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Clinical Safety & Effectiveness
Cohort 19 Team #13

Improving Adherence to Antidepressant Medications in the Acute Treatment Phase

CENTER FOR PATIENT SAFETY & HEALTH POLICY
UT HEALTH SCIENCE CENTER™
SAN ANTONIO

The Team

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  - South Texas Veterans Healthcare System

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Project Milestones

• Team Created	8/2016
• AIM statement created	9/2016
• Weekly Team Meetings	8/30/16-present
• Background Data, Brainstorm Sessions, Workflow and Fishbone Analyses	8/30/16-9/20/16
• Interventions Implemented	10/24/16-12/23/16
• Data Analysis	12/26/16-12/30/16
• CS&E Presentation	1/13/2017

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Background

- In 2015, an estimated 16.1 million adults aged 18 or older in the United States had at least one major depressive episode in the past year. This number represented 6.7% of all U.S. adults

National Institute of Mental Health. Major Depression Among Adults. Available at https://www.nimh.nih.gov/health/statistics/prevalence/major-depression-among-adults.shtml.[4]

Background

- According to the American Psychiatric Association, improvement of depressive symptoms when treated with an antidepressant may be observed as early as the first 1–2 weeks and continue for up to 12 weeks
- Literature suggests that a longer treatment duration may increase the proportion of patients who will achieve response or remission

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American Psychiatric Association. Practice Guideline for the Treatment of Patients With Major Depressive Disorder, Third Edition, originally published in October 2010.
Keller MB, Gelenberg AJ, Hirschfeld RMA et. al. The treatment of chronic depression, part 2: a double-blind, randomized trial of sertraline and imipramine. *J Clin Psychiatry.* 1998; 59(11): 598-607.

Background

- **Strategic Analytics for Improvement and Learning** (SAIL) measure
  - VA specific learning tool for continuous improvement
- **Health Effectiveness Data and Information Set** (HEDIS) measure - Antidepressant medication management (effective acute phase treatment)
  - Measure used to assess the percentage of patients 18 years of age and older who were treated with antidepressant medication, had a diagnosis of major depression and who remained on an antidepressant medication for at least 84 days (12 weeks)

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U.S. Department of Health and Human Services . Agency for Healthcare Research and Quality. Available at: https://www.qualitymeasures.ahrq.gov/summaries/summary/49729.

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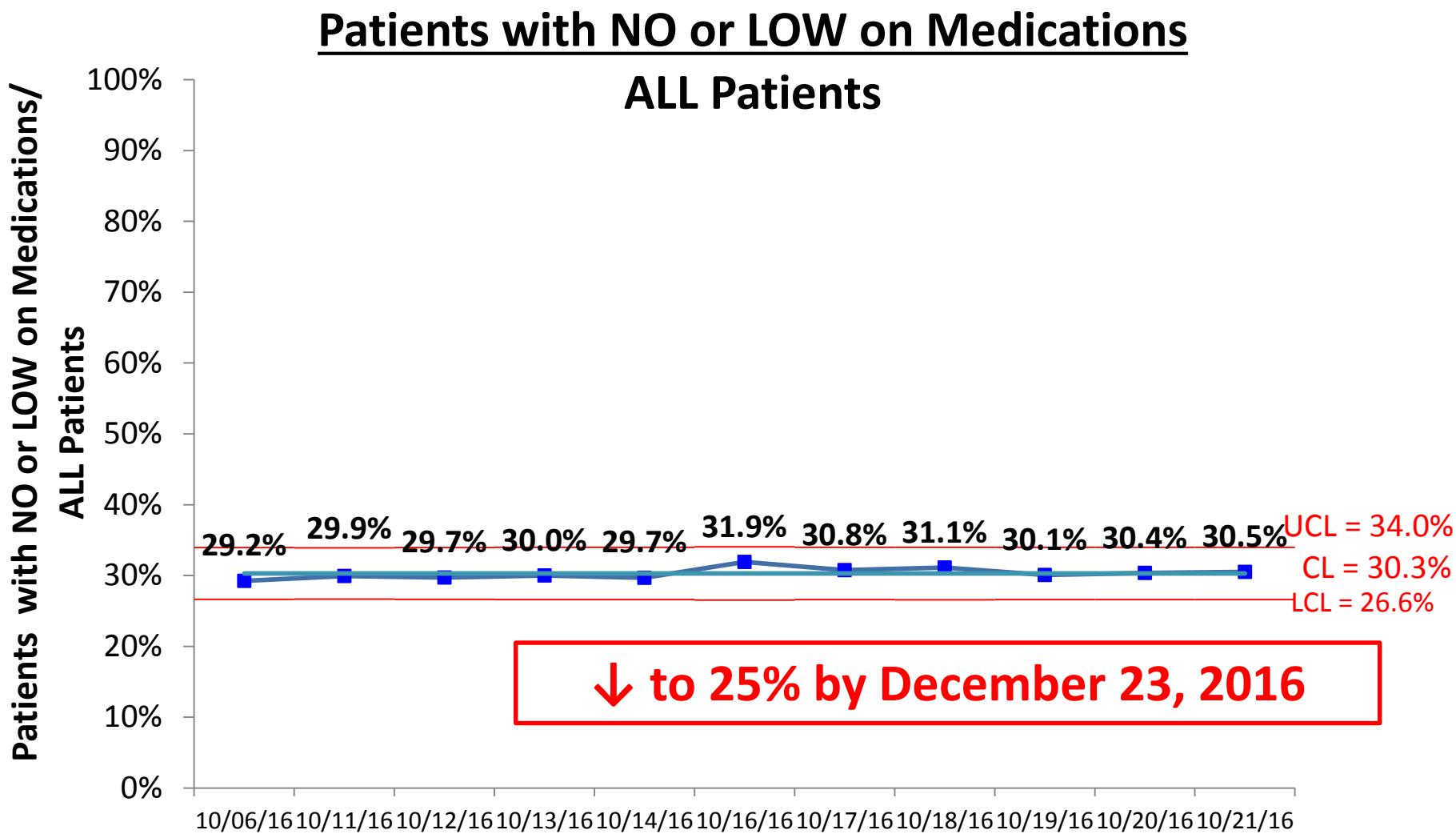
AIM Statement

To reduce the percentage of patients diagnosed with depression who are non-adherent to antidepressant therapy during acute phase of treatment with a goal of 25% by December 23, 2016.

Baseline Process Control Chart



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How to Improve

- Patients at risk of failing the measure
  - Non-possession days > 30 during the 115 day period
  - Medication possession ratios (MPR) < 60%
- *If we can keep patients out of these 2 groups, we will improve our outcome on this measure*

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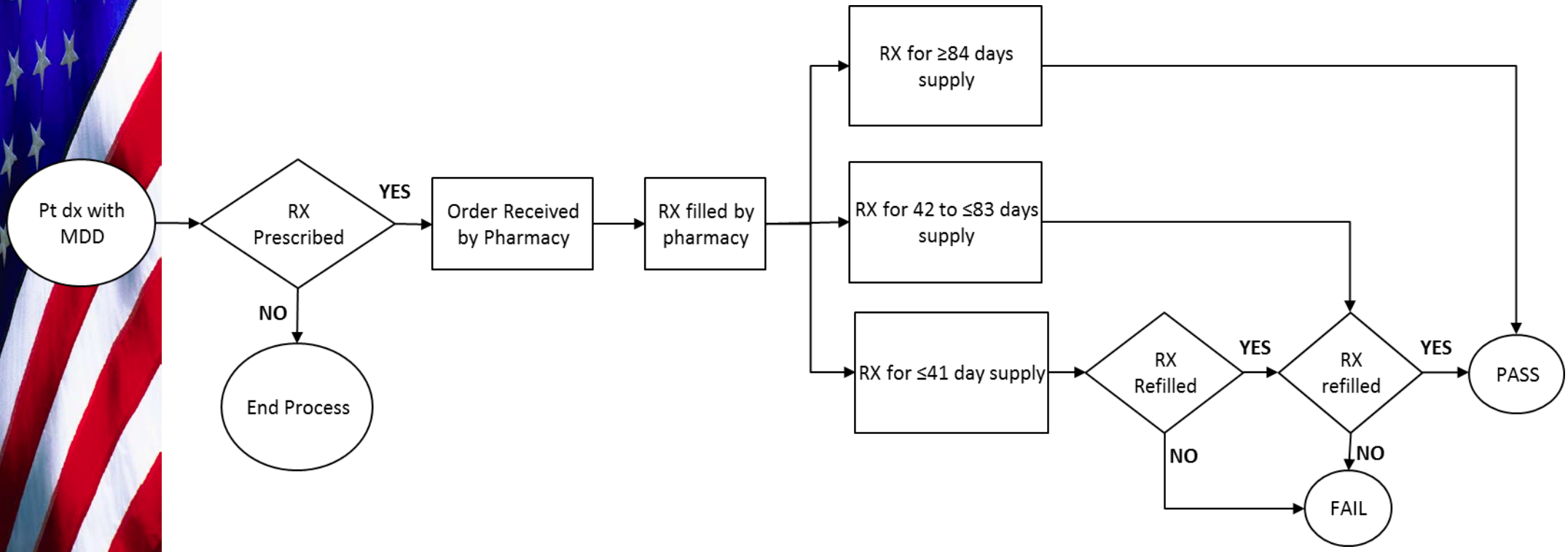
Process Flow



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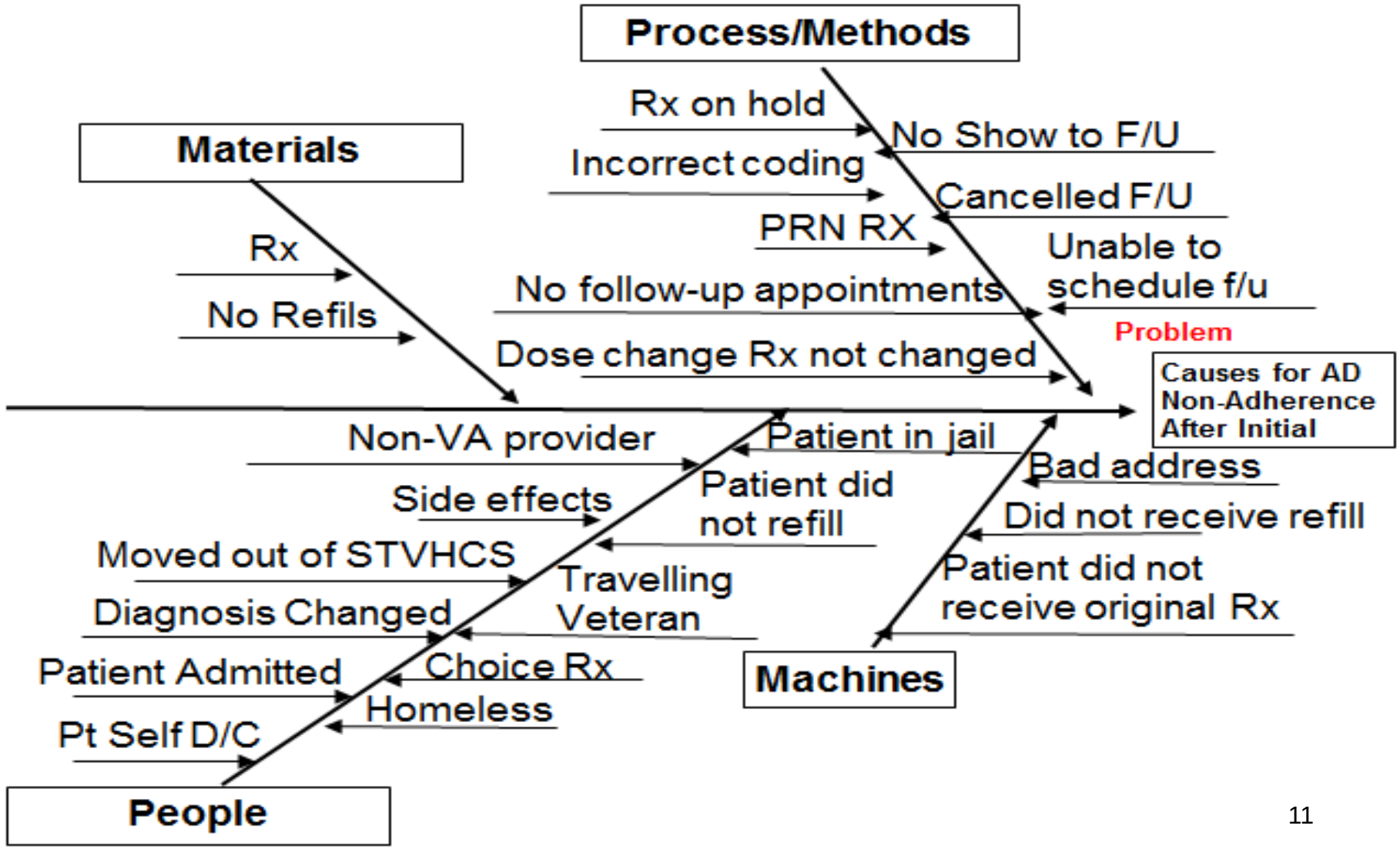
Cause and Effect Diagram for Non-Adherence After Initial RX



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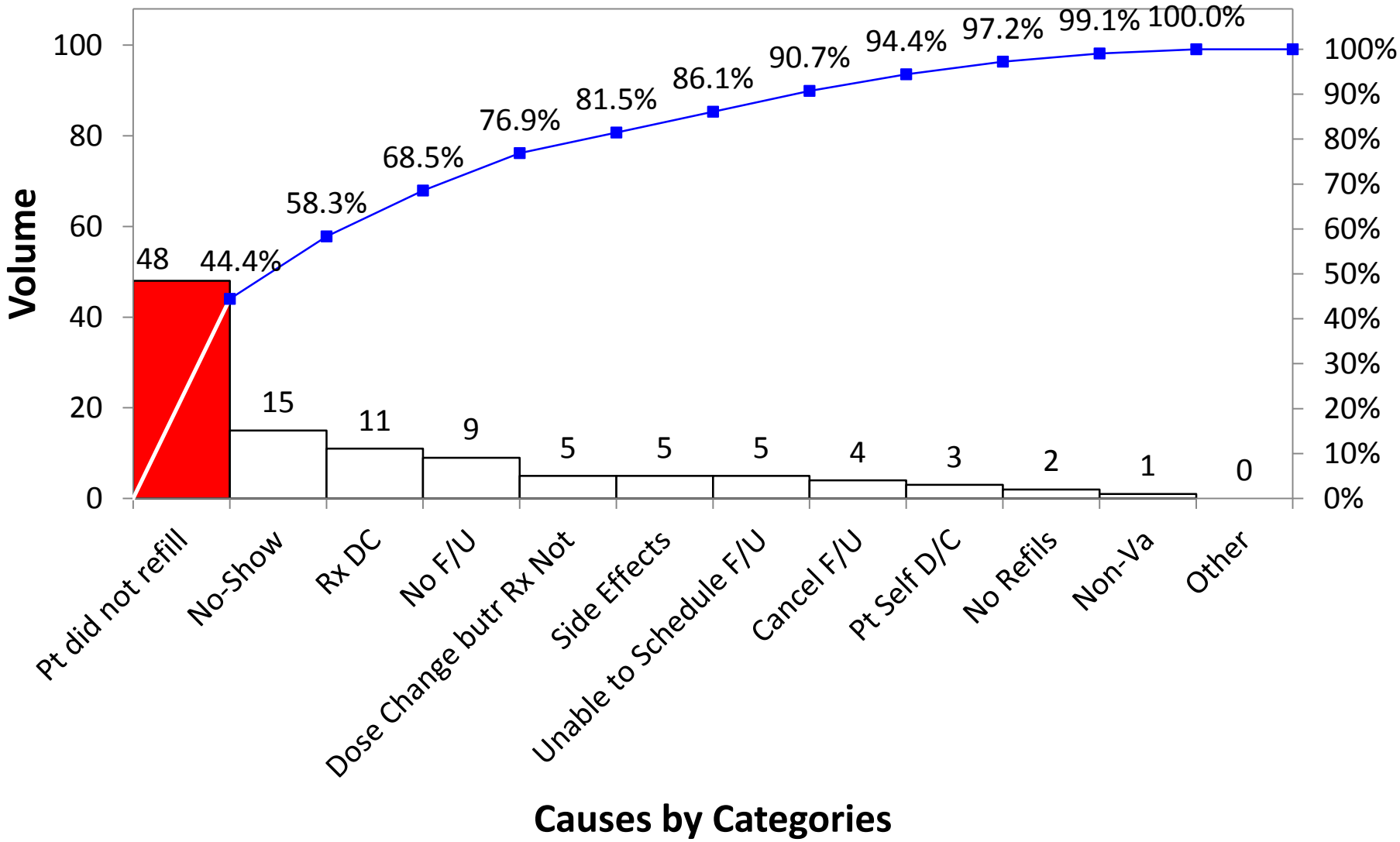
Pareto Chart



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Action Plan

AIM statement: To reduce the percentage of patients diagnosed with depression who are non-adherent to antidepressant therapy during acute phase of treatment with a goal of 25% by December 23, 2016.

Action Strength	Action Driver	Action	Who?	Why?	Start Date?
Intermediate	RX not refilled	Refer CBOC primary care pts to BHL	Winkler	- Reduce defects - Enhance communication	10/24/2016
Intermediate	RX not refilled	Refer primary care patients to PCMHI CPS at assigned clinics	Winkler	- Reduce defects - Enhance communication	10/24/2016
Intermediate	RX not refilled	Refer MH pts to CCHT	Shults/ Oliveira	- Reduce defects - Enhance communication	10/24/2016
Intermediate	Maintenance RX	Alert providers; recommend change to RX	Winkler/Shults/ Oliveira	- Reduce defects	10/24/2016

*BHL = Behavioral Health Lab; CBOC = Community Based Outpatient Clinic; CCHT = Care Coordination Home Telehealth; CPS = Clinical Pharmacy Specialist; MH = mental health; PCMHI = Primary Care Mental Health Integration

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Pre-existing Systems

- Primary Care Behavioral Health Clinical Pharmacy Specialist (PCBH CPS)
  - Prescribers who assist primary care providers in the medication management of uncomplicated depression
  - Embedded into primary care clinics

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Pre-existing Systems

- Behavioral Health Lab (BHL)
  - Team of nurses who monitor response to medications for patients followed in primary care clinics without PCBH CPS
  - Administer rating scales and assess for side effects
- Care Coordination Home Telehealth (CCHT)
  - Same as BHL but for patients followed in mental health clinics

Implementing the Change

- Communicated with relevant primary care and mental health leadership to gain support on recommended interventions
- Identify patients newly started on antidepressants weekly from 10/24/16 until 12/19/16

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Interventions

- Divide report into three categories
- Review medical record to ensure RX is in fact a new start/medication for the patient. If so:

1. Primary care clinic without PCBH CPS → Refer to BHL
2. Primary care clinic with PCBH CPS → Refer to PCBH CPS for med management → If patient declines PCBH CPS follow-up, refer to BHL
3. Mental health clinic → Refer to CCHT

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Interventions

- If RX is found to be a continuation prescription for a stable patient, alert provider and recommend changing to 60 or 90 day supply if clinically appropriate to improve access/adherence to maintenance prescription
  - Report will identify a prescription as a new start if there is no new or refill prescriptions for an antidepressant medication in the preceding 105 days
    - Reasons this may occur:
      - Non-adherence, patient with excess medications at home

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Test of Change

- The week of 12/5/2016, still no reduction in the number of patients who were non-adherent
- Began to review the report to identify patients who had a medication possession ratio between 61-70% (at risk of failing the measure)

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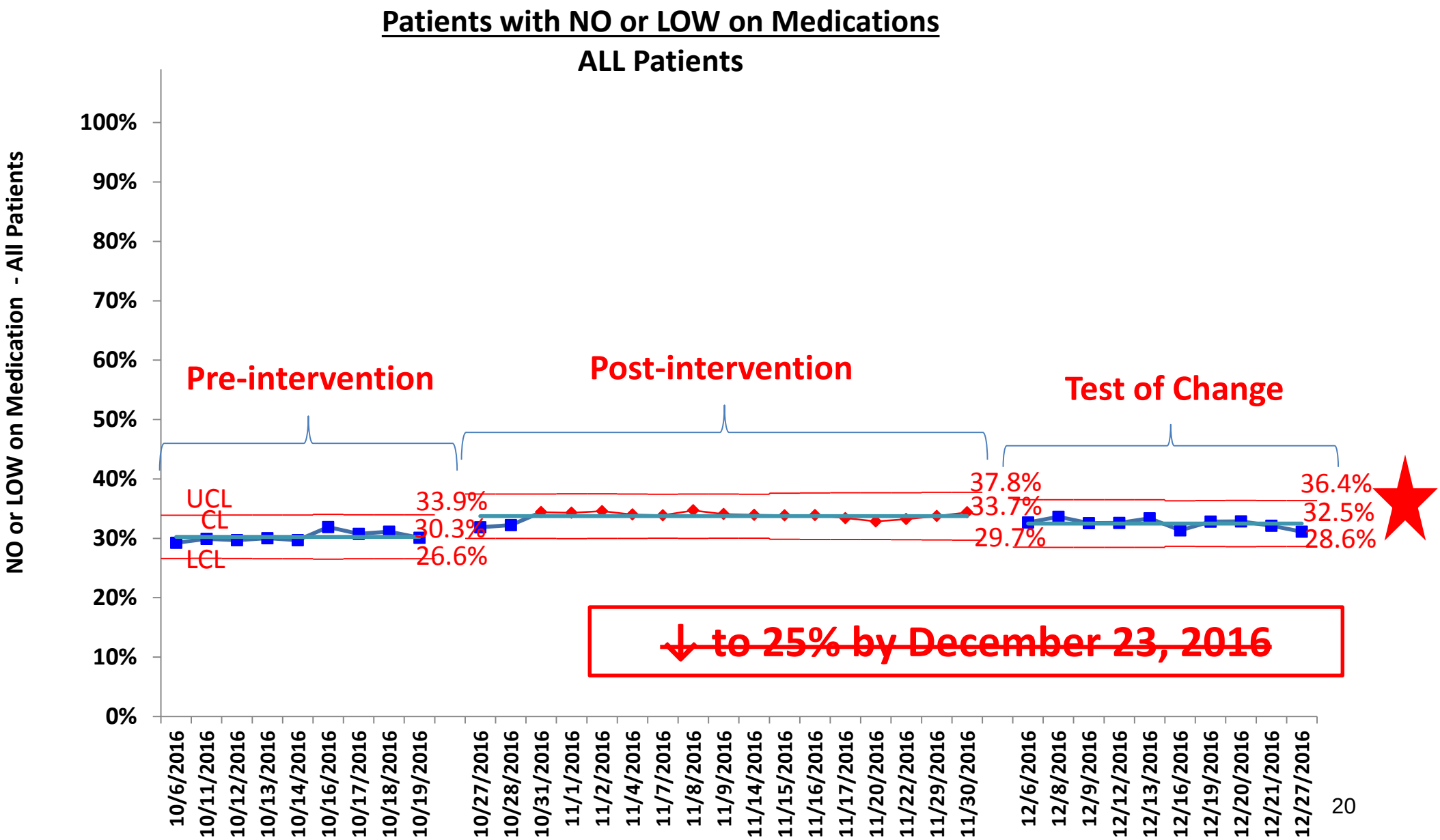
Results


Patients with NO or LOW on Medications
ALL Patients
NO or LOW on Medication - All Patients
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Pre-intervention
Post-intervention
Test of Change
UCL
CL
LCL
33.9%
30.3%
26.6%
37.8%
33.7%
29.7%
36.4%
32.5%
28.6%
↓ to 25% by December 23, 2016
10/6/2016
10/11/2016
10/12/2016
10/13/2016
10/14/2016
10/16/2016
10/17/2016
10/18/2016
10/19/2016
10/27/2016
10/28/2016
10/31/2016
11/1/2016
11/2/2016
11/4/2016
11/7/2016
11/8/2016
11/9/2016
11/14/2016
11/15/2016
11/16/2016
11/17/2016
11/20/2016
11/22/2016
11/29/2016
11/30/2016
12/6/2016
12/8/2016
12/9/2016
12/12/2016
12/13/2016
12/16/2016
12/19/2016
12/20/2016
12/21/2016
12/27/2016

Results

Intervention	Number of patients (n=222)	Accepted intervention (n=69; 31.1%)	Declined intervention (n=57; 25.7%)	Unable to contact (n=19; 8.6%)	Pending follow-up (n=77; 34.7%)
Continuation of therapy – change RX	75 (33.8%)	23 (30.7%)	22 (29.3%)	--	30 (40%)
CCHT	83 (37.3%)	17 (20.5%)	19 (22.9%)	10 (12%)	37 (44.6%)
BHL	42 (18.9%)	16 (38.1%)	14 (33.3%)	4 (9.5%)	8 (19%)
PCMHI CPS	22 (9.9%)	13 (59.1%)	2 (9.1%)	5 (22.7%)	2 (9.1%)

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Conclusions

- Appears worthwhile to intervene on continuation prescriptions incorrectly appearing as new starts
- Continue utilizing PCMHI CPS when possible given high rate of acceptance by patients compared to other interventions
- Need more time to follow-up on pending interventions and to complete 114 day cycle to truly see impact of interventions (~2/18/2017)

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Implementation Issues

- Patient can decline BHL or CCHT referral
- Providers can choose not to change day supply of continuation medications
- Report limitations: PRN medications, TCAs for pain; not correctly capturing newly treated patients
- Incorrect coding
- Insufficient resources to address those at risk of failing the measure (non-possession days > 30 and/or low MPR)
- Limited CCHT/BHL capacity
- Cultural change needed

Future Test of Change

- Consider comparing adherence rates by clinics with and without PCMHI CPS – may indicate staffing needs
- Send letters to patients who are non-adherent/ at risk of failing the measure
- Establish a policy for continuation prescriptions

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Return on Investment: Value Added

- Patient non-adherence
  - Poor therapeutic outcomes, worsening of disease, billions per year in avoidable health care costs (ER visits, psychiatric admissions, etc)
- Increased monitoring in the acute treatment phase should also lead to decreased time to titration to therapeutic dose, and to help identify patients who need specialty mental health care sooner, thus decreasing delay for care

Iuga AO, McGuire MJ. Adherence and health care costs. *Risk Manag Healthc Policy* 2014; 7: 35–44.

Return on Investment: Lessons Learned

- Engage key leaders and those needed to implement changes early on and continue to do so throughout
- Document the time required
  - Reviewing weekly report
  - Chart review with no encounter
  - Regular meetings for process refinement

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Maintenance

- Dedicated clinical time to continue reviewing the report, patient record, and make recommendations/referrals
- Engage other MH CPS to review their respective clinics
- Auxiliary support staff to include technicians and outpatient clinic nursing support

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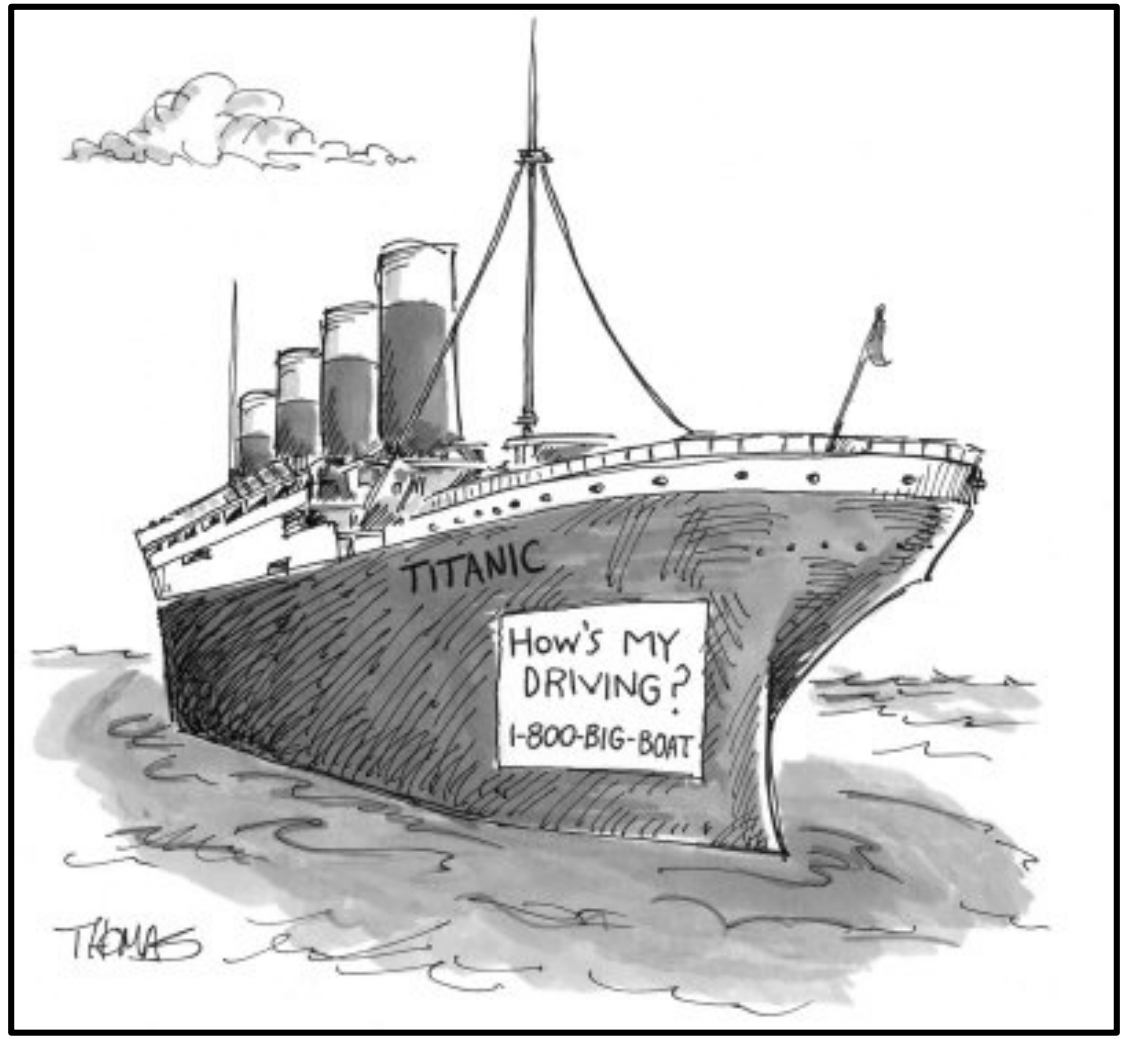
Questions?



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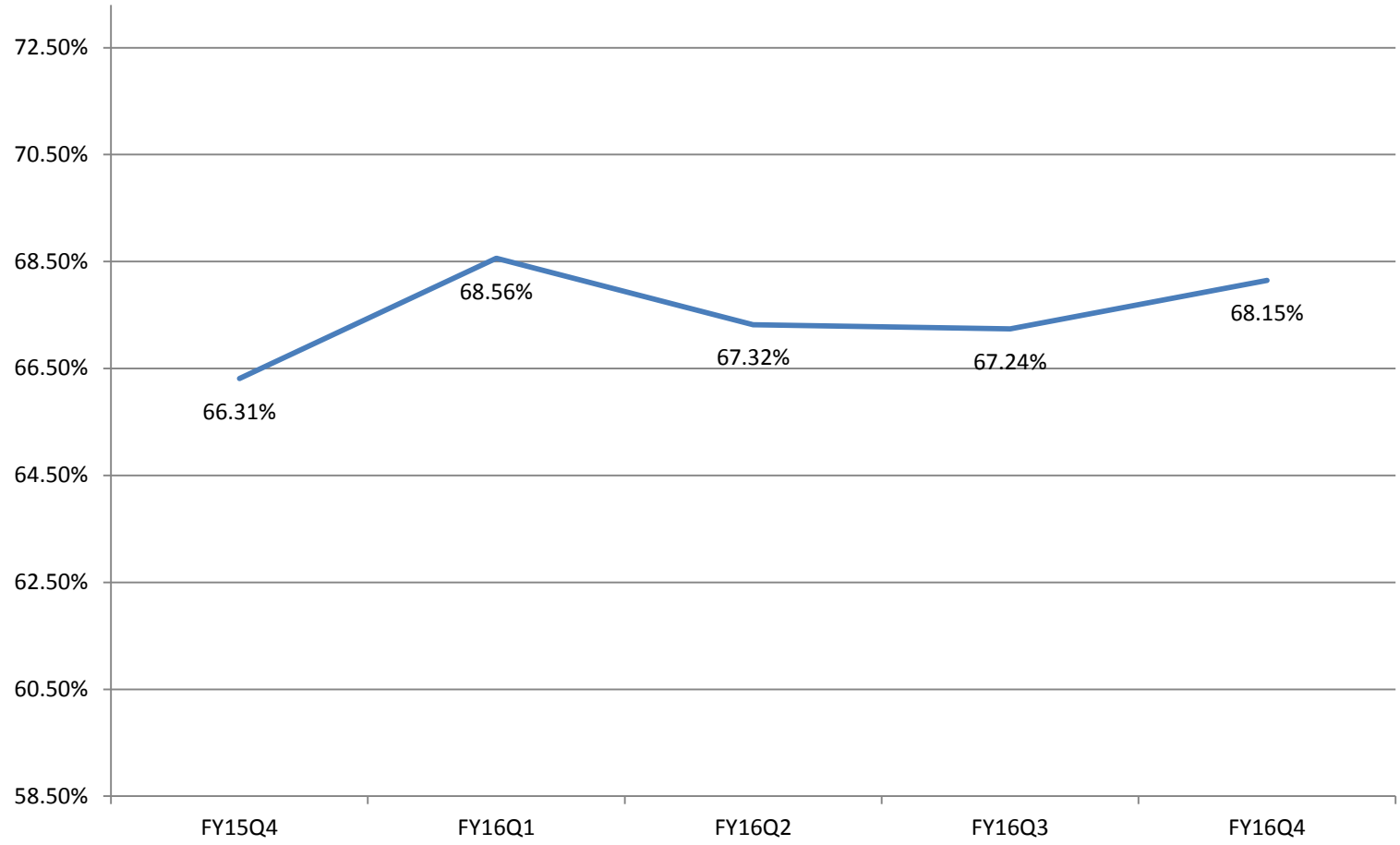
Current Performance

- We are currently performing under the 50th percentile



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Understanding the Numbers

- Numerator: Number of depression-diagnosed patients who received ≥ 84 days of antidepressant medication through 114 days after index prescription start date
- Denominator: Number of patients with a depression diagnosis newly treated with antidepressant medication
- A higher percentage is better!

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