

# notice

## National Opportunity to Improve Infection Control in ESRD

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Renal Network 11

3/3/2015



# Introducing the NOTICE Project

- National Opportunity to Improve Infection Control in End Stage Renal Disease
- Purpose: Reduce vascular access infections (VAIs) acquired in dialysis facilities
- Overall Project Goals:
  - Improve safety culture using the Comprehensive Unit-based Safety Program (CUSP)
  - Enhance infection control best practices among clinicians
  - Reduce VAI rates in participating facilities

# NOTICE Phase I - History

- Federal agencies:
  - Agency for Health Research and Quality (AHRQ)
  - Centers for Medicare & Medicaid Services (CMS)
  - Centers for Disease Control and Prevention (CDC)
- Literature review:
  - Identify infection control risks and best practices in dialysis facilities
- Developed the infection control worksheet and infection control checklists to monitor infection control practices in facilities
- Tested the usefulness and reliability of these instruments

# Phase I Project Team

Health Research & Educational Trust (HRET)

University of Michigan Kidney Epidemiology and Cost Center (KECC)

CMS ESRD Training and Support Team

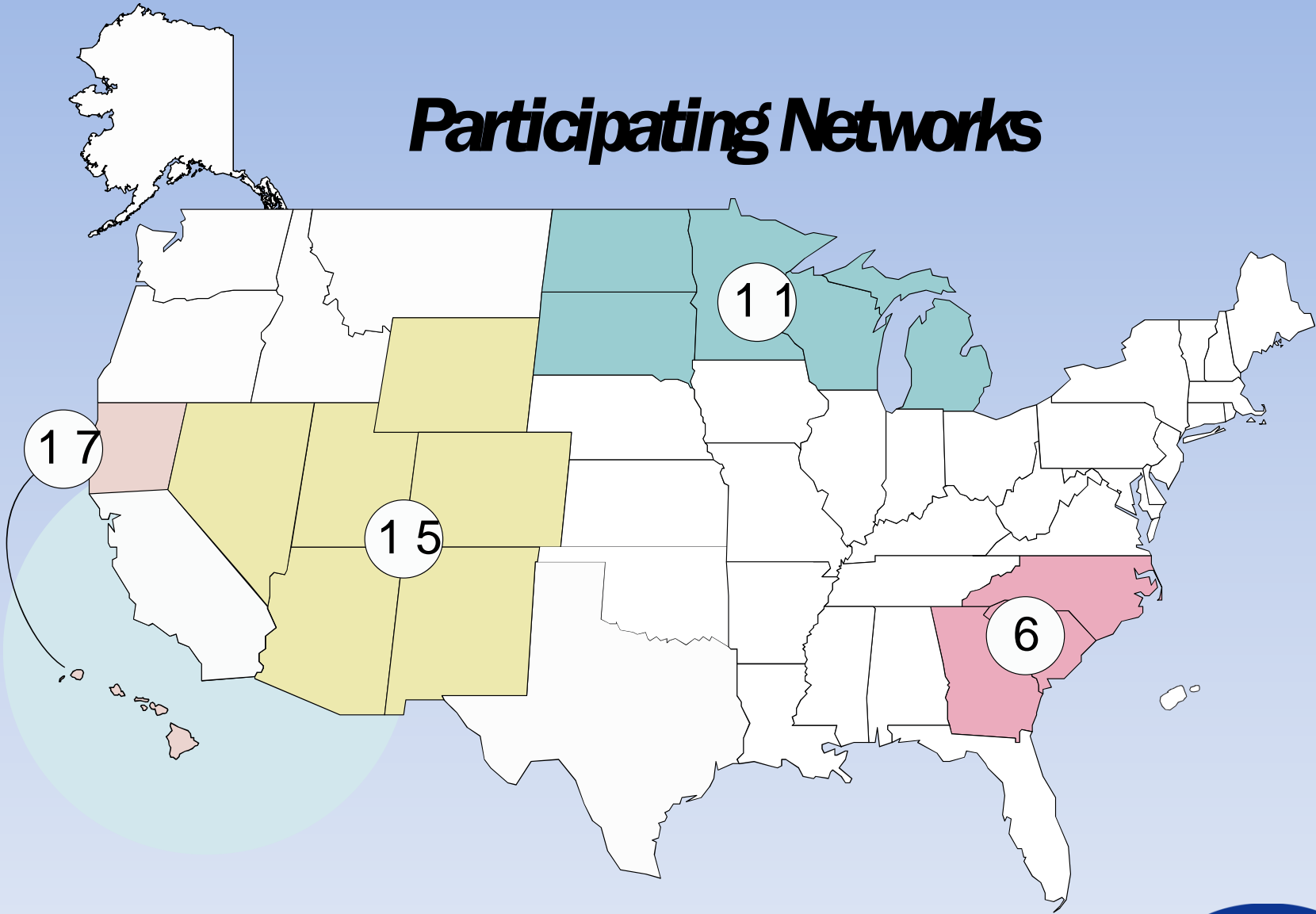
Renal Network of the Upper Midwest (Network 11)

Southeastern Kidney Council (Network 6)

Intermountain ESRD Network (Network 15)

Western Pacific Renal Network (Network 17)

# Participating Networks



## CVC Exit Site Care

Procedural Checklist

Checklist #1b

Access of AV Fistula or Graft for Initiation of Dialysis  
Procedural Checklist

Checklist #1c

## Parenteral Medication Storage, Preparation and Administration

Procedural Checklist

Assemble supplies in a clean area with clean surface away from dialysis station before the following steps:

Checklist #2

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\*Note: this check and injection, administration

## Access of Central Venous Catheter (CVC) for Termination of Dialysis

Procedural Checklist

Checklist #3a

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## Access of AV Fistula or Graft for Termination of Dialysis and Post Dialysis Access Care

Procedural Checklist

Checklist #3b

## Cleaning and Disinfection of the Dialysis Station

Procedural Checklist

Checklist #4

- Don gown, gloves & impermeable mask/eye protection or face shield
- Remove all bloodlines & disposable equipment & discard in biohazardous waste; dialyzer to be reprocessed all ports capped; dialyzer, bloodlines etc. are transported in a manner to prevent contamination of other surfaces; remove gloves
- Hand Hygiene
- Don clean gloves, obtain EPA-registered disinfectant; tuberculocidal if visible blood
- Wipe machine top, front and side surfaces and dialysate hoses wet with disinfectant per manufacturer directions for use; If visible blood, second application with tuberculocidal disinfectant
- Empty prime waste receptacle; wipe all internal and external surfaces wiped wet with disinfectant per manufacturer directions for use
- When chair is vacated, remove and discard all disposable supplies
- Fully recline chair and clean with disinfectant, wipe all external front-facing and side chair surfaces wet with disinfectant per manufacturer directions for use, including down sides of seat cushion and side tables
- Wipe down all non-disposable items BP cuff, TV controls, call button, data entry station & counters around station with disinfectant
- If clamps are used, clean off visible blood and dirt and disinfect
- Discard cloth/wipe; remove gloves
- Hand Hygiene

# Change in Average Facility NHSN Infection Rates During NOTICE Project Participation

NHSN measure	Pre ICE visit	Post ICE visit	Percent Change	Adjusted Percent Change*	p value
VAI Rate (per 100 pt. months)	1.46	0.92	37%	35%	0.0114
Bacteremia (per 100 pt. months)	0.89	0.63	29%	22%	0.1142

\*generalized linear mixed model adjusted for dialysis facility characteristics. Comparisons are not adjusted for temporal trends in infection rates.

# NOTICE Phase II

# NOTICE Team



Health Research & Educational Trust (HRET)

University of Michigan Kidney Epidemiology and Cost Center (KECC)

Renal Network of the Upper Midwest (Network 11)

Southeastern Kidney Council (Network 6)

# CHARGE!

Creating a culture of safety

Hand hygiene

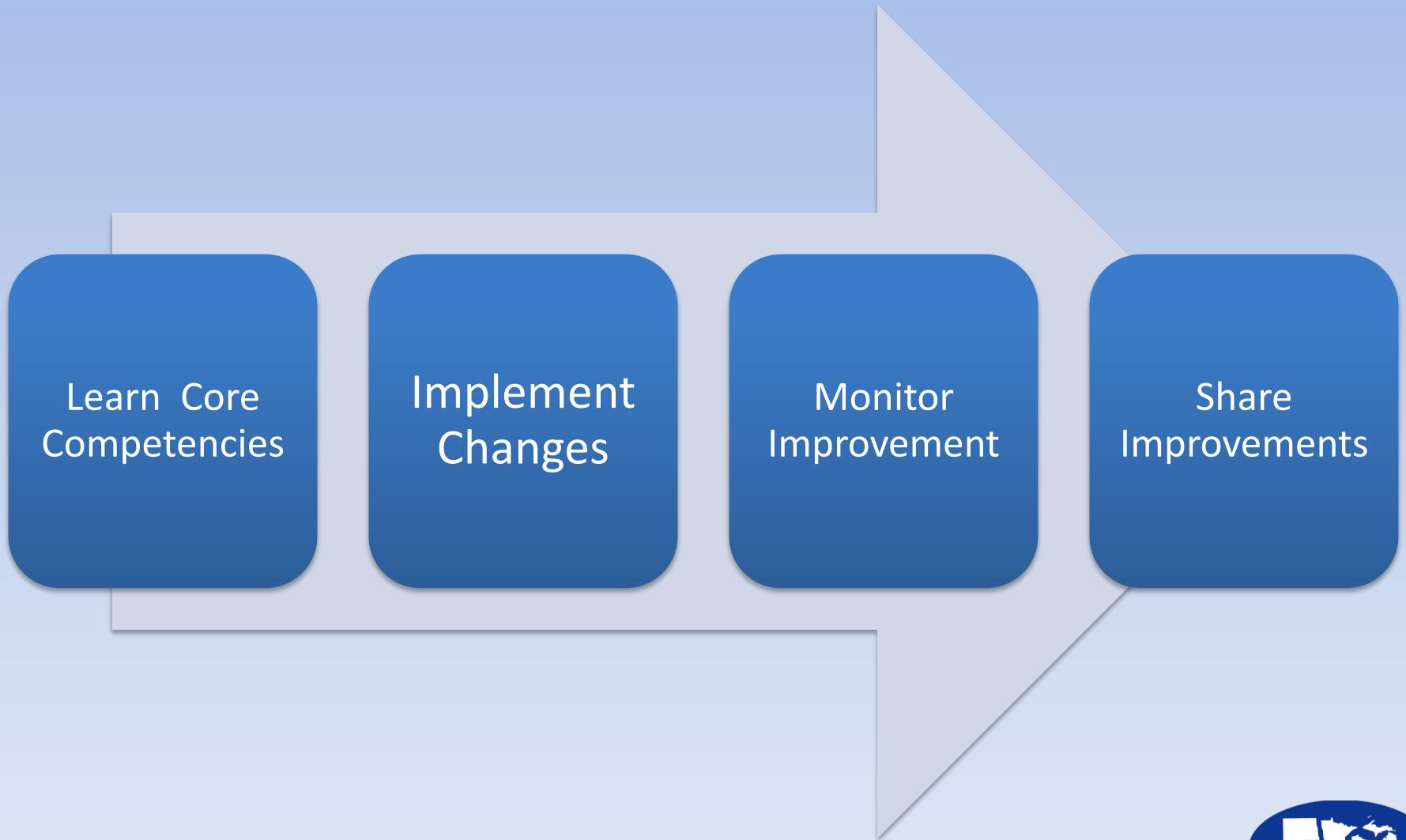
Access site (preparation and cleansing)

Reduce and remove catheters

Great connection/disconnection technique

Evaluation of team infection control practices

# NOTICE Project Processes



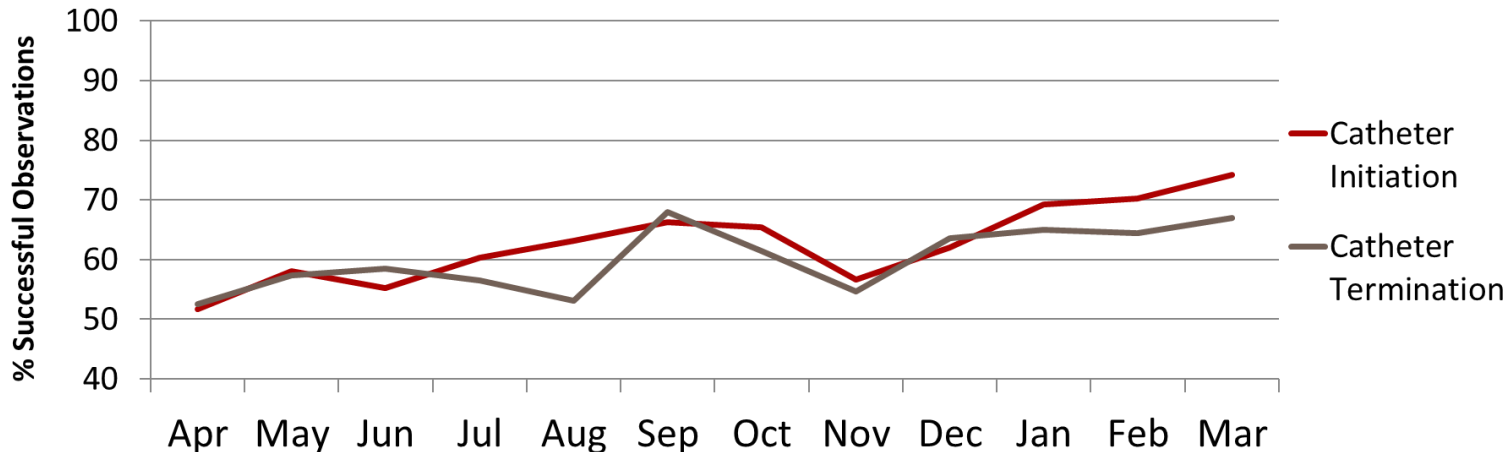
# Group Learning Sessions

- Culture of Safety Part 1
- Clinical Care Part 1
- Culture of Safety Part 2
- Culture of Safety Part 2
- Data Interpretation
- Patient and Family Engagement
- 12 bi-monthly coaching calls

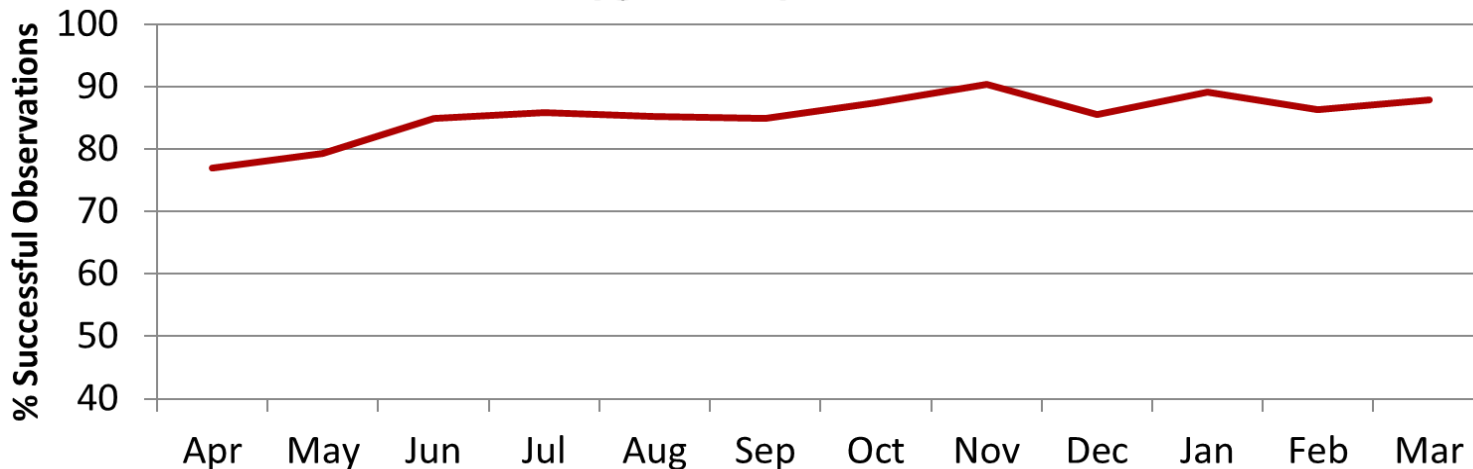


# Did NOTICE Work?

## Scrub Uncapped Hub with Antiseptic, Apr 2013 - Mar 2014



## Hand Hygiene, Apr 2013 - Mar 2014



- Clinicians & Providers
- Education & Training
- Hospitals & Health Systems
- Prevention & Chronic Care
- Quality & Patient Safety**
  - AHRQ's Healthcare-Associated Infection Program
  - Comprehensive Unit-based Safety Program (CUSP)
  - Partnership for Patients
  - Patient and Family Engagement
  - Patient Safety Measure Tools & Resources
  - Tools and Resources**
  - Pharmacy Health Literacy Center
  - Surveys on Patient Safety Culture
  - Quality Measure Tools &

## AHRQ Safety Program for End-Stage Renal Disease Facilities – Toolkit

The ESRD Toolkit was created to help end-stage renal disease clinics prevent healthcare-associated infections in dialysis patients. The toolkit helps dialysis center clinicians make care safer by following clinical best practices, creating a culture of safety, using checklists and other audit tools, and engaging with patients and their families. The toolkit has science-based, practical resources that reflect the real-world experiences of the frontline providers who participated in the toolkit's development.

### How To Use the ESRD Toolkit

The toolkit consists of four instructional modules that a facilitator can use to teach dialysis center team members specific ways to create a culture of safety. The modules are modifiable to meet individual dialysis center training needs.

### ESRD Toolkit Modules

Modules contain PowerPoint slides, facilitator notes, video vignettes, and tools. Each module includes teaching tools and resources to support change at the unit level, presented through facilitator notes that take you step by step through the slides, tools, and videos.

- Creating a Culture of Safety
- Clinical Care
- Using Checklists and Audit Tools
- Patient and Family Engagement

### About the Toolkit Development

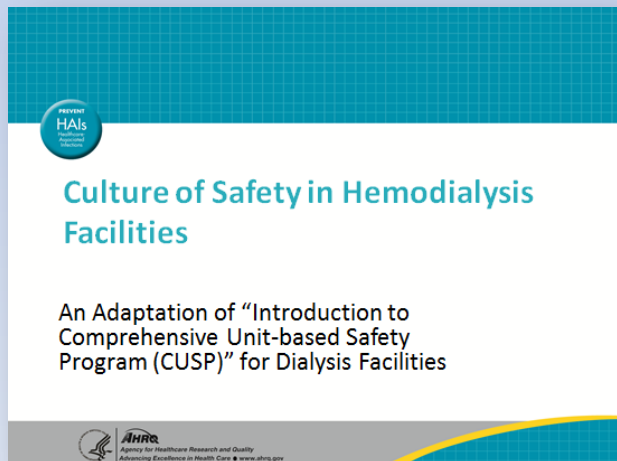
The ESRD Toolkit was developed during a 2-year project called the National Opportunity To Improve Infection Control

<http://www.ahrq.gov/professionals/quality-patient-safety/patient-safety-resources/resources/esrd/index.html>



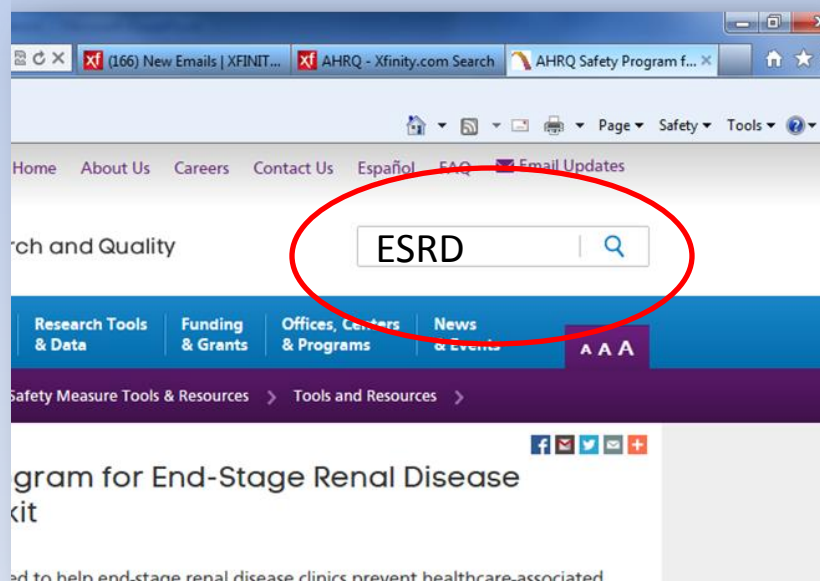
# Toolkit Modules

- Creating a culture of safety
- Clinical Care
- Using checklists and audit tools
- Patient and family engagement



# Website Information

<http://www.ahrq.gov/professionals/quality-patient-safety/patient-safety-resources/resources/esrd/index.html>



Thank you!  
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