# Improving Response Times to Patient Messages in the UT Medicine Women's Health Center

## Clinical Safety & Effectiveness
## Cohort# 7

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

**Educating for Quality Improvement & Patient Safety**

CS&E

# DISCLOSURE

Victoria Carter, MD has no relevant financial relationships with commercial interests to disclose.

Helena Crosby, has no relevant financial relationships with commercial interests to disclose.

Susan Crum, RN has no relevant financial relationships with commercial interests to disclose.

Jarrod D. Power has no relevant financial relationships with commercial interests to disclose.

# The Team

**CS&E Team**

- ❖ Dr. Victoria Carter – Medical Director of Neurology
- ❖ Helena Crosby – UT Medicine Clinical Operations
- ❖ Susan Crum, RN – Clinic Manager of UT Medicine Women's Health Center
- ❖ Jarrod D. Power – EpicCare Specialist

**Participants**

- ❖ Dr. Mysti D.W. Schott – Director of Clinical Informatics
- ❖ Marisela Casarez, MA – Lead Medical Assistant MARC OB/GYN
- ❖ Diana Realme – MARC OB/GYN Call Center
- ❖ Shannon Balmer – MARC OB/GYN Call Center
- ❖ Lisa Ponce, MA – Medical Assistant MARC OB/GYN
- ❖ Rosetta Noela Barrera – Epic Clarity Reporting

**Facilitators**

- ❖ Amruta Parekh, MD, MPH
- ❖ Leticia Bresnahan, MBA

# Our Team Photo

# What We Are Trying to Accomplish?

**OUR AIM STATEMENT**

The aim of this project is to increase the percentage of patient calls returned by the end of the clinic day to 100% by June 1, 2011 in the UT Medicine Women's Health Center.
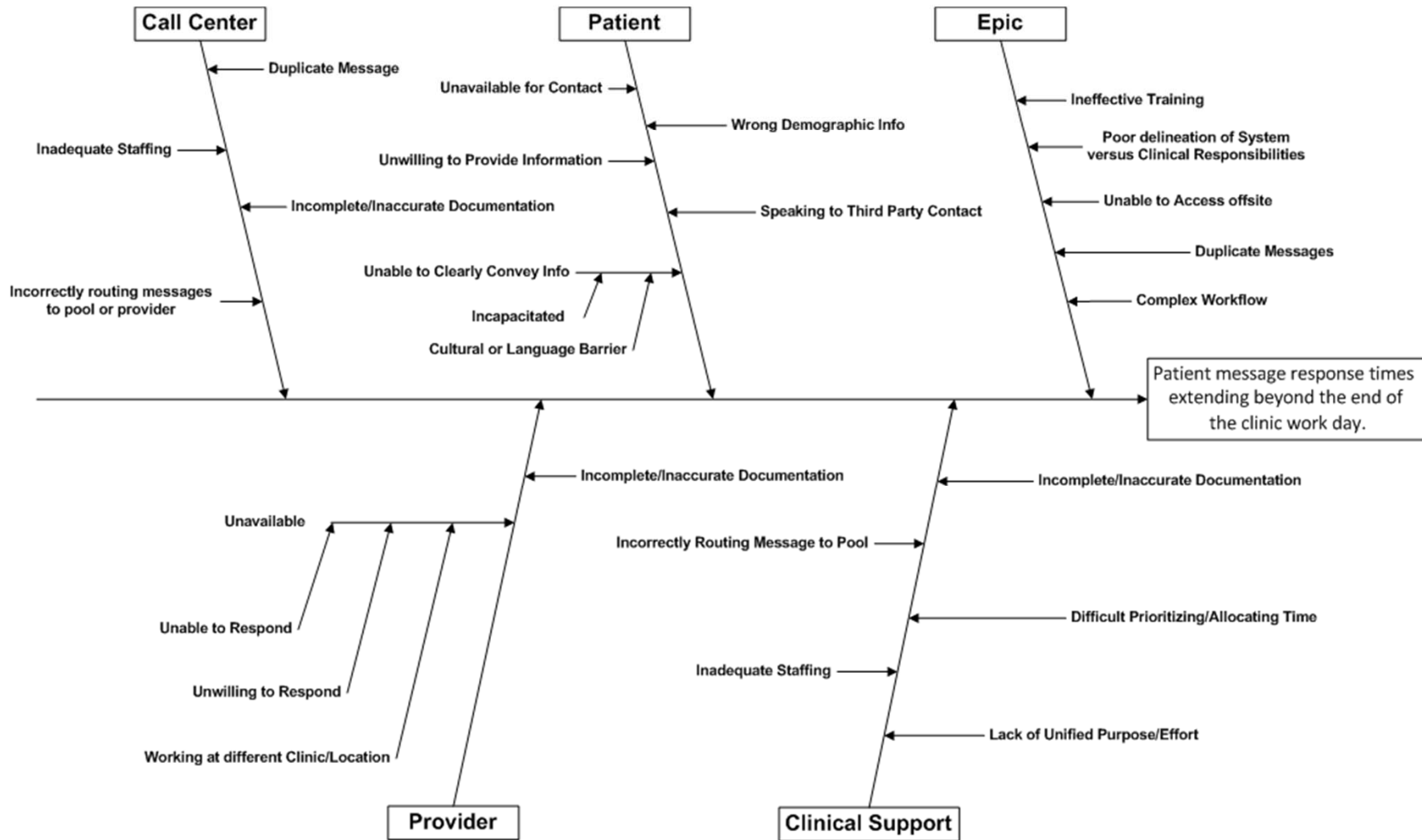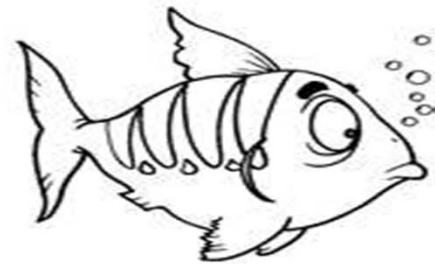
# Project Milestones

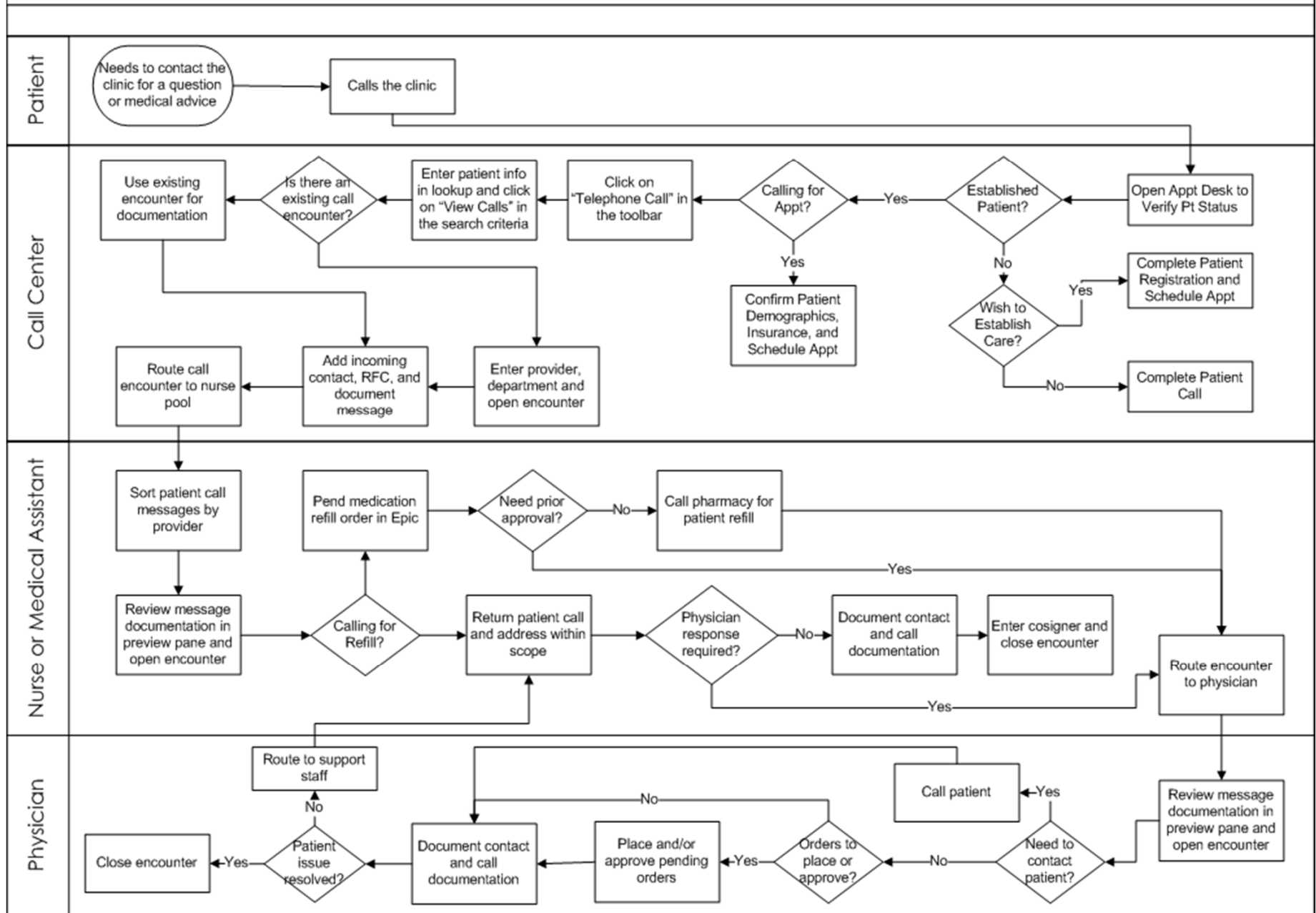| | |
|---|---|
| Team Created | 01/12/2011 |
| AIM Statement Created | 01/28/2011 |
| Weekly Team Meetings | 01/19/2011 - 06/24/2011 |
| Background Data, Brainstorm Sessions, Work flow and Fishbone Analyses | 01/28/2011 - 03/11/2011 |
| Interventions Implemented | 03/01/2011 – 06/01/11 |
| Data Analysis | 03/14/2011 – 06/17/11 |
| CS&E Presentation | 06/24/2011 |

# Cause & Effect Diagram

**Call Center**
- Duplicate Message
- Inadequate Staffing
- Incomplete/Inaccurate Documentation
- Incorrectly routing messages to pool or provider

**Patient**
- Unavailable for Contact
- Wrong Demographic Info
- Unwilling to Provide Information
- Speaking to Third Party Contact
- Unable to Clearly Convey Info
- Incapacitated
- Cultural or Language Barrier

**Epic**
- Ineffective Training
- Poor delineation of System versus Clinical Responsibilities
- Unable to Access offsite
- Duplicate Messages
- Complex Workflow

Patient message response times extending beyond the end of the clinic work day.

**Provider**
- Incomplete/Inaccurate Documentation
- Unavailable
- Unable to Respond
- Unwilling to Respond
- Working at different Clinic/Location

**Clinical Support**
- Incomplete/Inaccurate Documentation
- Incorrectly Routing Message to Pool
- Difficult Prioritizing/Allocating Time
- Inadequate Staffing
- Lack of Unified Purpose/Effort

# UT Women's Health Center Patient Calls (Pre-Intervention)

**Epic**

## Patient

- Needs to contact the clinic for a question or medical advice
- Calls the clinic

## Call Center

- Open Appt Desk to Verify Pt Status
- Established Patient?
  - **Yes** → Calling for Appt?
    - **Yes** → Confirm Patient Demographics, Insurance, and Schedule Appt
    - → Click on "Telephone Call" in the toolbar
  - **No** → Wish to Establish Care?
    - **Yes** → Complete Patient Registration and Schedule Appt
    - **No** → Complete Patient Call
- Enter patient info in lookup and click on "View Calls" in the search criteria
- Is there an existing call encounter?
  - → Use existing encounter for documentation
- Enter provider, department and open encounter
- Add incoming contact, RFC, and document message
- Route call encounter to nurse pool

## Nurse or Medical Assistant

- Sort patient call messages by provider
- Review message documentation in preview pane and open encounter
- Calling for Refill?
  - Pend medication refill order in Epic
    - Need prior approval?
      - **No** → Call pharmacy for patient refill
      - **Yes** →
- Return patient call and address within scope
- Physician response required?
  - **No** → Document contact and call documentation → Enter cosigner and close encounter
  - **Yes** → Route encounter to physician
- Route encounter to physician

## Physician

- Review message documentation in preview pane and open encounter
- Need to contact patient?
  - **Yes** → Call patient
  - **No** → Orders to place or approve?
    - **Yes** → Place and/or approve pending orders
    - **No** →
- Document contact and call documentation
- Patient issue resolved?
  - **Yes** → Close encounter
  - **No** → Route to support staff

# Epic

## UT Women's Health Center Patient Calls (Post-Intervention)

### Patient

- Needs to contact the clinic for a question or medical advice
- Calls the clinic

### Call Center

- Open Appt Desk to Verify Pt Status
- Established Patient?
  - Yes → Calling for Appt?
    - No → Click on "Telephone Call" in the toolbar. **Notify the caller that their call will be returned by the end of the clinic day**
    - Yes → Confirm Patient Demographics, Insurance, and Schedule Appt
  - No → Wish to Establish Care?
    - Yes → Complete Patient Registration and Schedule Appt
    - No → Complete Patient Call
- Enter patient info in lookup and click on "View Calls" in the search criteria
- Is there an existing call encounter?
  - Use existing encounter for documentation
- Add incoming contact, RFC, and document message **using the appropriate documentation template**
- Enter provider, department and open encounter
- Route call encounter to nurse pool

### Nurse or Medical Assistant

- Sort patient call messages by provider
- Review message documentation in preview pane and open encounter
- Calling for Refill?
  - Pend medication refill order in Epic
  - Need prior approval?
    - No → Call pharmacy for patient refill
    - Yes
  - Return patient call and address within scope
- Physician response required?
  - No → Document contact and call documentation → Enter cosigner and close encounter
  - Yes → Route encounter to physician

### Physician

- Review message documentation in preview pane and open encounter
- Need to contact patient?
  - Yes → Call patient
  - No → Orders to place or approve?
    - Yes → Place and/or approve pending orders
    - No
- Document contact and call documentation
- Patient issue resolved?
  - Yes → Close encounter
  - No → Route to support staff

**Pre-Intervention - Raw Number of Total Calls Compared to Calls Not Returned**

# Pre-Intervention Metrics – Percentage of Patient Calls Not Returned by End of Clinic Day

# Background Information

In FY 2010 the Total Call Volume was 51,954

In FY 2011 the Total Call Volume was 59,886

***This represents a 15% increase***

In FY 2010, there were 7,727 total visits

In FY 2011, there were 8,595 total visits

***In FY 2012, this amount will increase dramatically due to 5 new physicians being added***.

UT Medicine has an expectation to keep the abandonment rates below 5%. Currently, our range is anywhere from 4.6% - 6.0% with 4.5 agents.

# Initial Interventions



- Modified call center script to include a patient disclaimer *"**This message will be forwarded to your doctor and their MA. Due to clinic schedules, phone calls are returned at the end of the day**"* to set appropriate expectations.

- Prioritized clinical support staffs duties to ensure patient calls are returned <u>before</u> other duties assigned.

Post-Intervention #1 - Raw Number of Total Calls Compared to Calls Not Returned
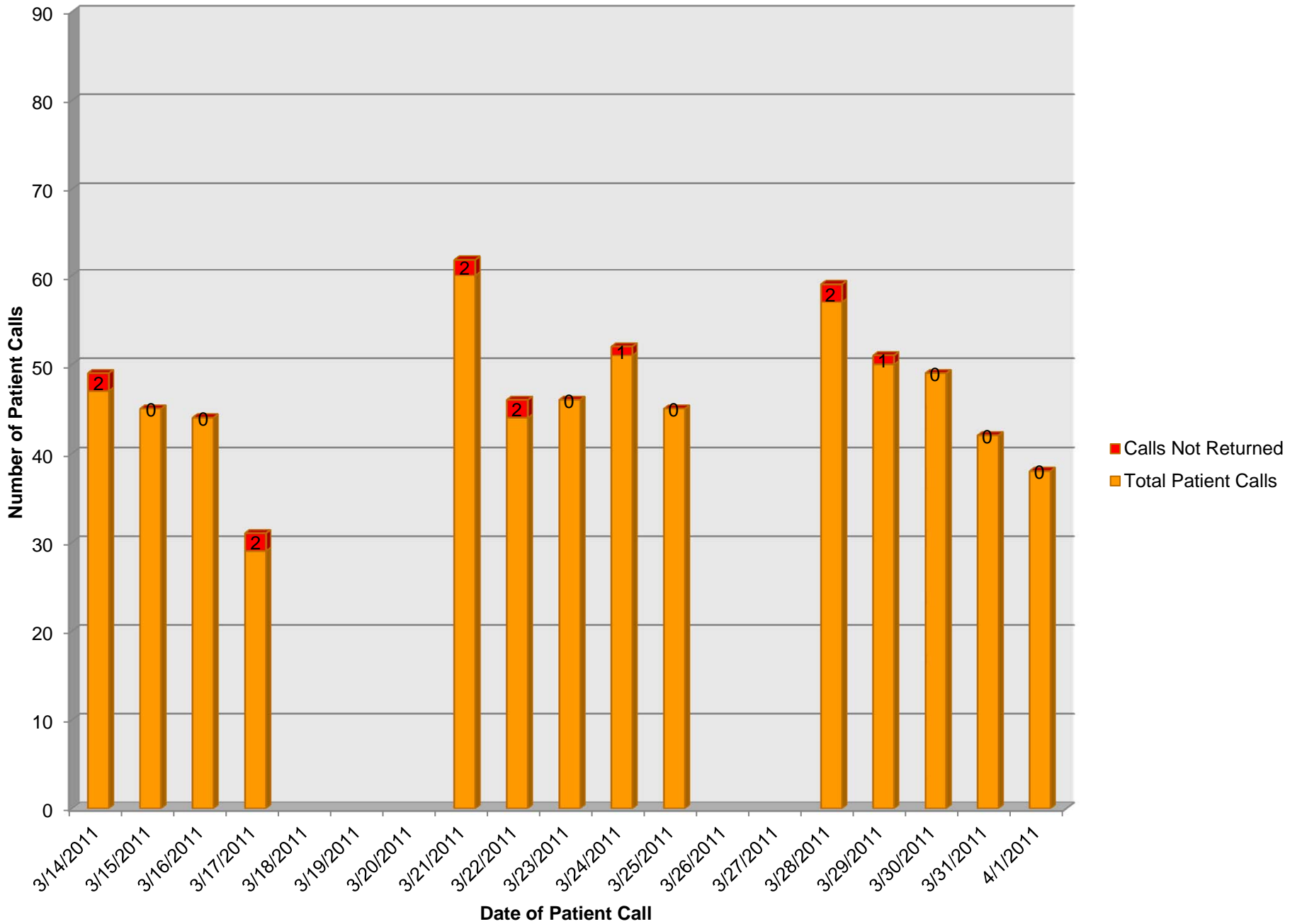
Post Intervention #1 – Percentage of Patients Not Contacted by End of Clinic Day
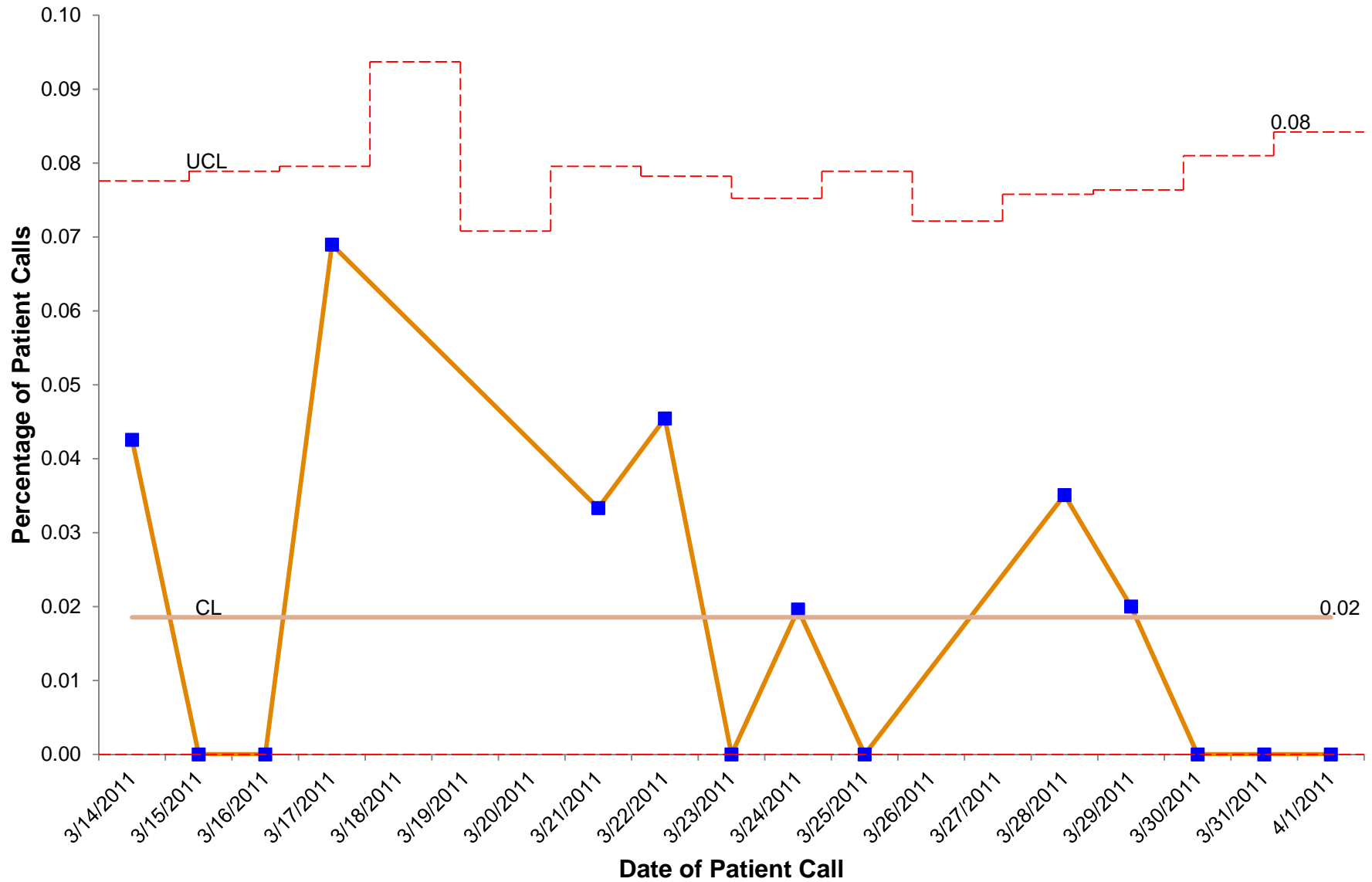
# Pre & Post Intervention #1 Comparison – Percentage of Patients Not Contacted by End of Clinic Day



**Percentage of Patient Calls** (y-axis)

**Date of Patient Call** (x-axis)

UCL — 0.21
CL — 0.09
0.09
LCL — -0.04

0.09
0.02
-0.05

y-axis values: 0.26, 0.21, 0.16, 0.11, 0.06, 0.01, -0.04, -0.09

x-axis dates: 2/11/2011, 2/14/2011, 2/15/2011, 2/16/2011, 2/17/2011, 2/18/2011, 2/21/2011, 2/22/2011, 2/23/2011, 3/14/2011, 3/15/2011, 3/16/2011, 3/17/2011, 3/21/2011, 3/22/2011, 3/23/2011, 3/24/2011, 3/25/2011, 3/28/2011, 3/29/2011, 3/30/2011, 3/31/2011, 4/1/2011
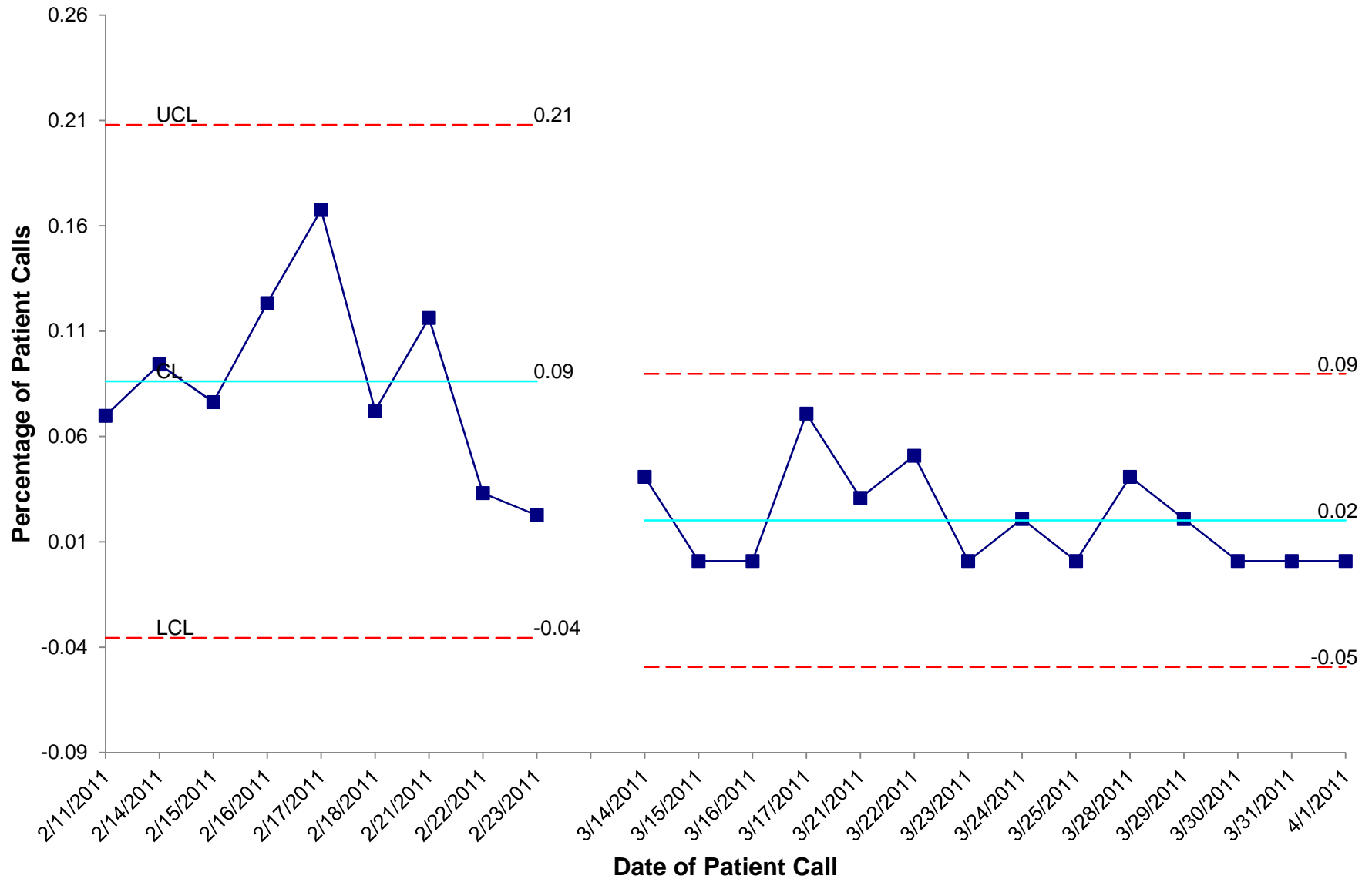
# Secondary Intervention

❑The Call Center employees, in coordination with the Medical Assistants, were asked to list the *Top 10 Reasons Patients Call*.

❑Templates were devised, and approved by our Medical Director, to address the key points needed to properly triage the calls appropriately the ***first*** time around.

❑This helped decrease the amount of calls back and forth between the clinical staff and patients; therefore, decreasing the amount of calls sent to the InBasket.

# Template Example

Pelvic/Abdominal Pain with Pregnancy

How long have you experienced this pain?

Are you having any contractions (uterine tightening) or bleeding associated with the pain and pressure?

Are you experiencing pelvic pain confined to one location?

Have you experienced any fever, nausea or bowel changes?

**Post-Intervention #2 - Raw Number of Total Calls Compared to Calls Not Returned**

- Calls Not Returned
- Total Patient Calls

Number of Patient Calls

Date of Patient Call
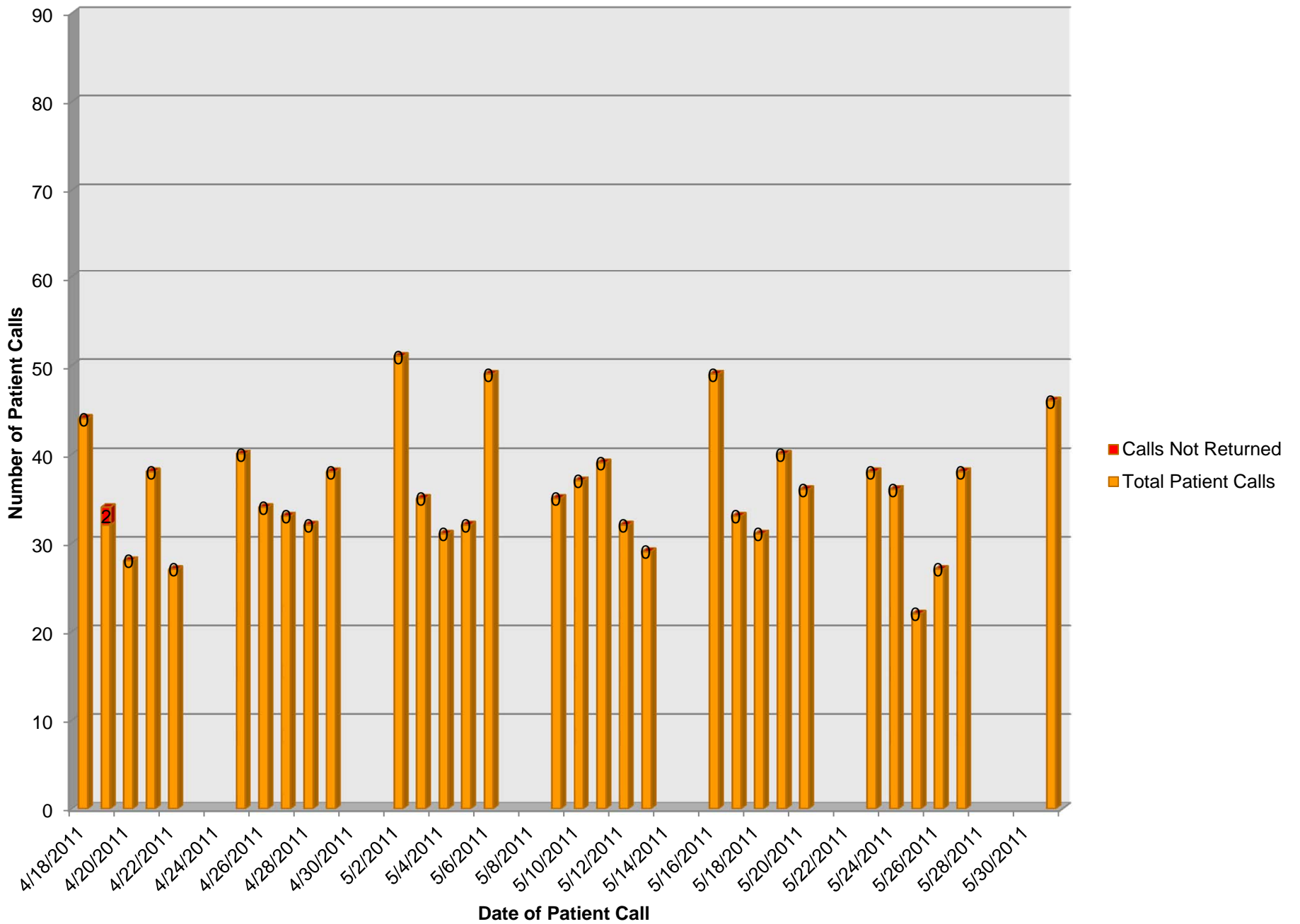
Post Intervention #2 – Percentage of Patients Not Contacted by End of Clinic Day
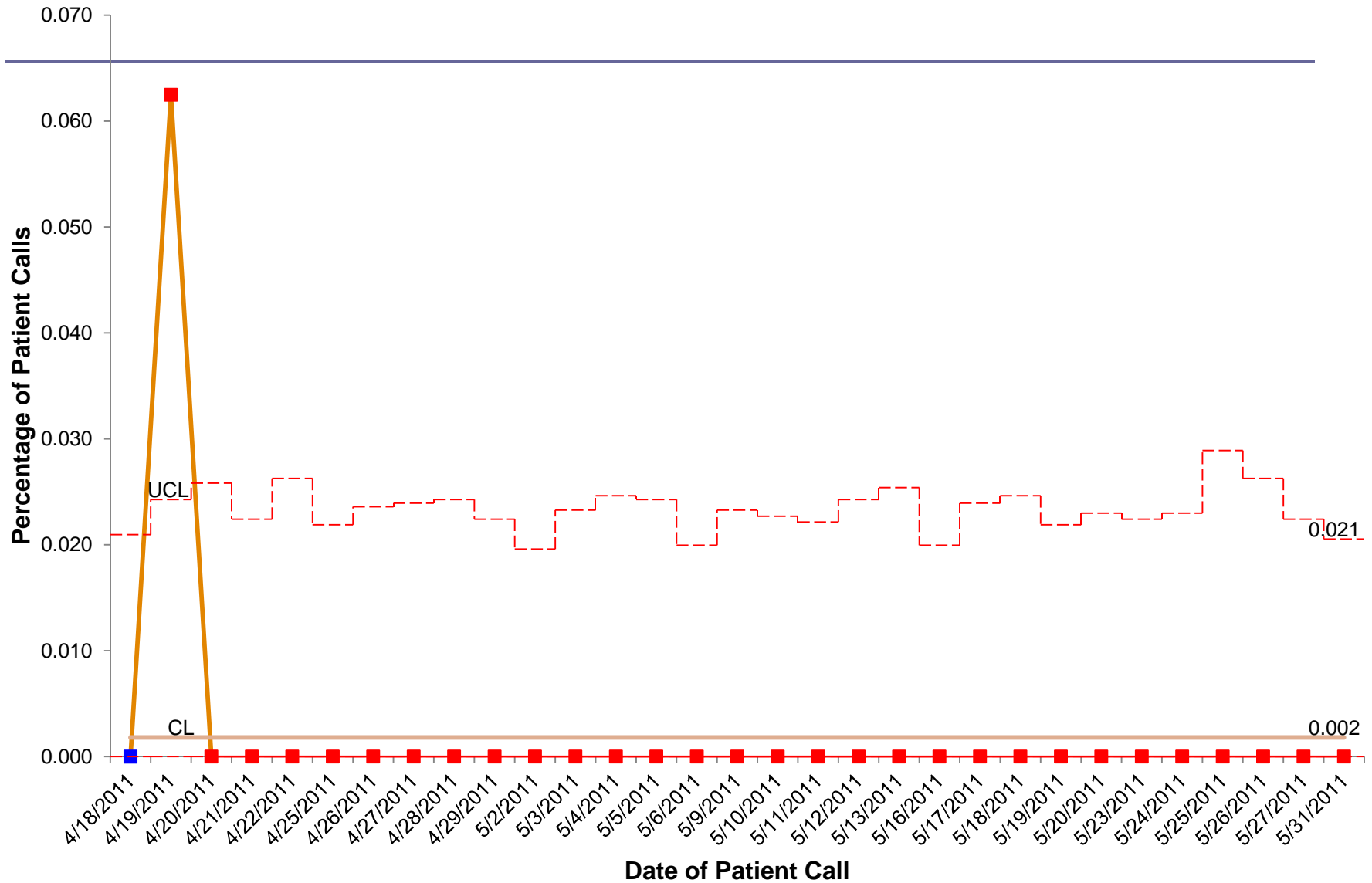
Total Project – Percentage of Patients Not Contacted by End of Clinic Day
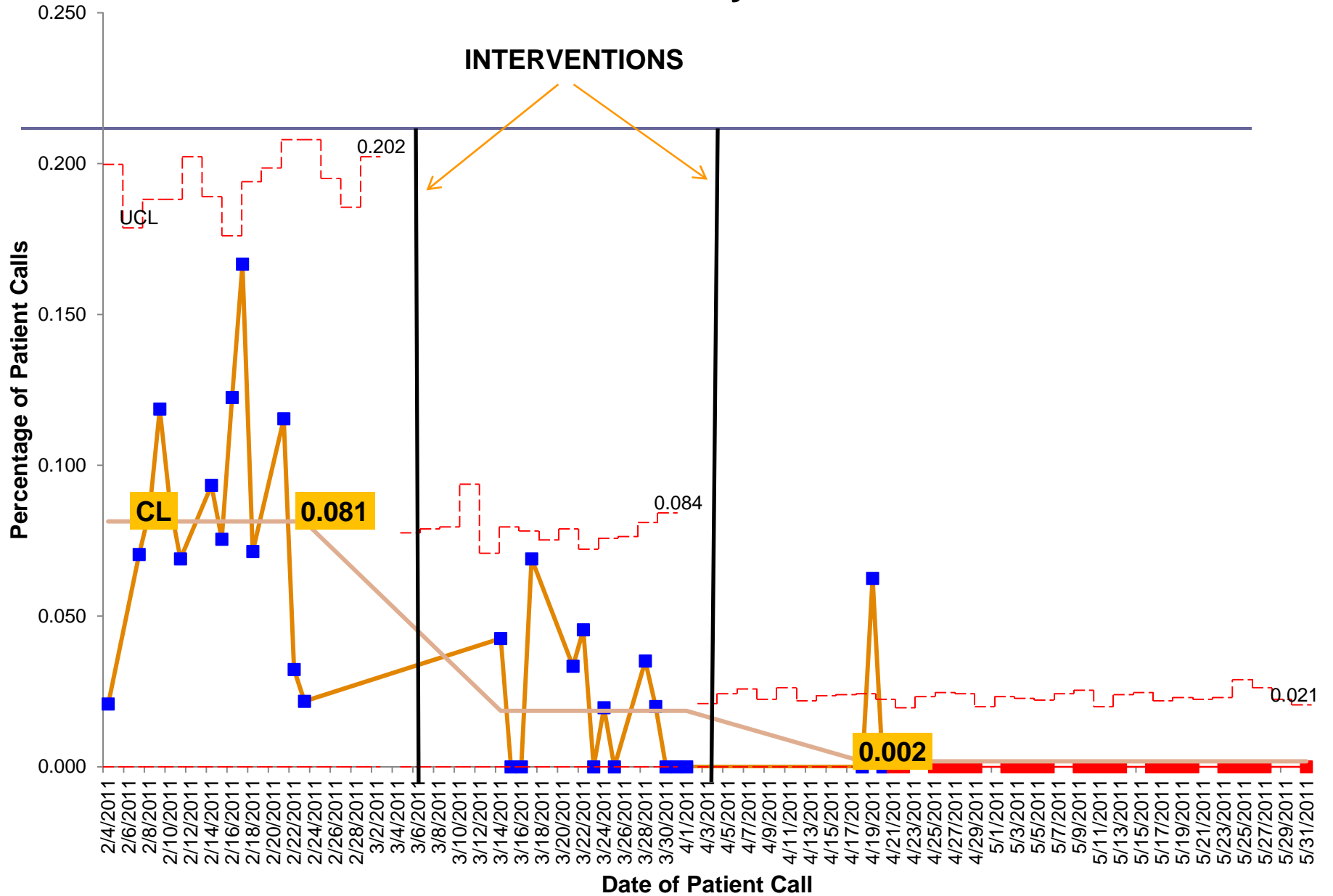
# Return on Investment

❑UT Medicine has an expectation to keep the abandonment rate below 5%.  Currently, our range is anywhere from 4.7% to 6.0% with 4.5 agents.

❑By streamlining the Call Center messaging process, there is a chance a new agent may not need to be added since the amount of return calls should be decreased.  This could ***generate an annual savings of $27K-$30K***.

❑Ultimately, with projected growth, a new agent will be added but the number of total visits will be much higher as well; therefore, more than offsetting the added expense.

# Return on Investment - 2

*With all calls being returned in a timely fashion potential liability is decreased.*

"... failing to respond to patient's emails [messages] within a reasonable amount of time, could constitute a violation of the standard of care." (Mangalmurti, Murtagh & Mello, 2010, p. 2065)

This may have medico-legal benefits since research has linked a propensity to sue with patients' satisfaction with their physician and the physician's communication skills (Levinson, Roter, Mullooly, Dull, & Frankel, 1997).

# Return on Investment - 3

*When patient satisfaction is increased, the patient is unlikely to seek care elsewhere.*

"People have begun to expect a response within the same day, often sooner, and are annoyed if they do not receive it" (Safran, Jones, Rind, Bush, Cytryn & Patel, 1996 p.148).

# Expanding Implementation

With the completion and successful implementation of our Aim Statement, these interventions will lead to evaluation and improvement of the quality of messaging.

This next step is being examined by Cohort 8 and will lead to a formal messaging policy within UT Medicine; therefore, strengthening our patient-oriented culture.

# How Will We Know that the Change is an Improvement?

*UT Medicine Clinical Operations performs monthly messaging audits. The goal is to have 100% of the messages completed within 0-1 days. Here are the results of the last audit:*

| Clinic Name | # of Audits Completed | Messages completed within 0-1 days | Messages completed within 2-3 days | Messages completed in 3+ days | % Compliance with 24 hour TAT (0-1 days) |
|---|---|---|---|---|---|
| Med Specialty | 12 | 8 | 2 | 2 | 67% |
| Neurology | 9 | 9 | 0 | 0 | 100% |
| Primary Care | 14 | 14 | 0 | 0 | 100% |
| **OB/GYN** | **15** | **15** | **0** | **0** | **100%** |
| Surgery/Plastics | 8 | 7 | 0 | 1 | 88% |
| Cardiology | 8 | 7 | 1 | 0 | 88% |
| Ortho | 7 | 6 | 0 | 1 | 86% |
| Westover Hills | 15 | 14 | 1 | 0 | 93% |

# To sum it all up . . .

"Messaging systems effect liability by shaping patient's perception of their physician" (Manglamurti, et al., 2010 p.3).

# References

Levinson, W., Roter, D.L., Mullooly, J.P., Dull, V.T., & Frankel, R.M. (1997). Patient-physician communication: The relationship with malpractice claims among primary care physicians. *JAMA; 277,* 553-559.

Mangalmurti, S., Murtagh, L., & Mello, M.M. (2010). Medical malpractice liability in the age of electronic health records. *New England Journal of Medicine, 363:* 2060-2067.

Safran, C., Jones, P.C., Rind, D., Bush, B., Cytryn, K.A., & Patel, V.L. (1996). Electronic communication and collaboration in a health care practice. *Artificial Intelligence in Medicine, 12,* 137-151.