



How Monitoring Risk Affects Patient Outcomes

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Disclosure

I have no financial disclosures or conflicts of interest

Next Steps

- Returning home to Blanding, Utah to work for Utah Navajo Health Services



The art of medicine consists in amusing
the patient while nature cures the disease

—Voltaire

Healthcare has changed since the time of Voltaire and its evolution continues.

Our next horizon: Value Based Care
and the Accountable Care
Organization (ACO)

What is an ACO?

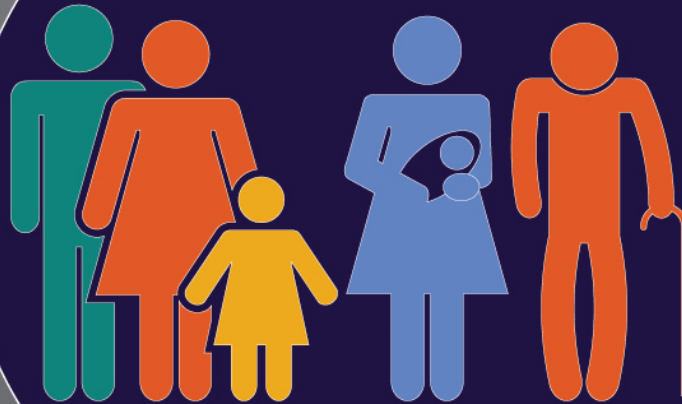
Accountable Care Organizations, (ACOs) are groups of hospitals, providers and community partners who come together, along with a health plan, to improve patient outcomes and reduce health care costs by delivering highly coordinated care.

In an ACO we will help our patients:

Avoid unnecessary trips to the ER

Better manage medications

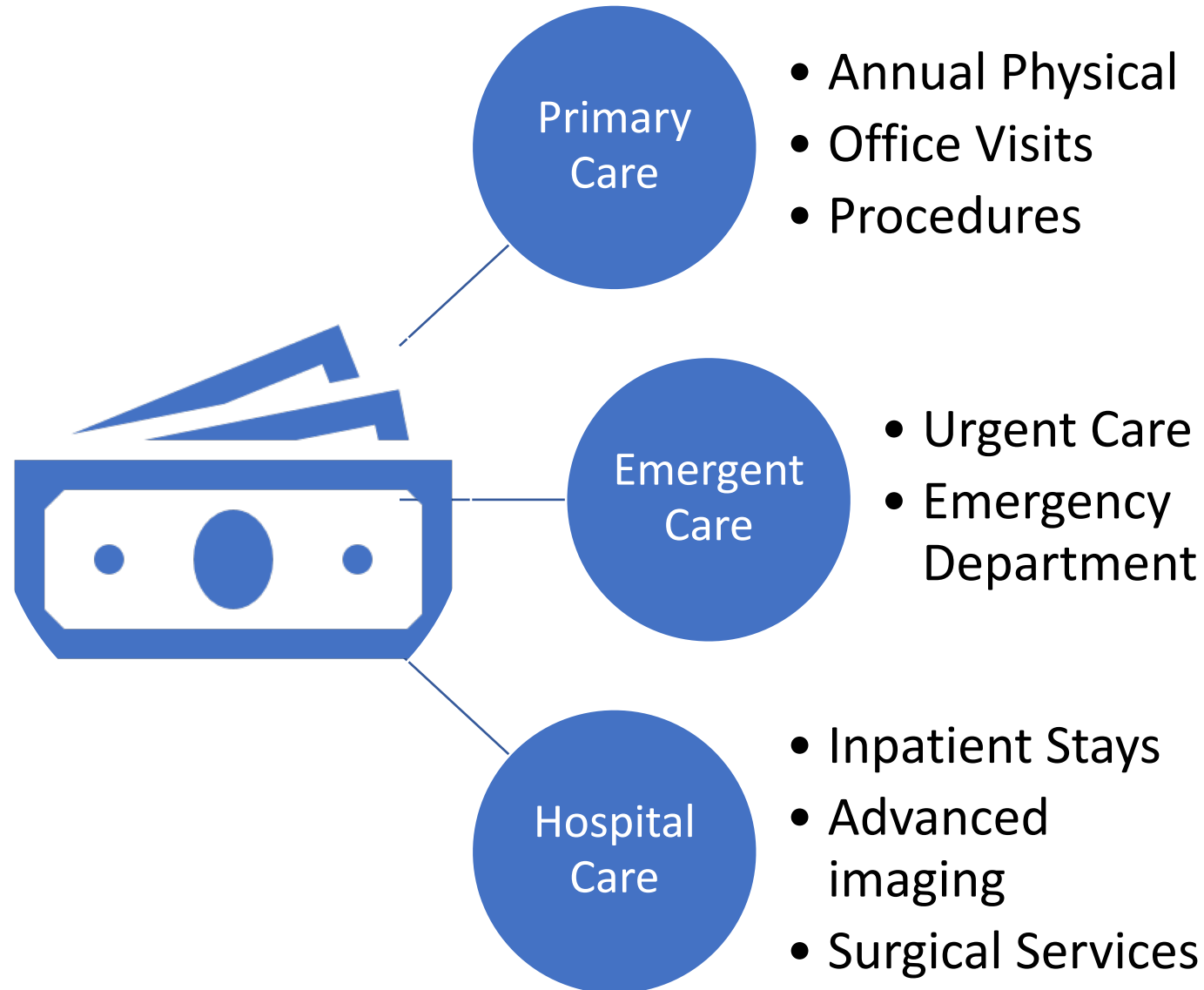
Patients



Address Social Determinants of Health

Reduce preventable hospital admissions

Payment In Accountable Care Organizations



Payment Determination

Risk is the driving factor

Hierarchical Care Conditions (HCC) on a patient's problem list determine level of risk

- These are often addressed at Yearly Physical or Annual Wellness Visits

Emphasis on coding correctly and “capturing” HCCs

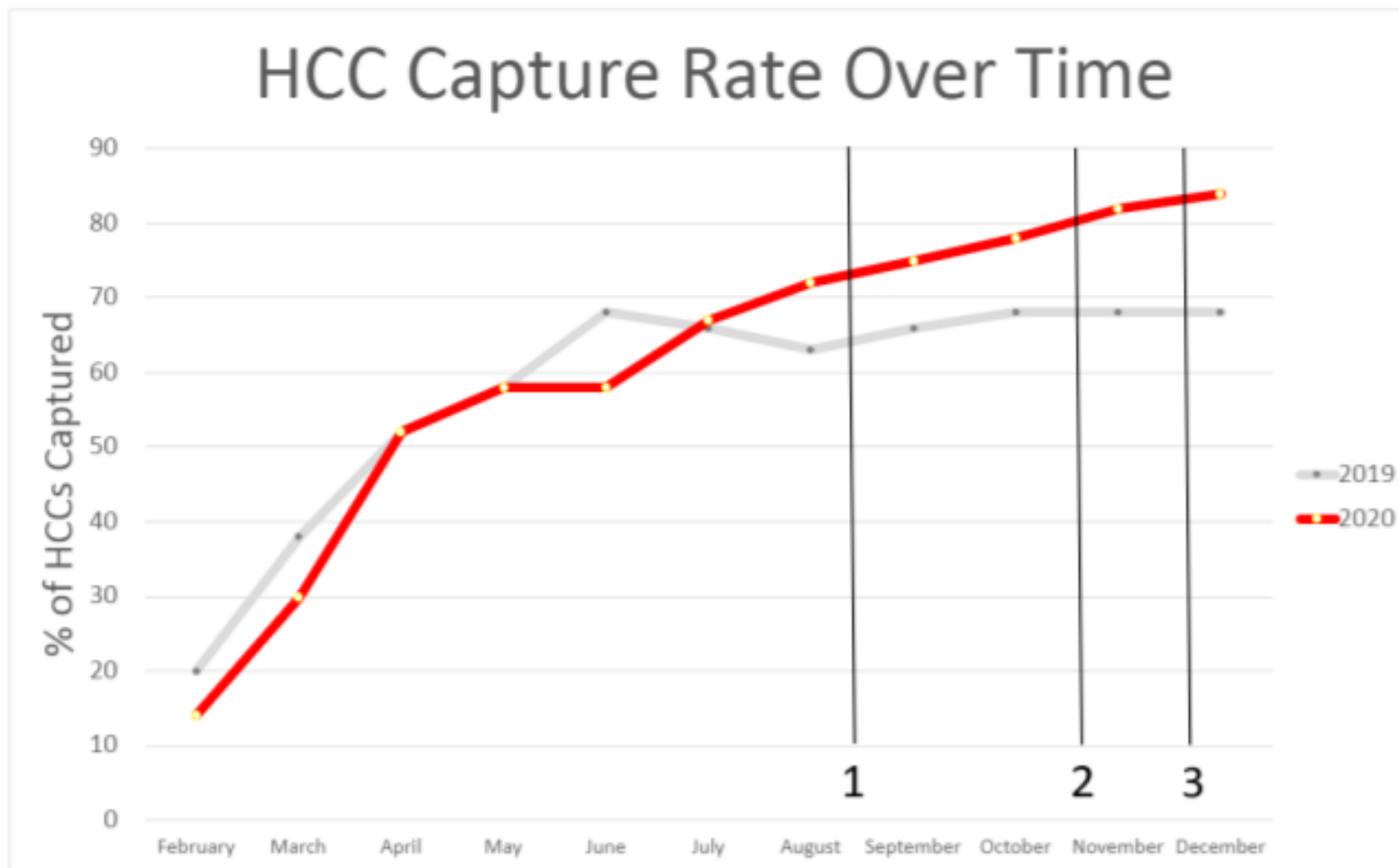
Improving HCC Documentation and Verification at Porter Clinic

Dane Lyman, MD; Clark Madsen, MD; Bryan Campbell, MD; Kelley Gilson MBA-HM

McKay-Dee Family Medicine Residency; Porter Family Medicine Center

Last Year:

RESULTS



1. Dr. Nielsen lectures on Annual Wellness Visits and HCCs;
2. Castell educates on HCC verification process;
3. Castell educates on common HCC misses in our clinic



Let's See How This Works...

Priority	Problem Name	Code	Onset	Classifi...	Actions
1	(HCC) Bronchiectasis, uncomplicated	J47.9 (ICD-10...	--	Medical	<input checked="" type="checkbox"/> This Visit <input checked="" type="checkbox"/> Chronic Resolve
2	(HCC) Chronic kidney disease, stage 3 uns...	N18.30 (ICD-...	--	Medical	<input checked="" type="checkbox"/> This Visit <input checked="" type="checkbox"/> Chronic Resolve
3	(HCC) Cerebellar atrophy	G31.9 (ICD-1...	--	Medical	<input checked="" type="checkbox"/> This Visit <input checked="" type="checkbox"/> Chronic Resolve
4	(HCC) Congestive heart failure (CHF)	I50.22 (ICD-1...	--	Medical	<input checked="" type="checkbox"/> This Visit <input checked="" type="checkbox"/> Chronic Resolve
	(HCC) Blood coagulation disorder du...	--	--	Medical	<input type="checkbox"/> This Visit <input checked="" type="checkbox"/> Chronic Resolve
	(HCC) Depression	--	--	Medical	<input type="checkbox"/> This Visit <input checked="" type="checkbox"/> Chronic Resolve
	(HCC) Diabetes with retinopathy	--	--	Medical	<input type="checkbox"/> This Visit <input checked="" type="checkbox"/> Chronic Resolve
	(HCC) ESRD on dialysis	--	--	Medical	<input type="checkbox"/> This Visit <input checked="" type="checkbox"/> Chronic Resolve
	(HCC) Elevated hemoglobin	--	--	Medical	<input type="checkbox"/> This Visit <input checked="" type="checkbox"/> Chronic Resolve
	Family history of cancer	--	--	Medical	<input type="checkbox"/> This Visit <input checked="" type="checkbox"/> Chronic Resolve
	(HCC) Hamartoma of lung	--	--	Medical	<input type="checkbox"/> This Visit <input checked="" type="checkbox"/> Chronic Resolve
	History of vertebral artery dissection	--	--	Medical	<input type="checkbox"/> This Visit <input checked="" type="checkbox"/> Chronic Resolve
	(HCC) Immunosuppression	--	--	Medical	<input type="checkbox"/> This Visit <input checked="" type="checkbox"/> Chronic Resolve
	(HCC) Lung granuloma	--	--	Medical	<input type="checkbox"/> This Visit <input checked="" type="checkbox"/> Chronic Resolve
	(HCC) Major depressive disorder, rec...	--	--	Medical	<input type="checkbox"/> This Visit <input checked="" type="checkbox"/> Chronic Resolve
	Myalgia, other site	--	--	Medical	<input type="checkbox"/> This Visit <input checked="" type="checkbox"/> Chronic Resolve
	(HCC) On renal dialysis	--	--	Medical	<input type="checkbox"/> This Visit <input checked="" type="checkbox"/> Chronic Resolve
	(HCC) Prostate CA	--	--	Medical	<input type="checkbox"/> This Visit <input checked="" type="checkbox"/> Chronic Resolve
	(HCC) Rheumatoid arthritis of multip...	--	--	Medical	<input type="checkbox"/> This Visit <input checked="" type="checkbox"/> Chronic Resolve
	(HCC) Secondary hypercoagulable st...	--	--	Medical	<input type="checkbox"/> This Visit <input checked="" type="checkbox"/> Chronic Resolve
	(HCC) Seizure	--	--	Medical	<input type="checkbox"/> This Visit <input checked="" type="checkbox"/> Chronic Resolve
	(HCC) Stage 3a chronic kidney diseas...	--	--	Medical	<input type="checkbox"/> This Visit <input checked="" type="checkbox"/> Chronic Resolve
	(HCC) Type 2 diabetes mellitus with...	--	--	Medical	<input type="checkbox"/> This Visit <input checked="" type="checkbox"/> Chronic Resolve
	(HCC) Uncomplicated opioid depende...	--	--	Medical	<input type="checkbox"/> This Visit <input checked="" type="checkbox"/> Chronic Resolve
	(HCC) Unspecified atrial fibrillation	--	--	Medical	<input type="checkbox"/> This Visit <input checked="" type="checkbox"/> Chronic Resolve

► Resolved Chronic Problems

The Quandary

Does clicking the button in the EMR lead to better outcomes?

Are we simply jumping through hoops?

The art of medicine consists in distracting the physician with menial tasks while nature cures the disease and someone else makes money

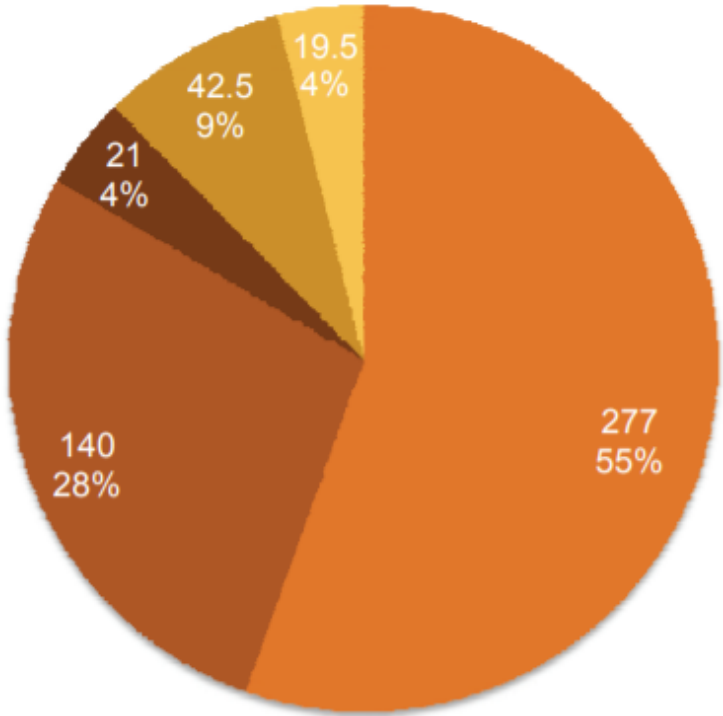
—Anonymous PGY-3 at McKay Dee fm residency



“The White Paper”

- Written by Humedica
 - Clinical Analytics firm in Boston, MA
- Analyzed data using a pool of 4M patients from all over the USA cared for by 26 different medical groups
- Assessed the effect of accurate coding and risk monitoring on patient outcomes

EXAMPLE: In a typical 500K patient practice...



Uncoded patients*

- No DX code and not on problem list
- Evidence of condition via RX, lab, ejection fraction
- Results in subpar outcomes
- Results in missed revenue

37% of patients with a major chronic condition are uncoded

- Patients without evidence of 1+ major chronic condition
- Fully-coded for all conditions with evidence
- Uncoded, RX evidence
- Uncoded, other evidence*
- Uncoded, Rx + other evidence

Note: Only accounts for patients with evidence of DM, CHF, CAD, HTN, DYS. An 'uncoded' patient is not coded for 1 or more of these conditions. 'Other' evidence = clinical results. Based on pre go-live data from 4M+ active patients in 5 chronic condition cohorts, from 26 medical groups. Prevalence of chronic conditions based on current state.

Figure 1: Typical provider group has significant uncoded patient population

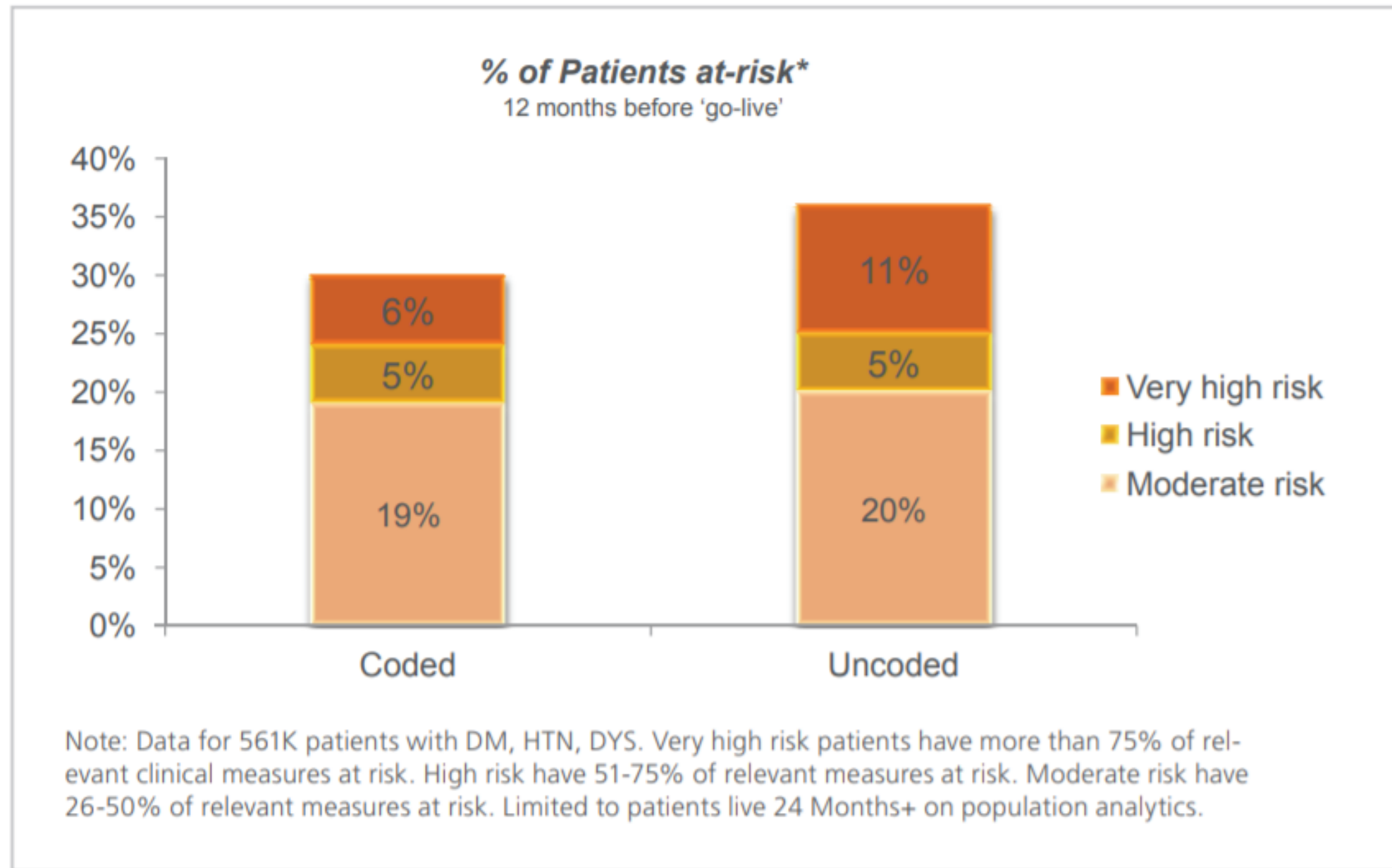
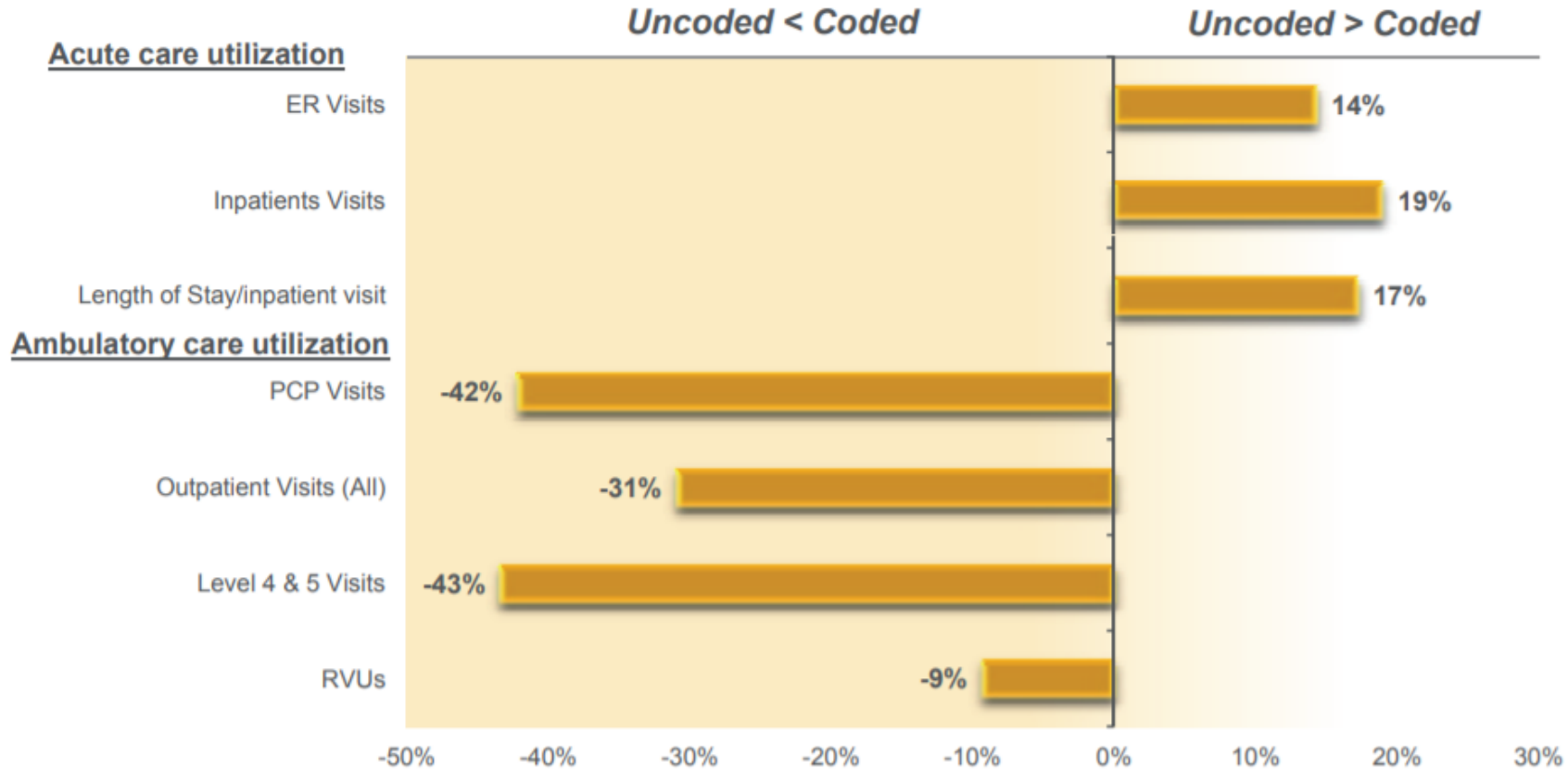


Figure 4: Uncoded patients tend to be more at-risk

Uncoded vs. coded patient utilization*

Comparison 12 months before 'go-live'

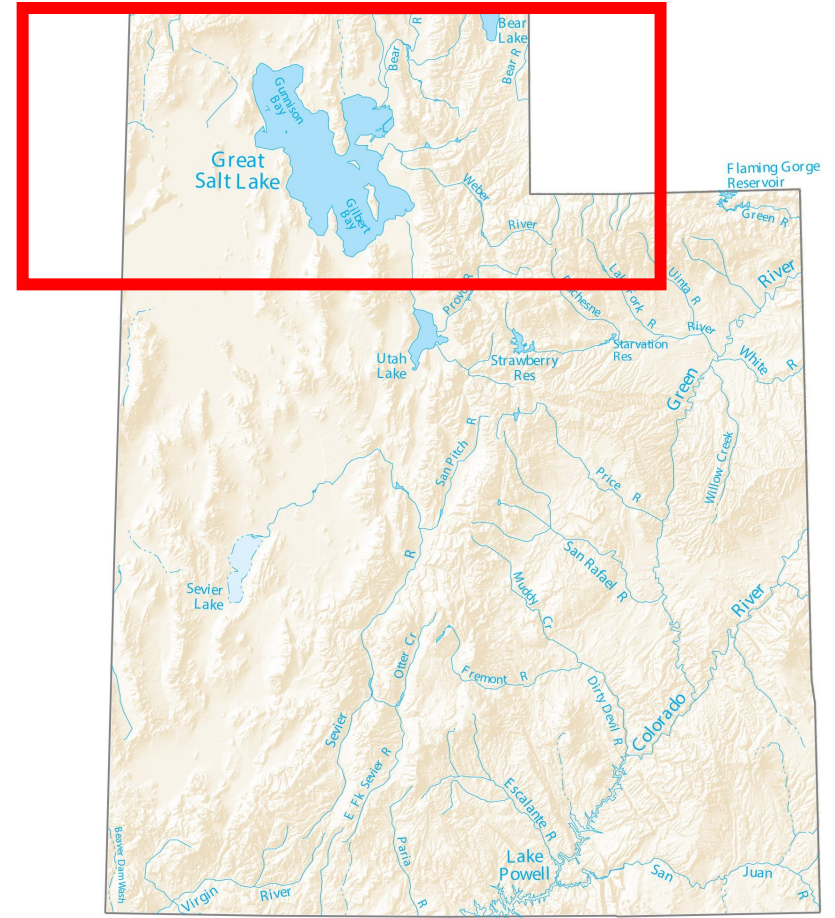


Note: Data based on utilization prior to go-live for 561K active patients in 3 chronic condition cohorts (HTN, DYS, DM). Compares average utilization rates for coded versus uncoded patients in the 12 months before go-live on population analytics. Limited to patients live 24+ months on population analytics. P-value <.0001.

Figure 5: Uncoded use less ambulatory care, more acute care

Assessing Similar Metrics in Our Area

- Used a patient pool of 1,380 patients from the North Region of Utah
- All patients had Medicare
- Data pertained to a 12-month period
- Outcomes measured
 - ER visits
 - Code Verification
 - Annual Wellness Visits



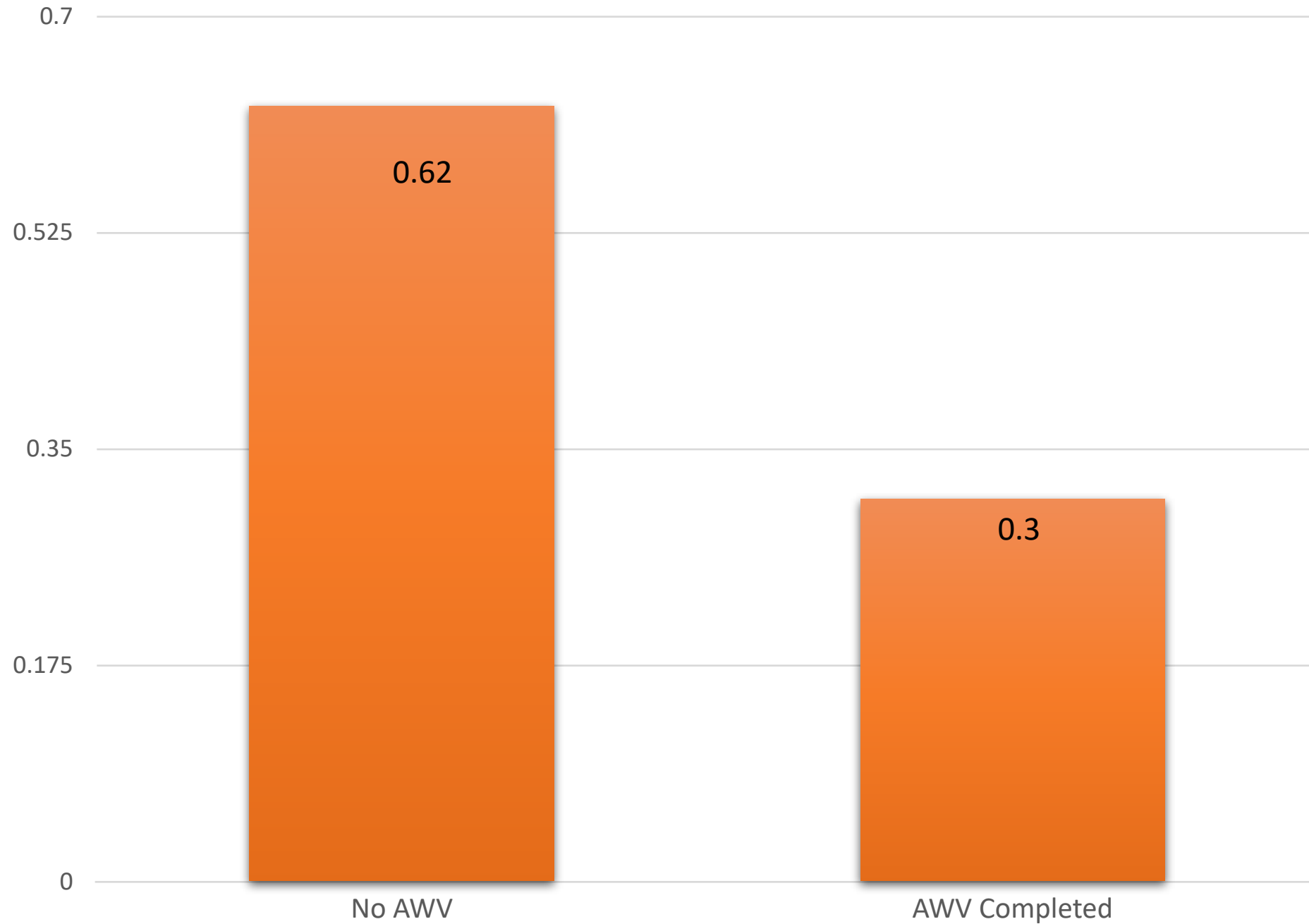
Baselines
from Our
Pool



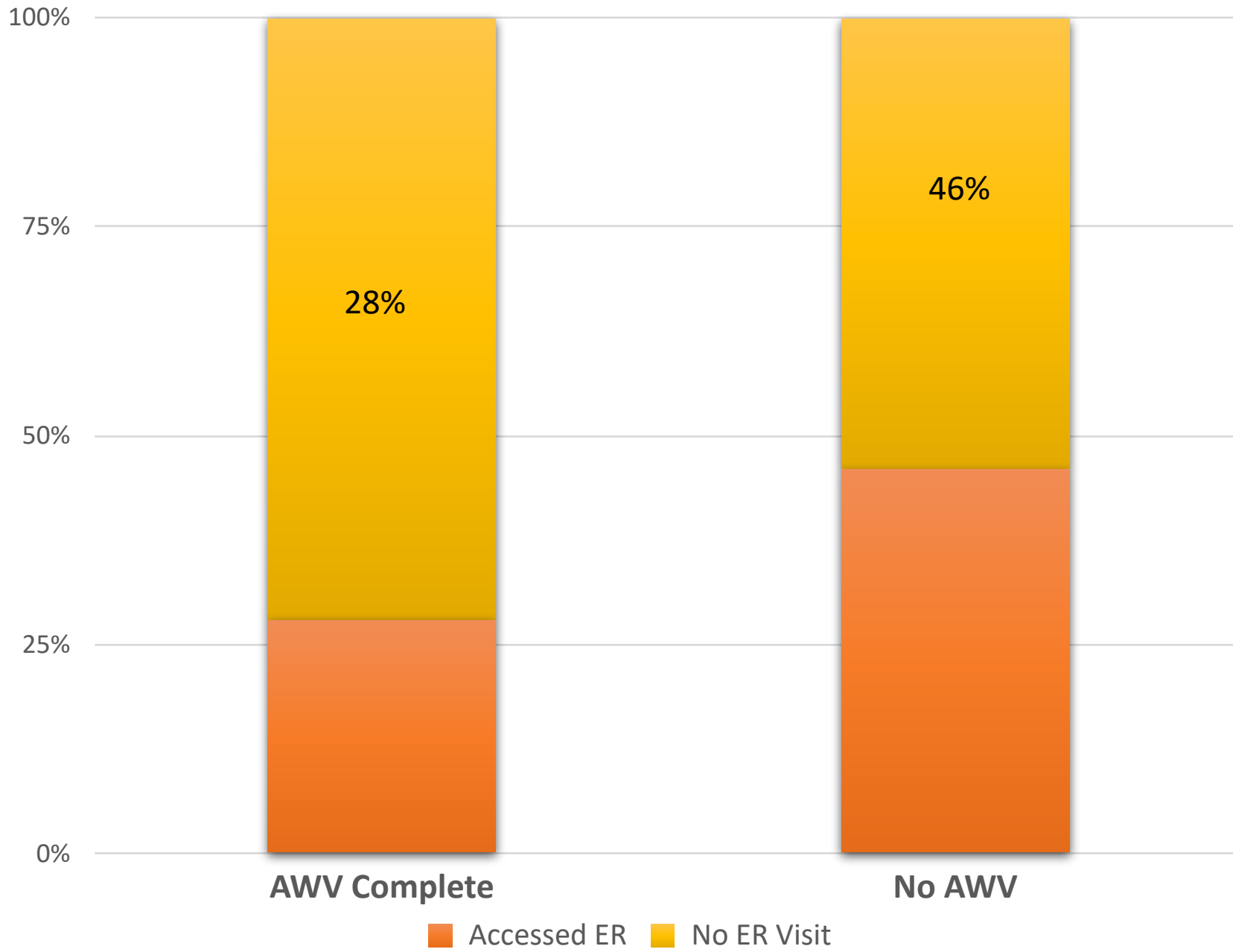
Baselines
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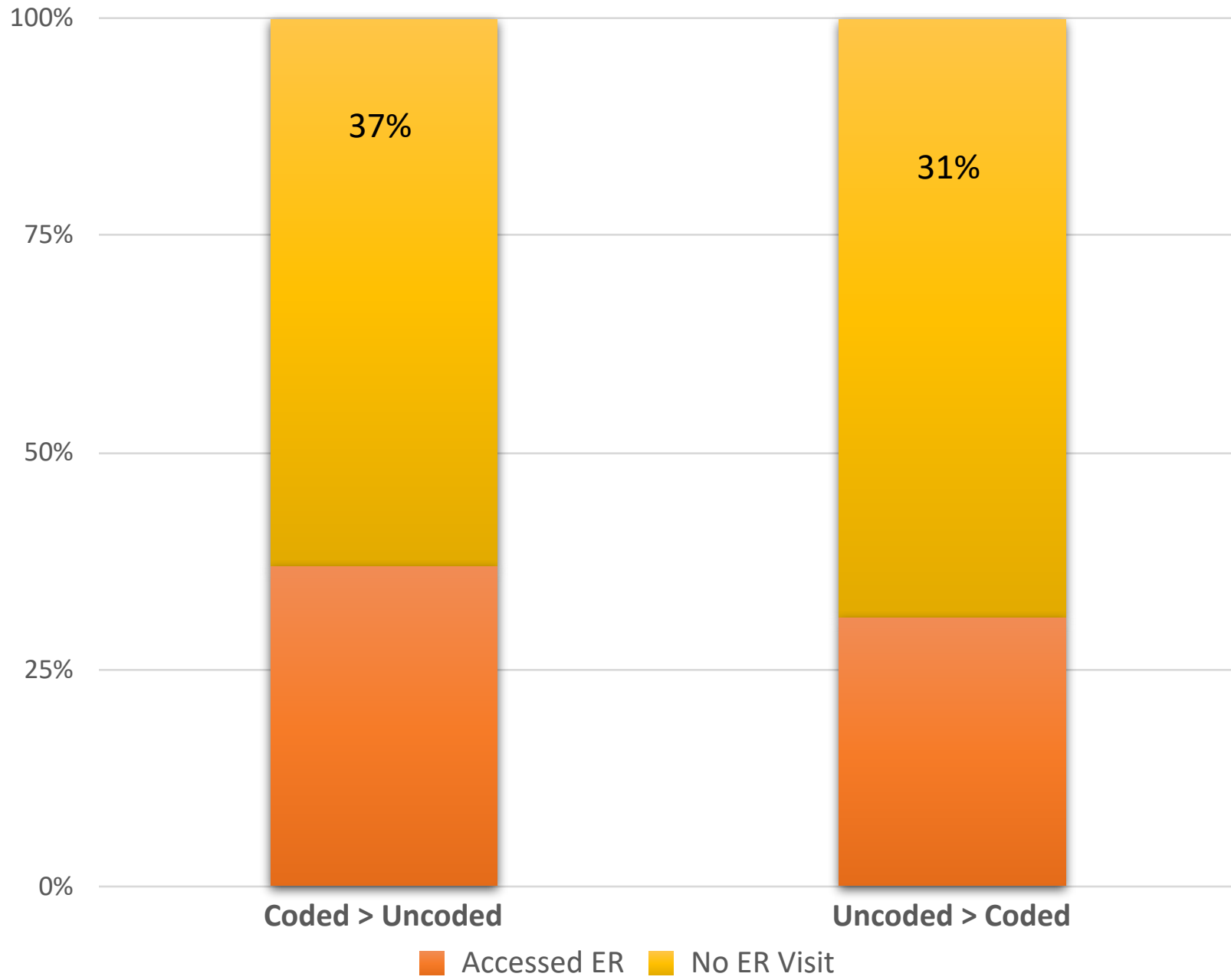
Per Patient ER Visit Rate by AWWV Completion Status



Completion Status



Percent of Patients Who Accessed ER in 12 months by Coded Status



Key Takeaways

- Annual Wellness Visit completion does correlate with fewer ER visits
 - Fewer ER visits would result in lower costs and more savings to the system and potentially increased income for the physician
- Coded risk did not, in our pool, correlate with fewer ER visits
 - The 12 months evaluated was in the midst of the COVID-19 pandemic which may be a confounding factor
 - “Coded” does not mean healthy, it insinuates the contrary

Conclusions

- Are we simply distracting ourselves by turning red text on a Problem List black and capturing HCCs as opposed to truly caring for our patients?
 - Probably not
- A balanced approach of accurately coding and capturing HCCs while providing competent care is the best way forward
- A good case for Annual Wellness Visits – Making a Difference
- Moving forward: continue to monitor these metrics and increase our sample size

Acknowledgements and Thank You

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