



SGIM 2008

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REDUCING DISTORTION IN QUALITY MEASUREMENT IN PRIMARY CARE

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Overview and a promise

- The **measurement of Quality** involves many different factors, from health care delivery to patient goals.
- **Techniques** for measuring quality may produce different *results* in the same system.
- A **comparison of techniques** demonstrates differences in intermediate outcomes for patients with diabetes.
- A **promise**: You will have the knowledge to weigh these different techniques for you and your patients.

Hypothesis

- Creating longitudinal quality measurements that reflect the cognitive processes of primary care teams will show improvement over cross-sectional measurements
- Or, tying a measure to *how you think* will look better to you
 - (will it be better for everyone?)

Background

- Quality measurement is increasing in scope and prevalence
 - CMS creates a national performance payment
 - Over 50% of providers report contracting on quality
- Quality measurement is imprecise
 - More carefully worded than guidelines but not sufficient to assure reliability.
- (Baker)
- (Baker)

Design: 11 measures in 704 patients with diabetes

HbA1c test performed every six months

LDL test performed yearly

Microalbumin test performed yearly

Influenza vaccine administered yearly

Pneumovax given at least once during study period

Eye exam (with dilation) completed yearly

Patient on ACE Inhibitor or Angiotensin Receptor Blocker (ARB)

Patient set one or more self-management goals in the last year

Last HbA1c was less 7.0%

Last LDL < 100

Average of up to 3 BPs done in the last year < 130/80

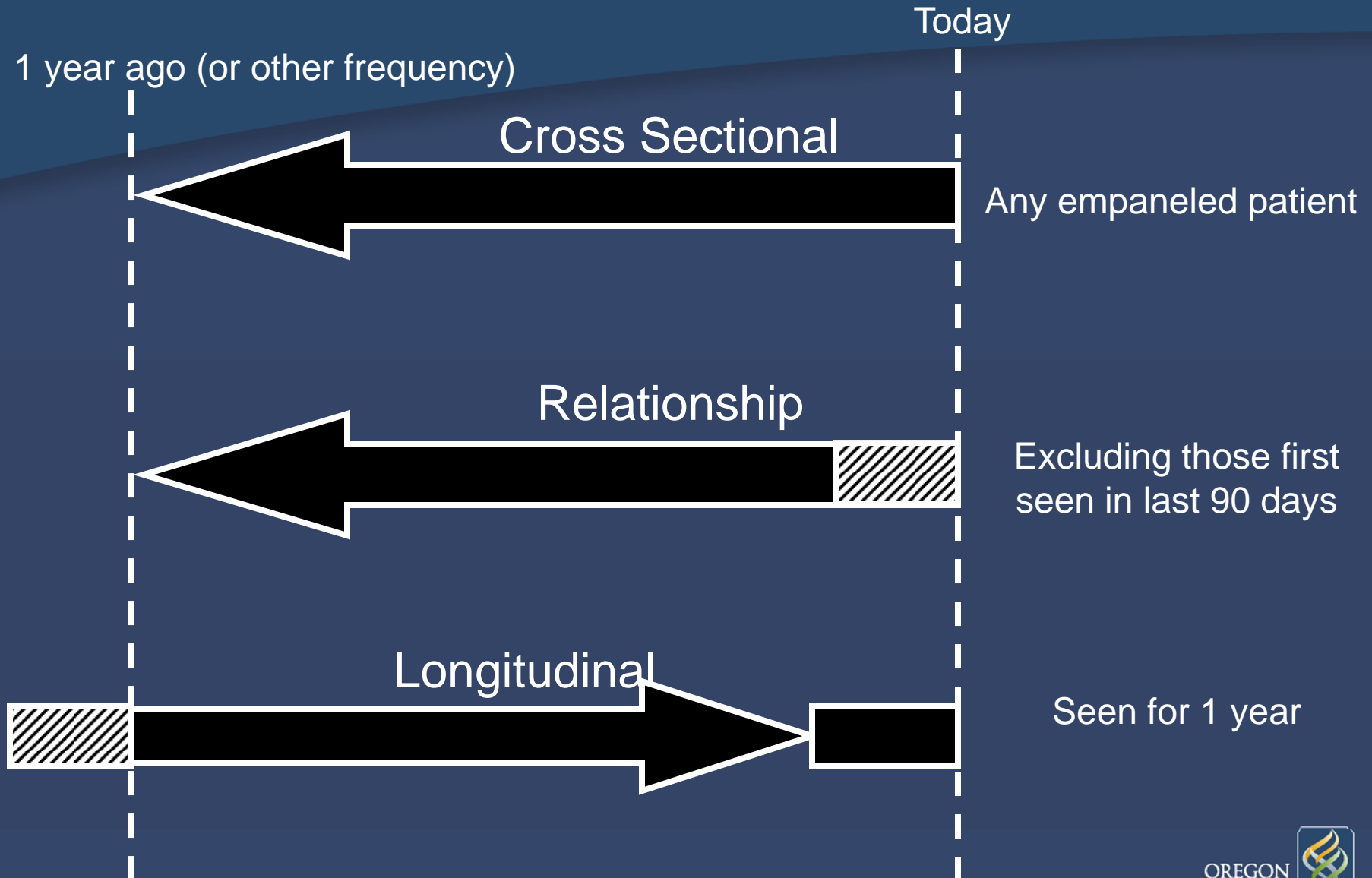
Process

Goal

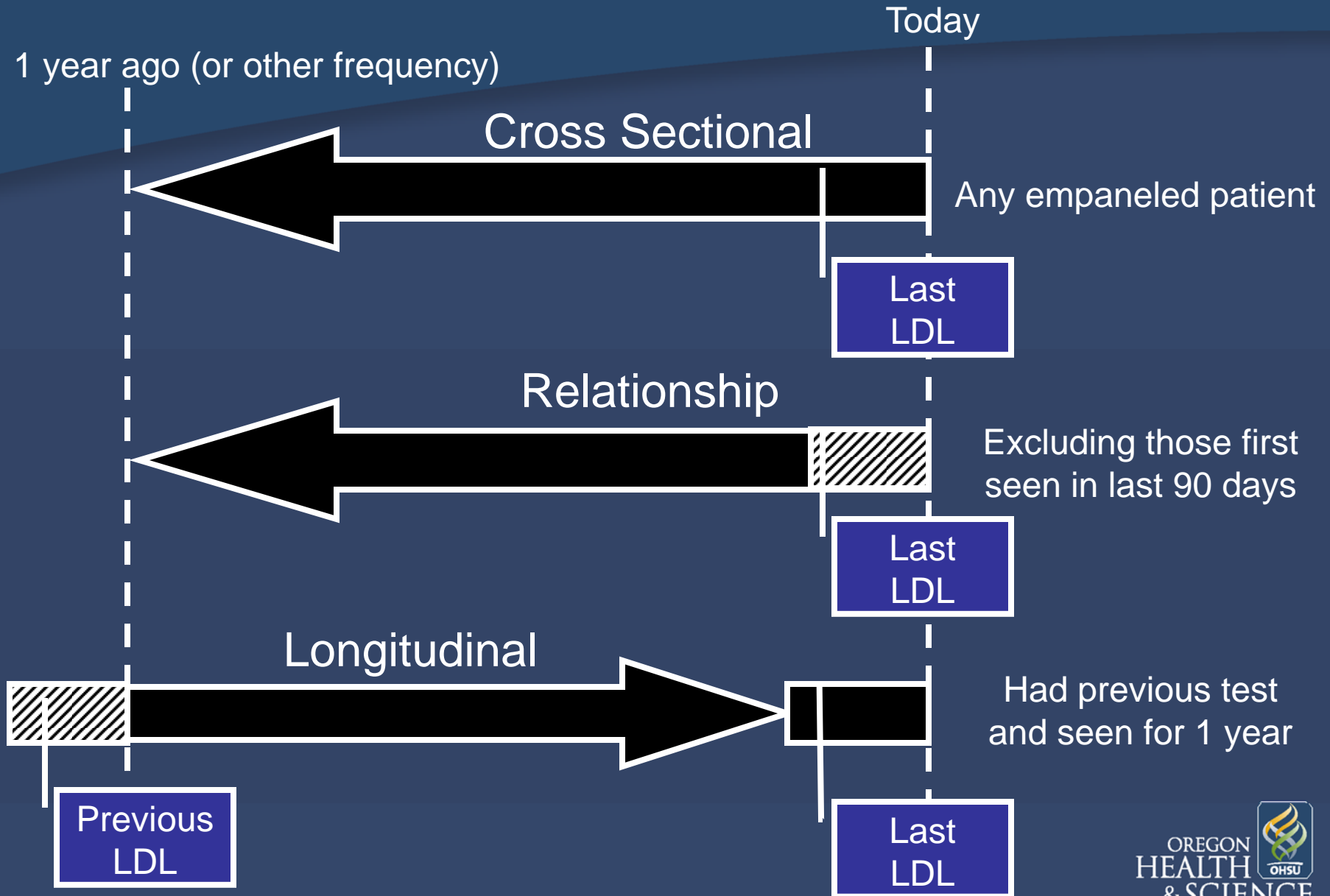
Outcome

All approved by AQA, NQF, or on qualitymeasures.ahrq.gov

Design: test different techniques - process



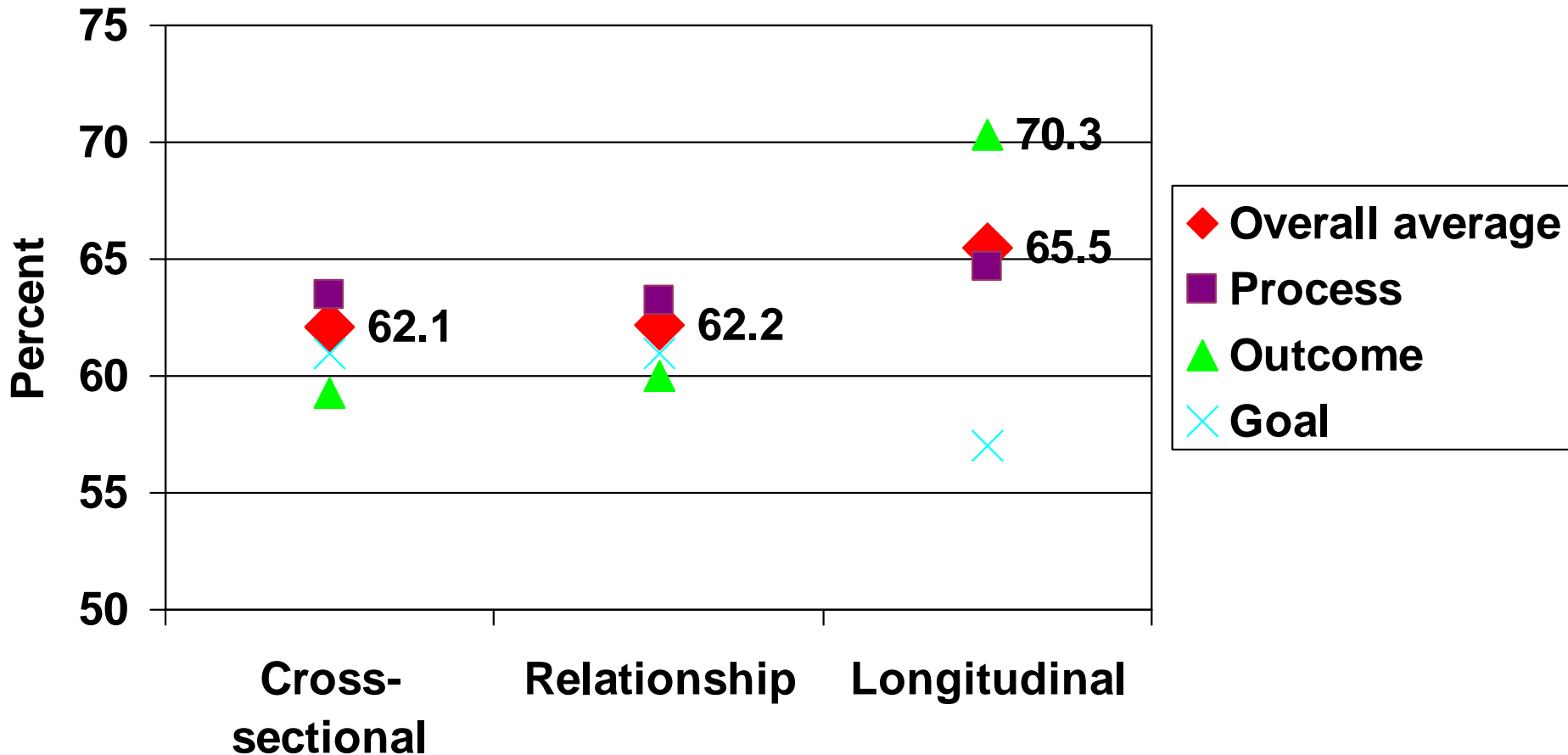
Design: test different techniques - outcome



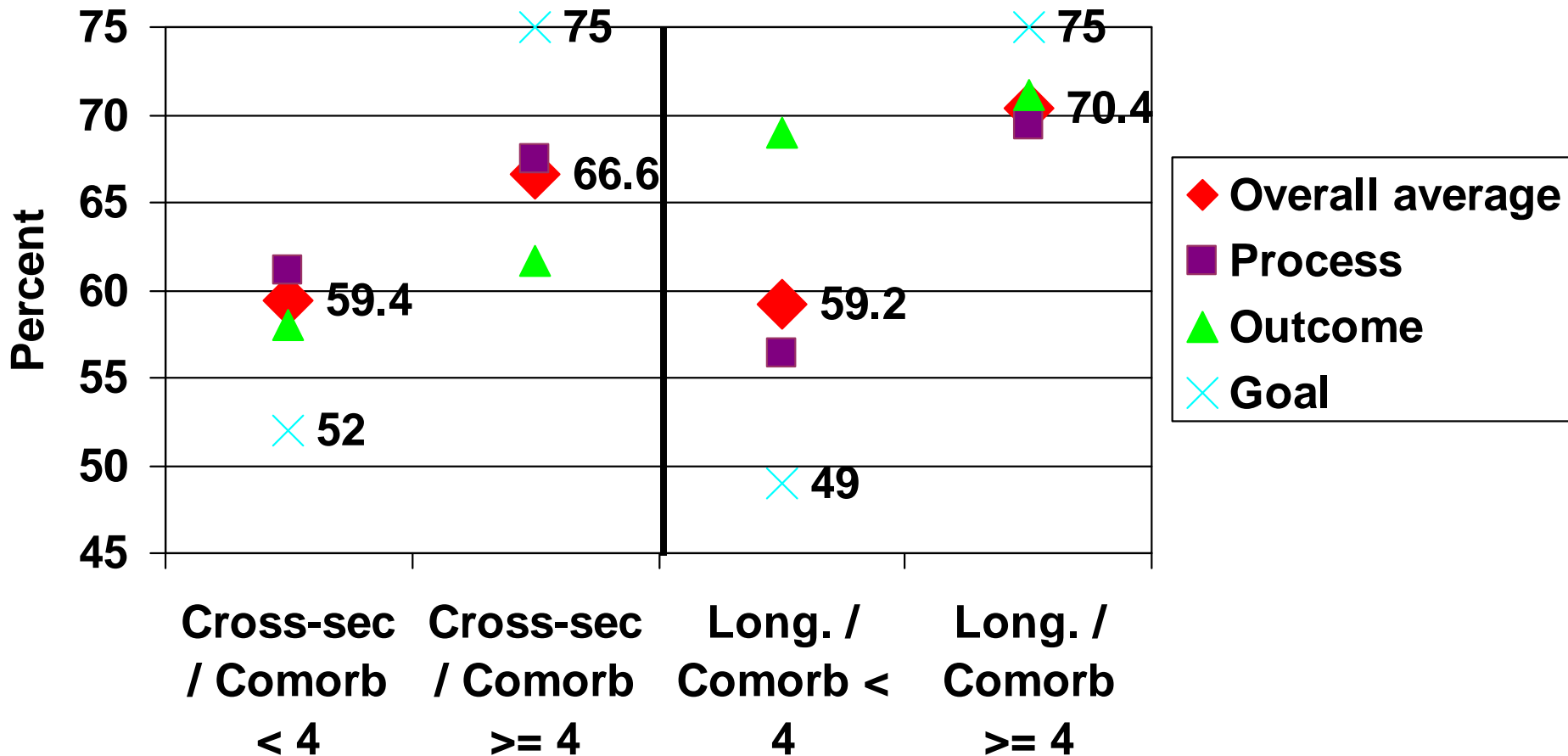
Population, setting, and analysis

- Population: 707 patients with diabetes
- Setting: academic health center
- Analysis
 - Chi-square tests of significance
 - Analysis 1: between techniques
 - Analyses 2-4: stratification
 - Comorbidity score (adjusted Charlson) ≥ 4
 - Goal setting (Yes vs. No)
 - Language spoken at home (English vs. other)
 - Also examined *number excluded*

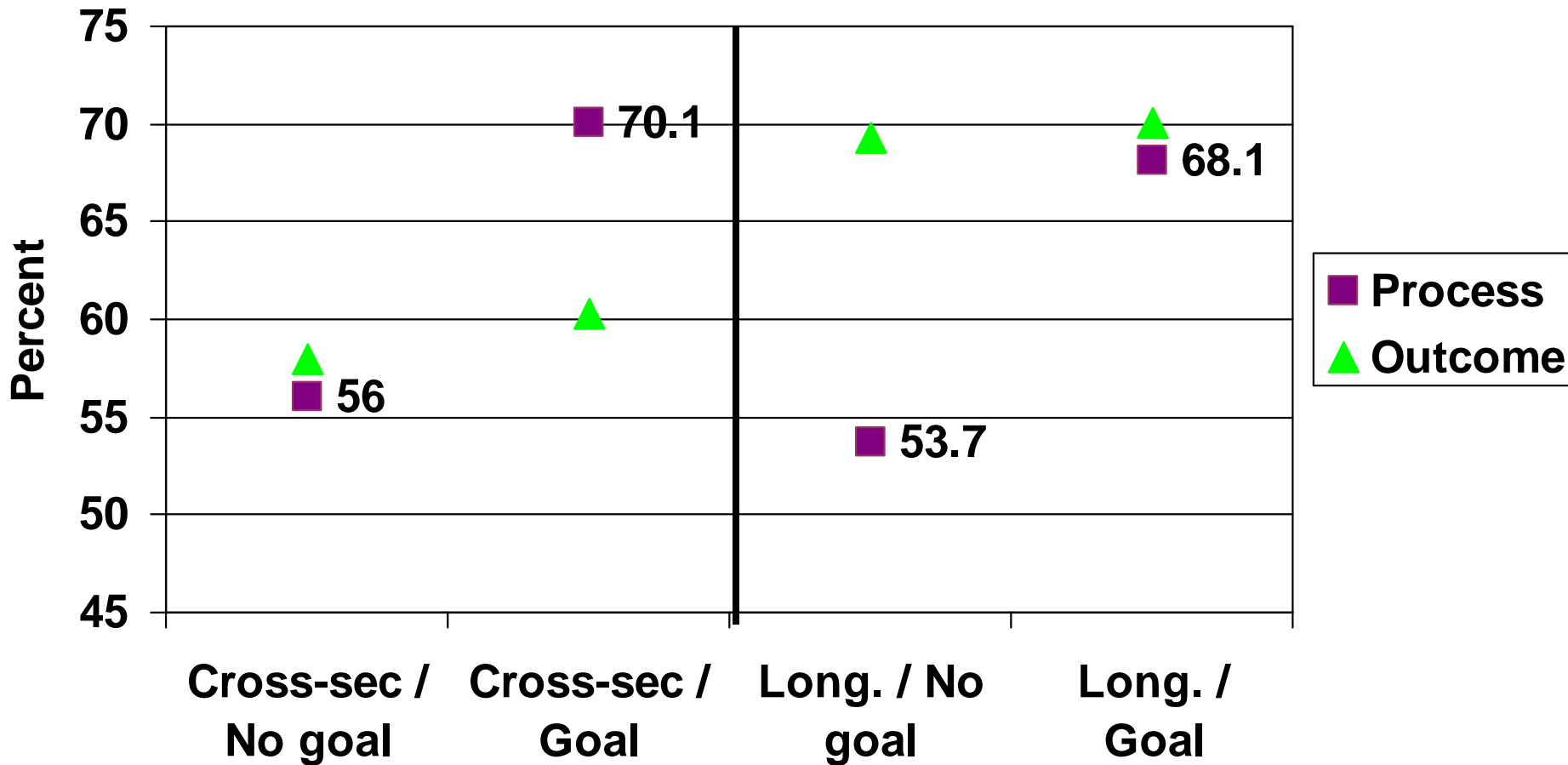
Overall results show a trend of improvement in longitudinal method.



A higher comorbidity score is associated with improved process and goal measures.



Goal setting (a kind of process measures) is associated with higher process measures.



As was speaking english versus another language
except for HbA1c – non-english speakers had slightly better HbA1c

Longitudinal looks good except ...

- Longitudinal exclusions : 96 (15.8%)
- Relationship exclusions : 22 (3.2%)
- What is the effect of *excluding* people?
 - Bias versus opportunity

Reducing quality measurement distortion for providers / primary care teams

- For *process measures*, no technique was better than any other.
- Goal setting, language=english, and higher comorbidity score improved measurements.
- A *longitudinal* approach may be better for *accountability* for outcomes.
- *Exclusions may limit* the internal population management benefits of longitudinal measurement.

Thank you and Questions?

Team

- Kelli Radican
- Hanh Tran
- Rachel Burdon
- Meena Mital, MD