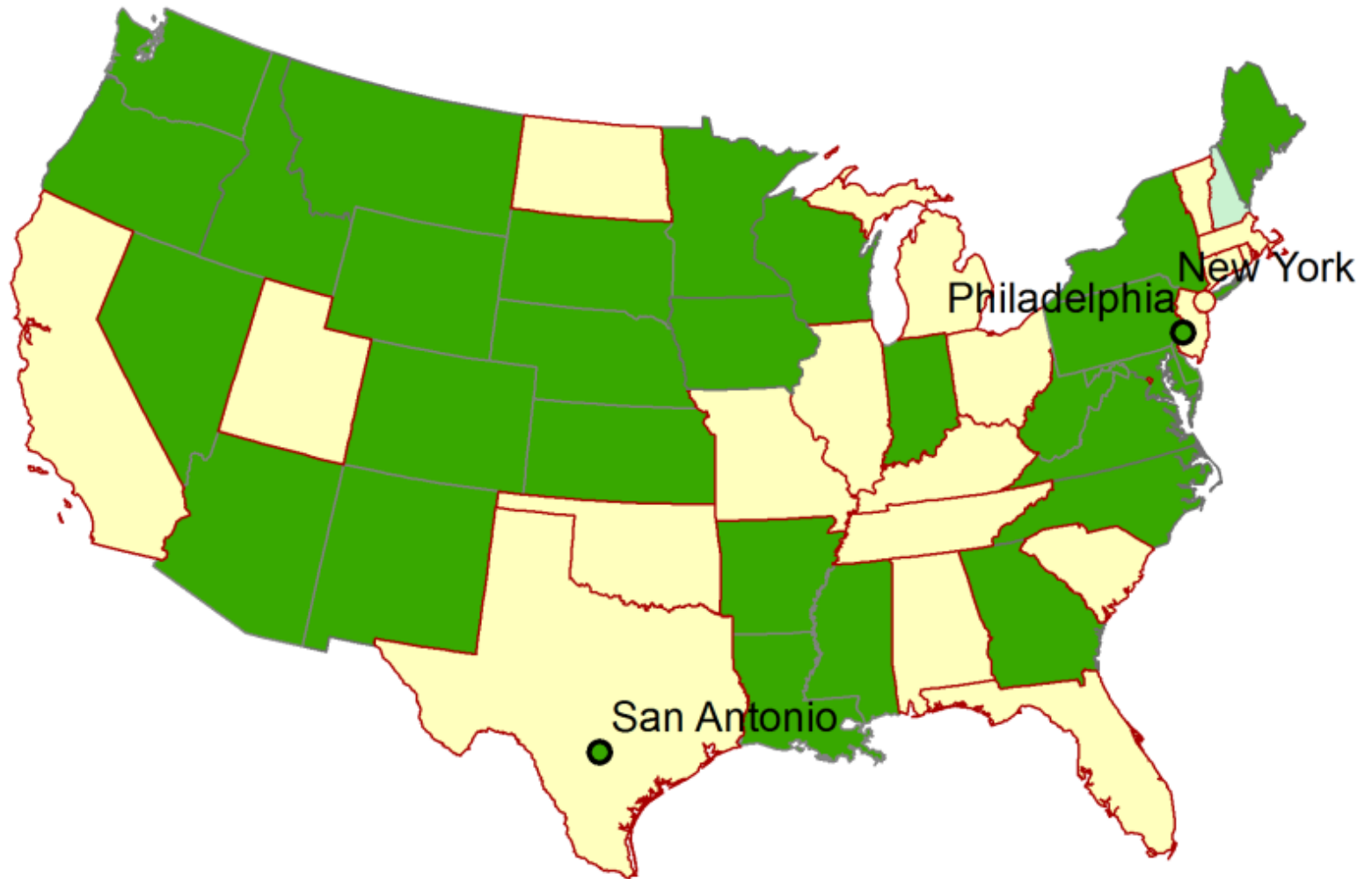
Envision



Avanza

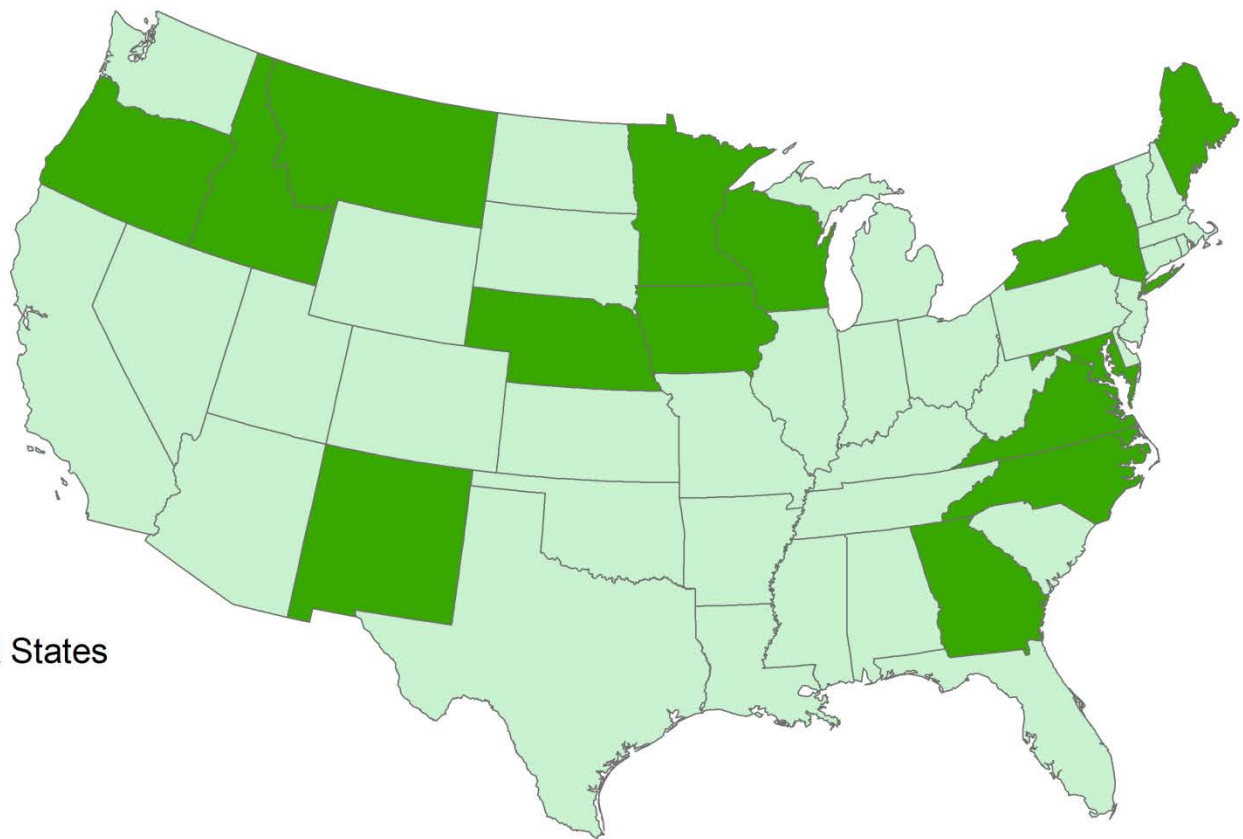


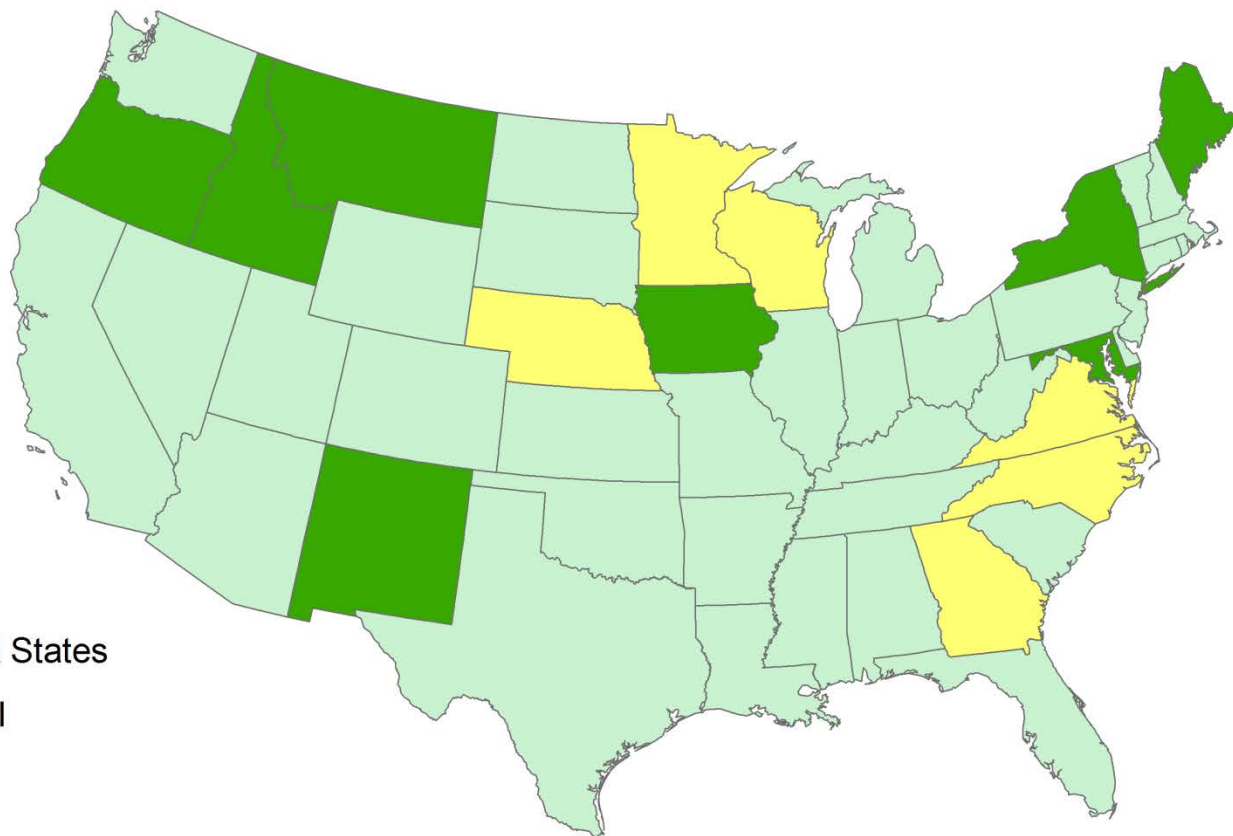
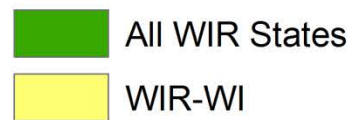
All Other IIS

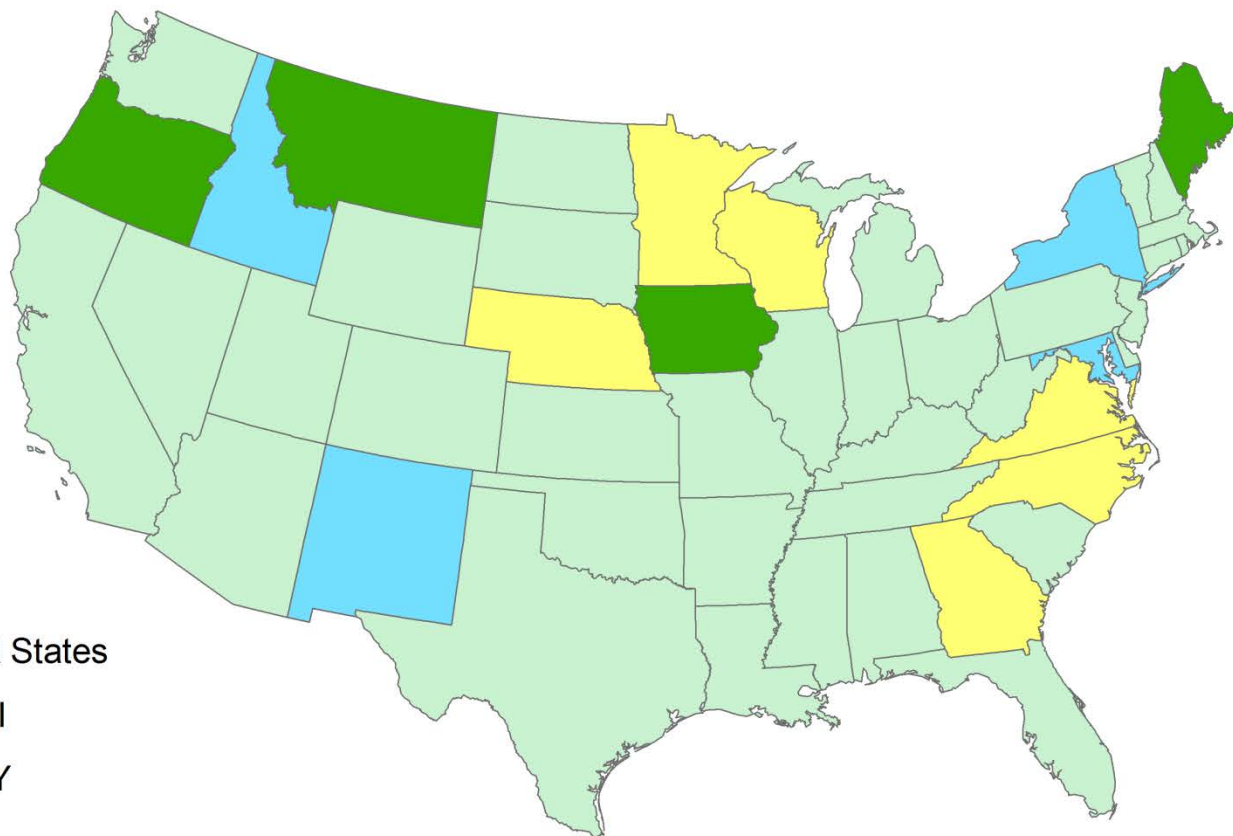


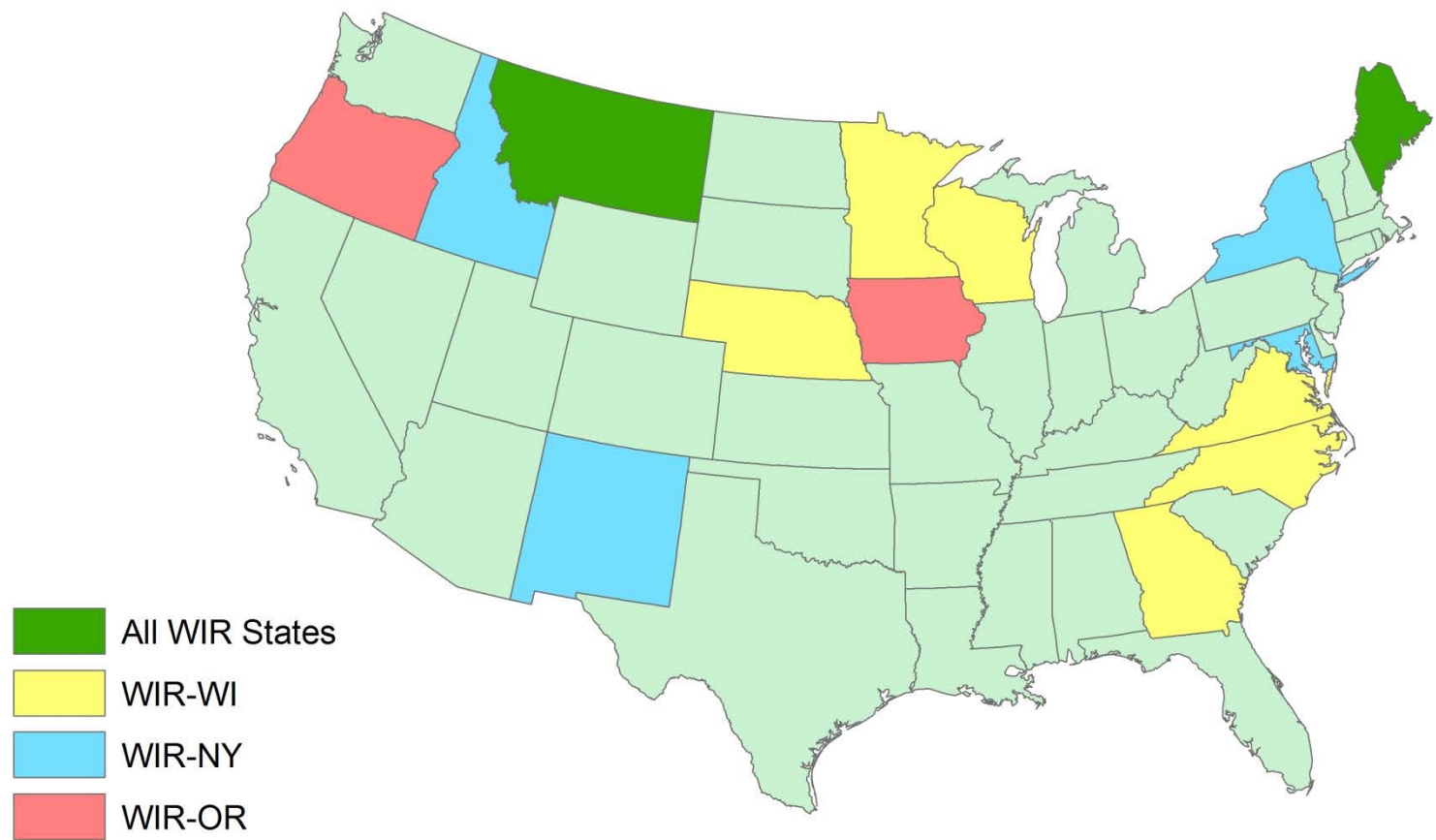
WIR: Variations on a Theme

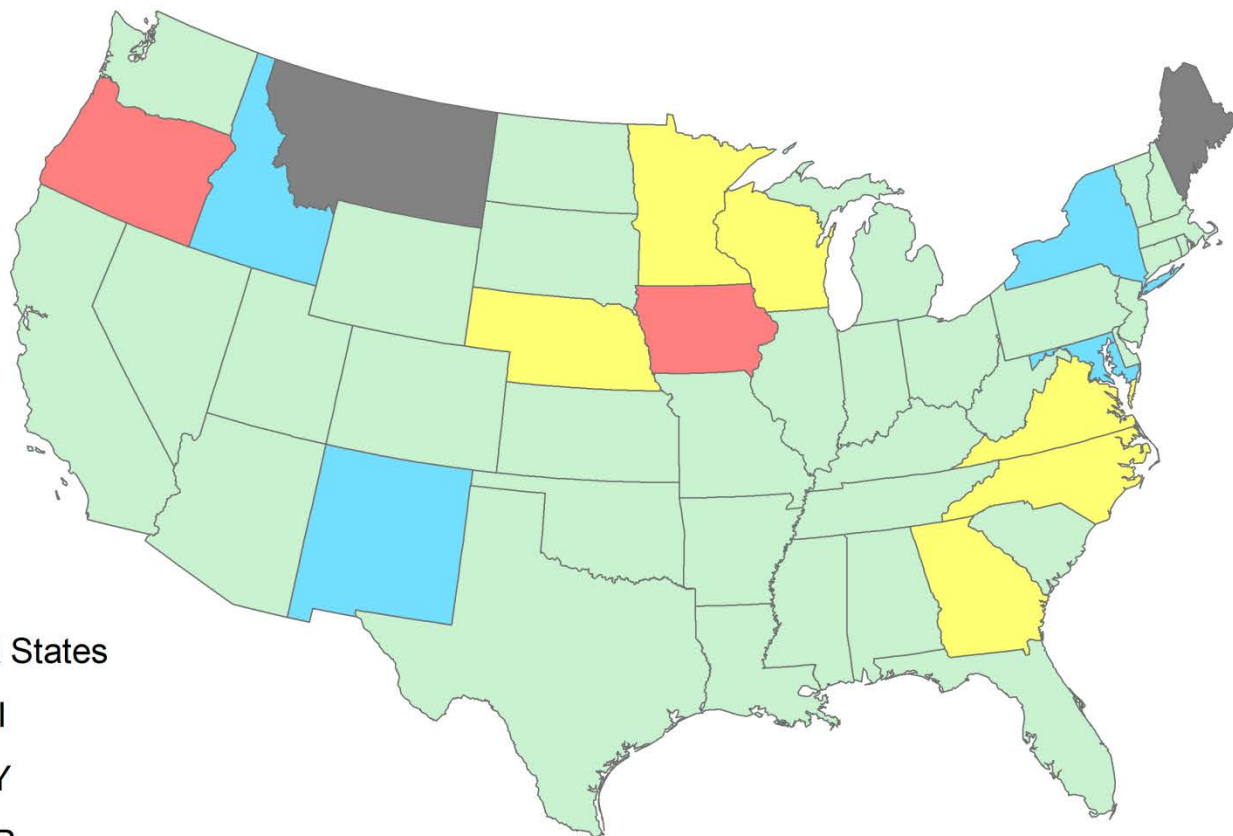
 All WIR States











Preliminary Observations

- Adoption of technical capabilities ≠ adoption of business practices
 - variable interpretation of appropriate use
 - may lead to inconsistencies
 - example: MOGE / patient status
- Jurisdictions adopting practices for one MIROW guide may not have done so for other guides

Preliminary Observations

- MIROW guides may be operationalized at different levels of IIS control, e.g.:
 - DQA process administered centrally
 - MOGE flags used at practice level by many providers

Preliminary Observations

- MIROW guides represent consensus-based best practices
- These are not necessarily the universe of all good practice
- Important to understand guidelines that were considered, but not adopted

Next Steps

- Continue interviews with IIS programs
 - schedule an appointment!
- Select subset for additional in-depth follow up
 - diversity of vendors
 - year implemented
 - MIROW steering committee participation
- Summarize findings December 2013

Collaborators

- Anne Cowan, Sarah Clark
- AIRA
- MIROW Steering Committee
- IIS program staff

Kevin Dombkowski, DrPH, MS

Research Associate Professor

University of Michigan, Division of General Pediatrics

Child Health Evaluation and Research (CHEAR) Unit

www.chear.org

kjd@med.umich.edu

(734) 615-6758

