

# California Health Improvement Project (CHIP)

## High Value Care in the Safety Net: Implementation of Clinical Decision Support for High Cost Diagnostic Imaging in a Large Public Health System

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### Diagnostic Imaging: Staggering Cost and Inappropriate Use

The overall cost of diagnostic imaging in the US is estimated to be over 100 billion dollars annually, representing over 10% of all health care costs.

- Imaging costs continue to grow at 8-16% a year and an estimated 10-20% of imaging performed is inappropriate or unnecessary.
- The Los Angeles County Department of Health Services (DHS) has had rapid increase in full risk medi-Cal contracts with ACA, and imaging is one of the top 3 drivers of cost.
- Currently DHS has no systematic approach to ensuring appropriate and evidence based use of imaging resources, and costs and demand continue to rise.

Low Value Care  
Inappropriate Imaging  
No Clinical Decision Support



High Value Care  
"Right Study, Right Patient, Right Time"

### Project: Clinical Decision Support for Advanced Imaging

Implement a robust decision support (CDS) tool for selected high cost imaging (MRI, CT, Ultrasound, Nuclear Medicine) along with the DHS electronic health record (EHR) across all sites. This includes tailoring decision support rules to match the DHS evidence based guidelines, and available resources. The project aim is "right study, right patient, right time"

### Project Goals and Objectives

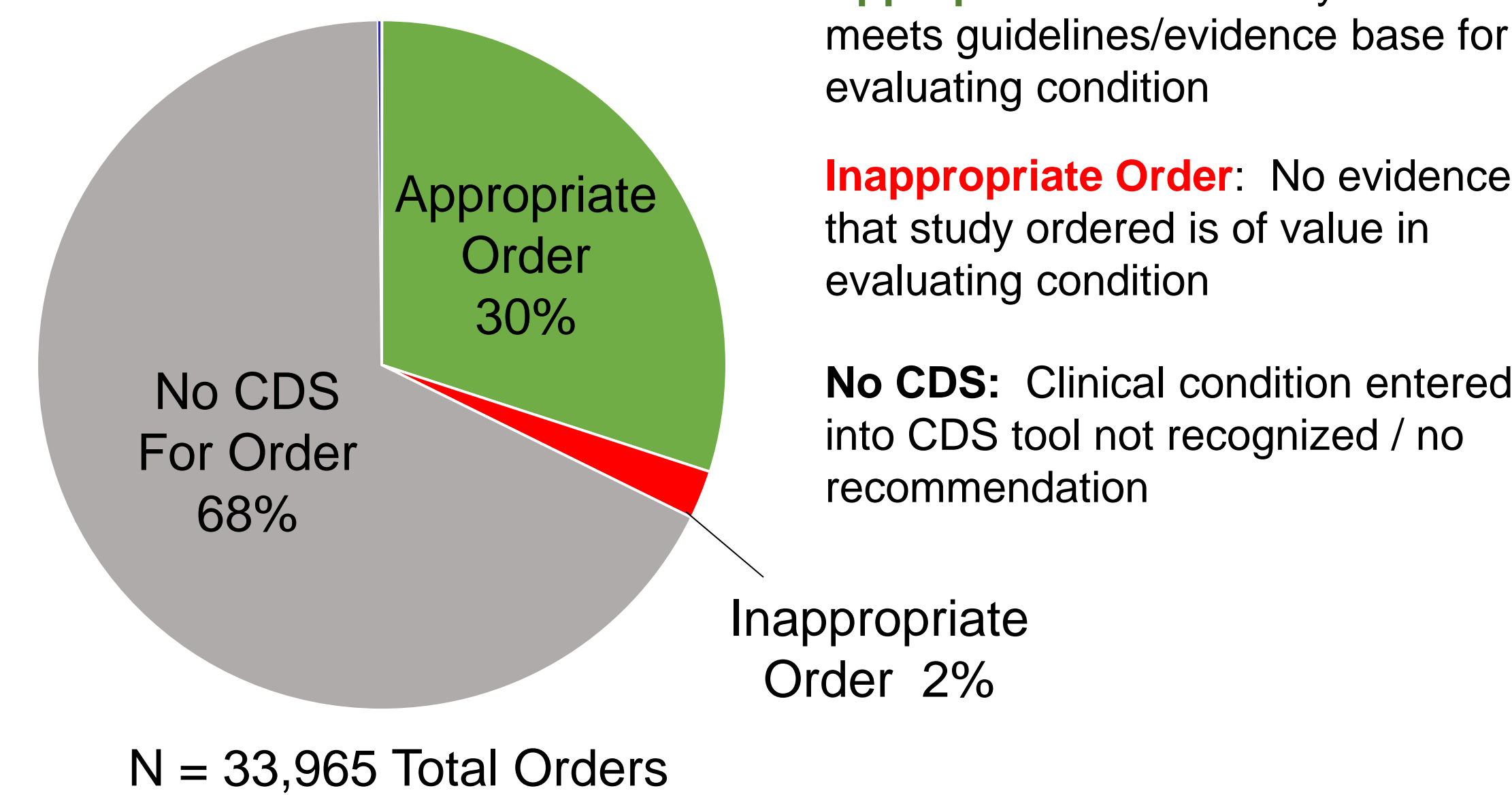
**Goal:** Reduce inappropriate orders of high cost diagnostic and imaging tests performed in the DHS system

**Output-oriented Objective:** Implement enterprise wide CDS tool for high cost diagnostic and imaging studies that is integrated with DHS EHR at pilot sites – including one hospital, one multi-specialty ambulatory care center and 4 community health clinics by June 1, 2015.

**Outcome-oriented Objective:** Demonstrate 10% reduction of inappropriate diagnostic imaging orders at first two DHS pilot sites at 6 month post implementation of CDS tool.

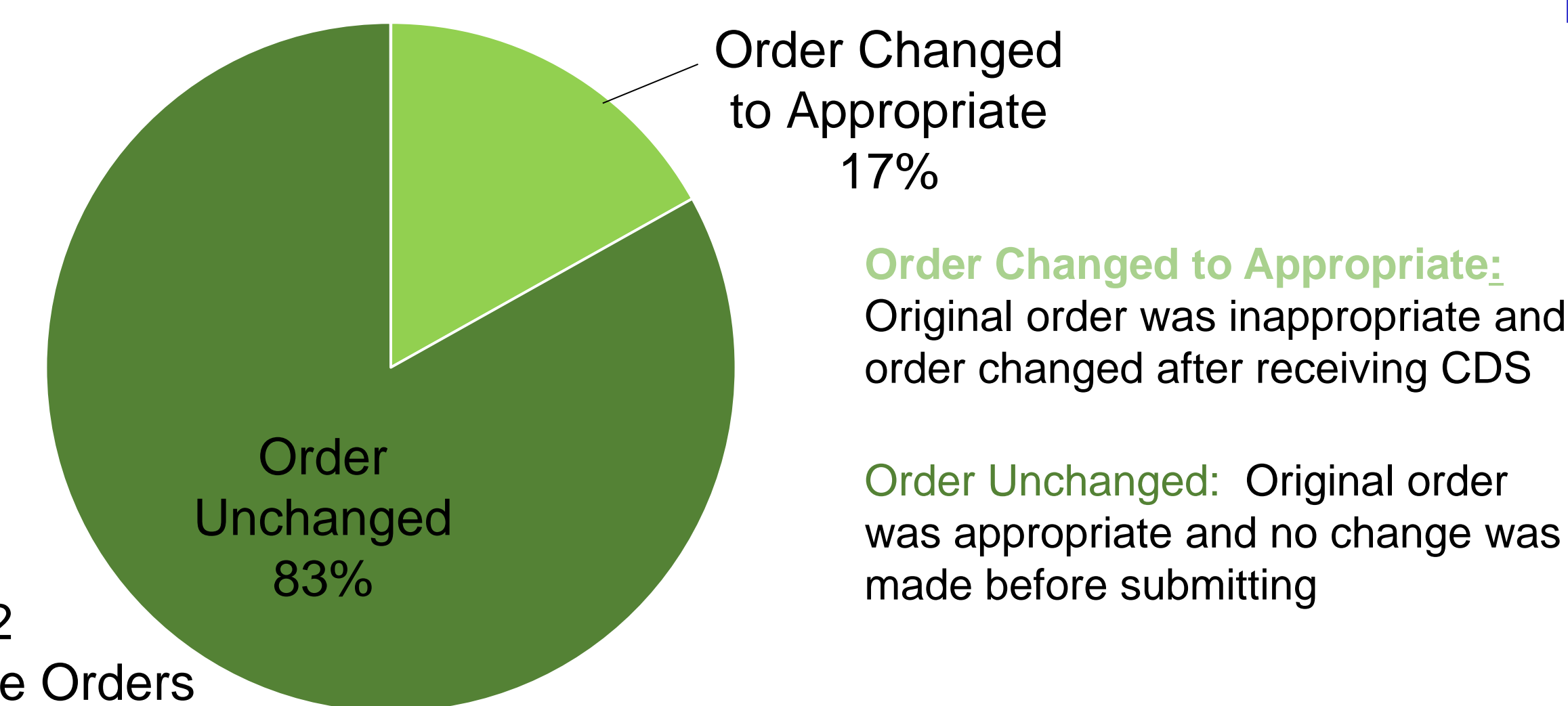
### Outputs & Outcomes

#### Outputs Achieved: Implementation of CDS at Pilot DHS Sites



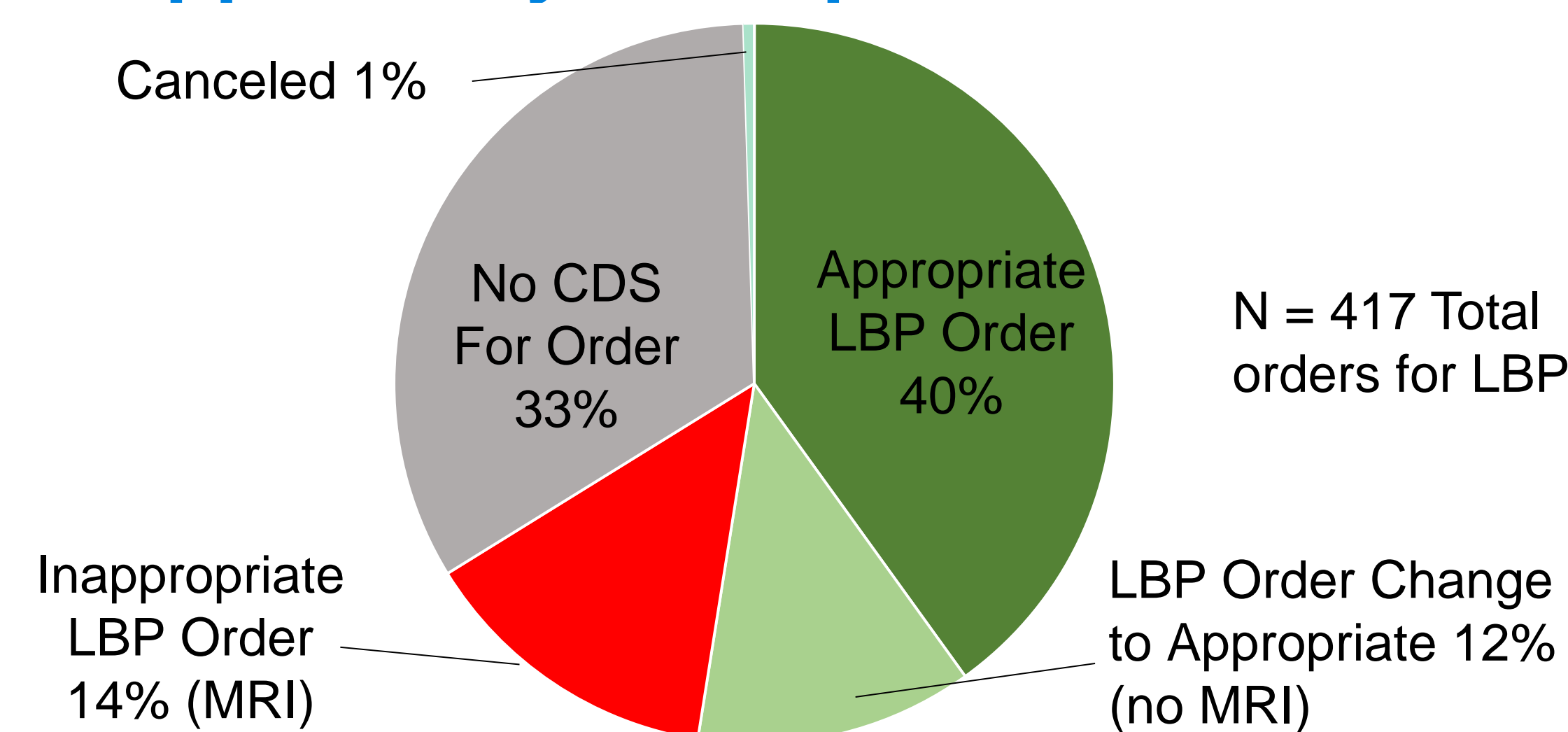
1/3 of imaging orders received CDS at pilot sites Feb-July 2015

#### Outcomes Achieved: "Right Study, Right Patient, Right Time"



17% of 'Appropriate Orders' were the result of feedback from CDS

#### Case Study: Imaging for Low Back Pain (LBP): Opportunity for Improvement & Cost Savings



12% reduction in inappropriate L-spine MRI in 6 mo at pilot sites

- Estimated savings of approximately \$52,000 to date, assuming \$1000 estimated cost/study (prof + technical components)

In 2014 there were a total of 7516 L-Spine MRIs performed across DHS. If CDS results in reduction of 12% over first year, this will result in \$902,000 savings to DHS for this study alone

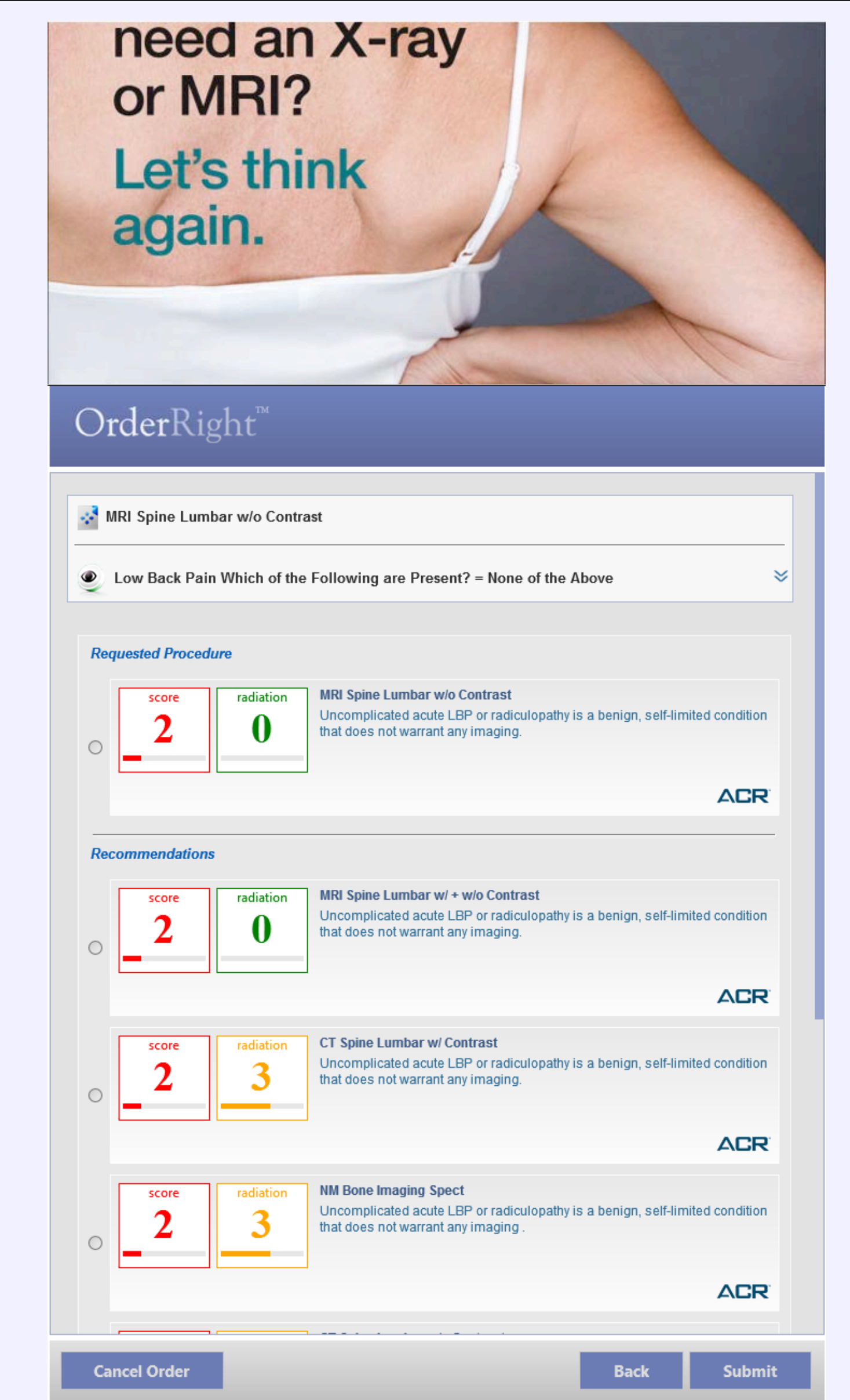
### Lessons Learned

**Start Early:** to optimize CDS coverage, customize it to system and best practices w/ provider input

**Educate:** Electronic CDS alone is not enough – provider education about expected practice and patient education are also needed

**Benefits for ACA:**

- Reducing inappropriate imaging helps financial bottom line with full risk contracts, and can help address access issues/meet standards
- CMS will require CDS for imaging for physician payment starting in 2017



### About LA County Department of Health Services

The Los Angeles County Department of Health Services (DHS) is the second largest health system in the nation, providing care to more than 10 million residents through its integrated system of hospitals and community-based clinics. The mission of DHS is to ensure access to high quality patient centered, cost-effective health care to LA County residents through direct services at DHS facilities and through collaboration with community and university partners.

DHS has an annual budget of \$4 billion with 22,000 employees who provide services to over 1 million LA County residents each year. DHS is comprised of a network of 4 acute care hospitals (Harbor - UCLA Medical Center, LAC USC Medical Center, Olive View - UCLA Medical Center, Rancho Los Amigos) and their associated outpatient services, and 19 community based clinics and comprehensive health centers, spread over the 4000 square miles that comprise LA County.

### Contact Me

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**CHCF HEALTH CARE LEADERSHIP PROGRAM**

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