Clinical Safety & Effectiveness Cohort # 10

Improving the patient's cycle time at the Geriatric Evaluation and Management (GEM) Clinic at ALM-VA using a patient flow analysis.

CENTER FOR PATIENT SAFETY & HEALTH POLICY

UT HEALTH SCIENCE CENTER™

SAN ANTONIO

Educating for Quality Improvement & Patient Safety

The Team

- Division-Geriatrics

- CS & E Participant

  Carol M. Espinal MD

-Team Members

       Monica Horton MD

       Lisa Burns RN

       Michael Hawkins- Clerk

- Facilitator

       Amruta Parekh, MD, MSPH

       Hope Nora, PhD

       Leticia Bresnahan, MBA

- Sponsor: UTHSCSA/VA, S. Liliana Oakes, MD

What We Are Trying to Accomplish?

OUR AIM STATEMENT

Decrease the wait time for all the patients evaluated by a provider (Attending, Fellow, Nurse practitioner or Resident) at the Geriatric Evaluation & Management Clinic (GEM Clinic) by 25% over a period of 4 months.

Project Milestones

- Team Created   December 2011
- AIM statement created   January 2011
- Weekly Team Meetings   December 2011-present
- Background Data, Brainstorm Sessions, January-March 2012
  Workflow and Fishbone Analyses
- Interventions Implemented Feb –March 2012
- Data Analysis   March 2012- present
- CS&E Presentation   June 15, 2012
- Graduation Date   June 15, 2012
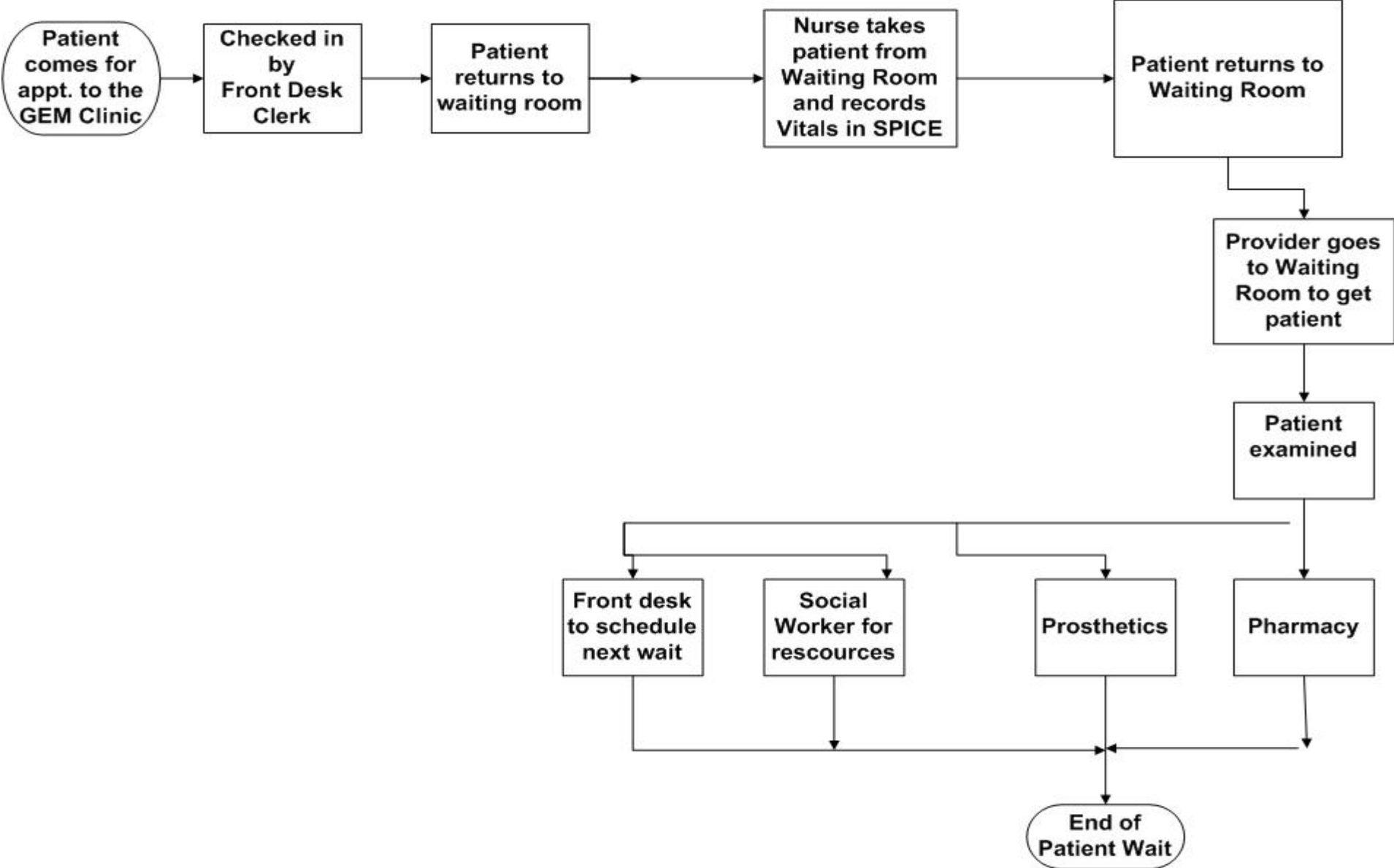
Background

- The patients in the GEM – VA clinic are the Geriatric population that have multiple medical problems including dementia and frailty. They should not need to wait for more then a hour for their scheduled appointment.

- It is well known that extended patient wait times for appointments is a very frequent complaint among the patients.
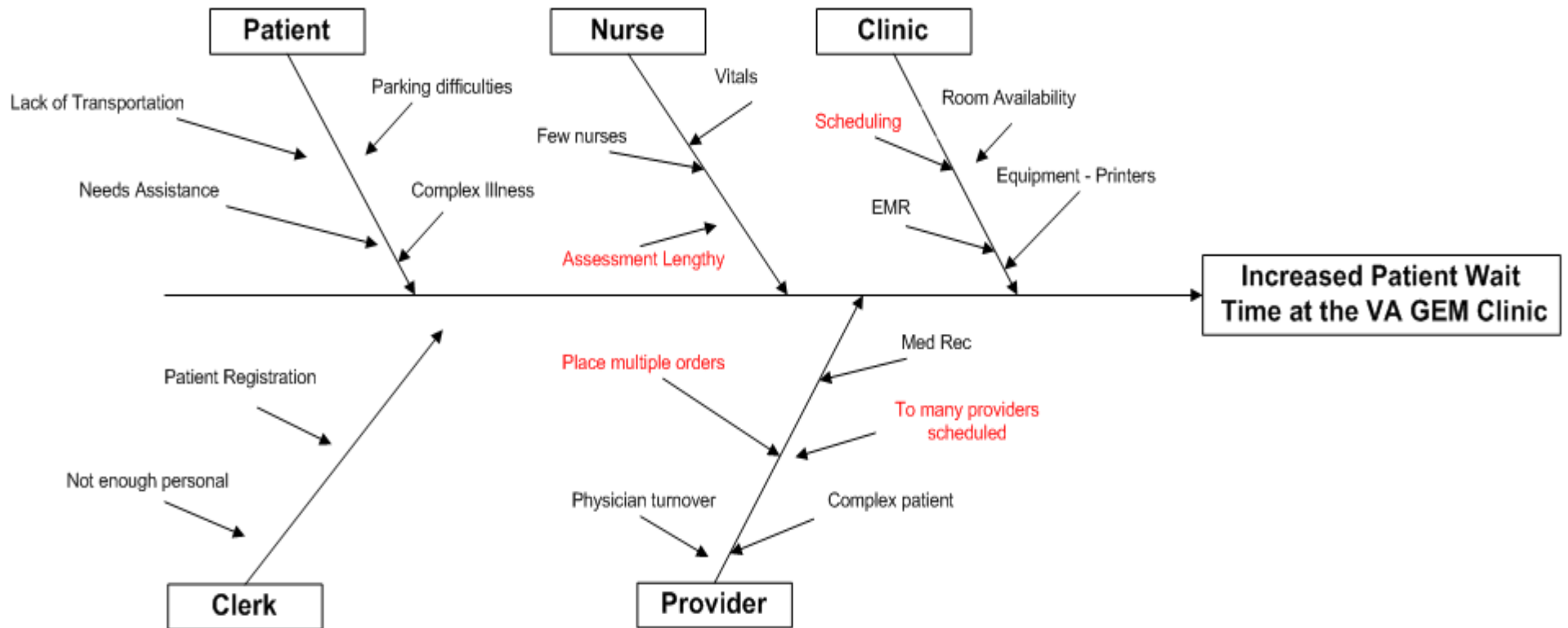
PLAN

- Collect Background Data
- Develop Cause & Effect Diagram for current Wait Time
- Develop flow maps and understand sources of variation in the current patient flow process.
- Assess baseline "time-to" at the various points in the patient flow process from when they arrive until they leave.
- Brainstorm how to improve the patient flow with Team members.
  - Specific targets for change-wait times due to scheduling issues and duplication of work
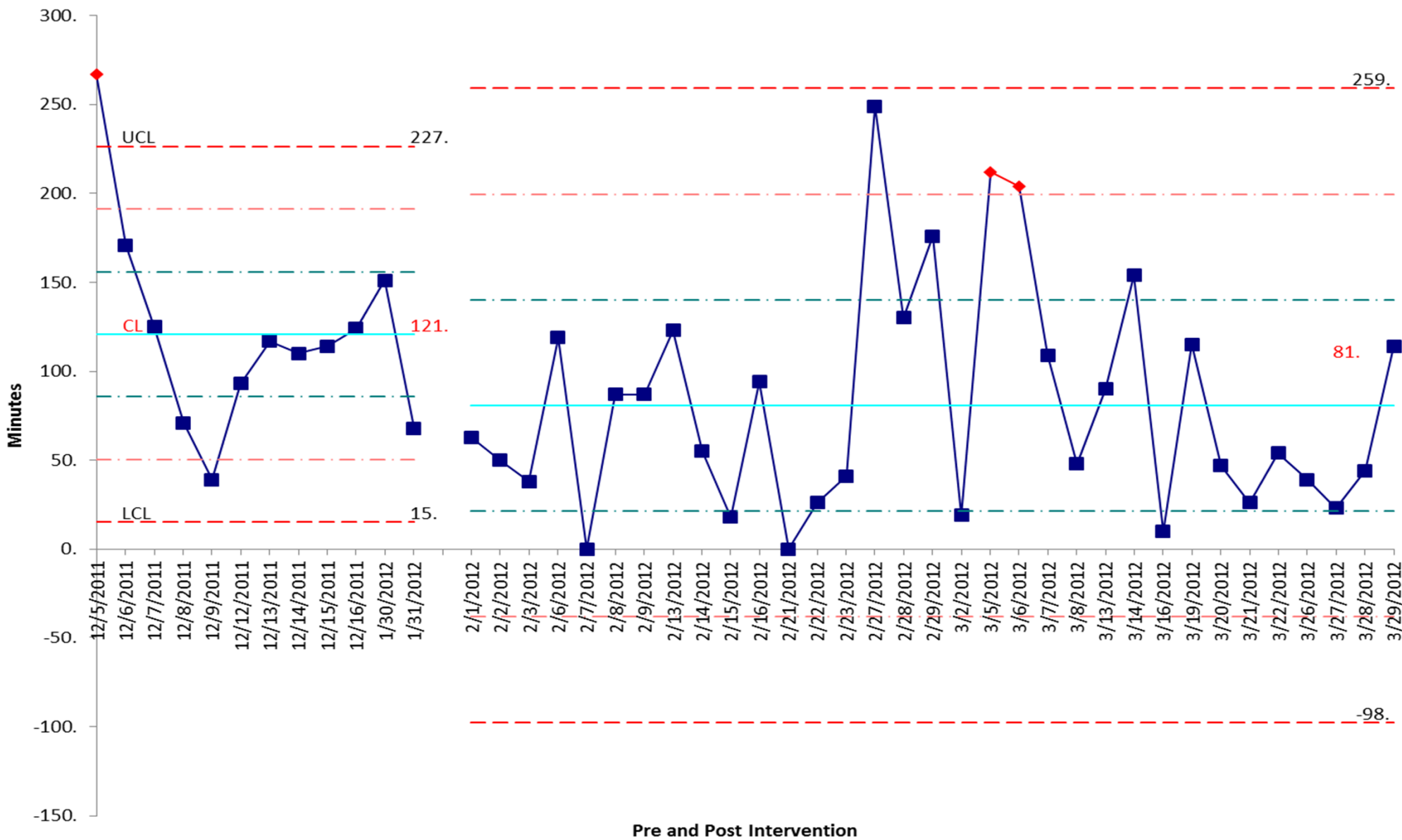
Flowchart

FISHBONE DIAGRAM

Patient
- Lack of Transportation
- Parking difficulties
- Needs Assistance
- Complex Illness

Nurse
- Vitals
- Few nurses
- Assessment Lengthy

Clinic
- Scheduling
- Room Availability
- Equipment - Printers
- EMR

Clerk
- Patient Registration
- Not enough personal

Provider
- Place multiple orders
- Med Rec
- To many providers scheduled
- Physician turnover
- Complex patient

Increased Patient Wait Time at the VA GEM Clinic

DO- Initial Interventions

- January 2012- changed Monday morning schedule for the GEM fellow clinic.

- February 2012-
  - changed hours for walk in clinic and
  - patients that checked in late only had vitals done, not the entire nurse questionnaire.

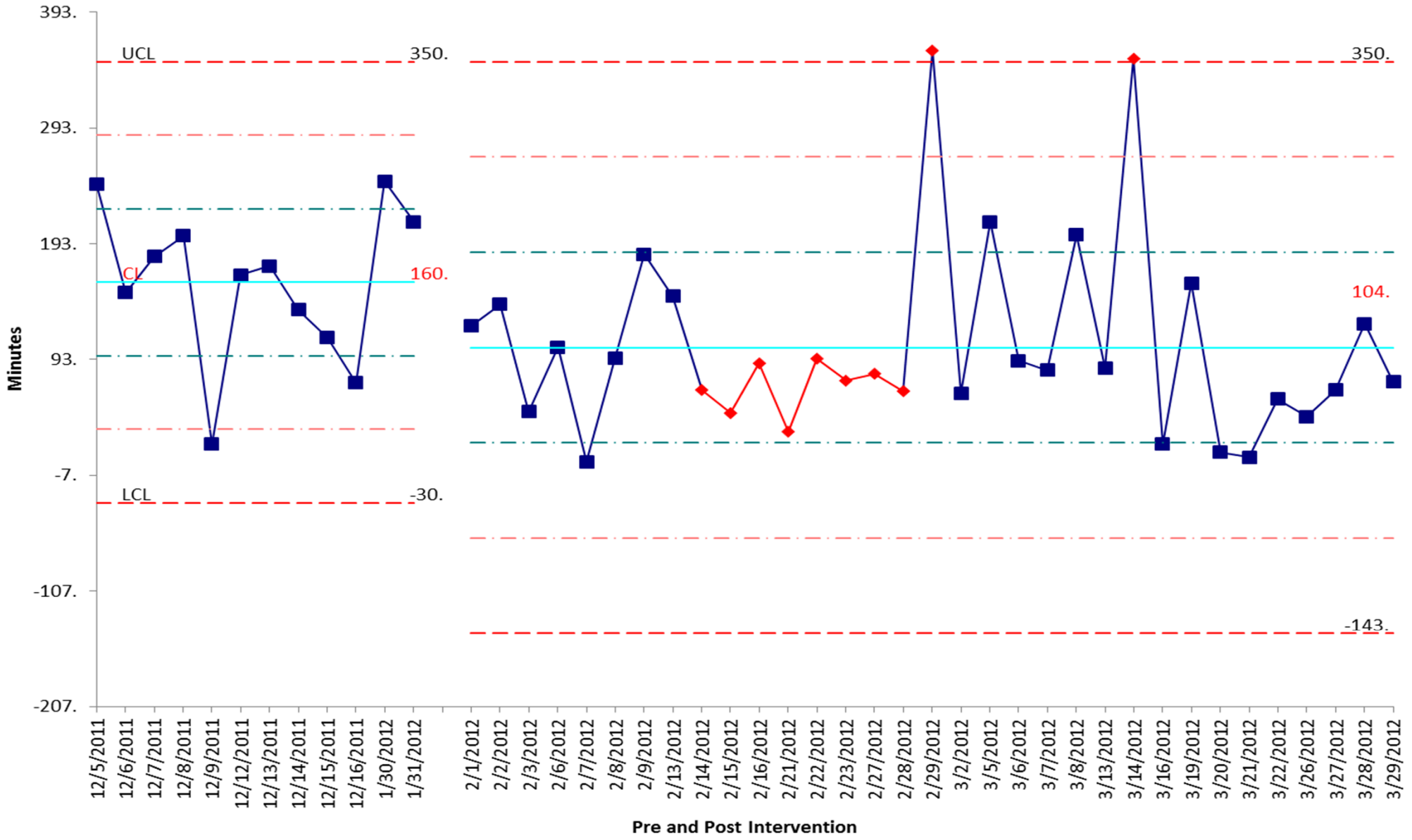- March- decreased the number of providers scheduled per clinic session.

CHECK: Time To Measures

- **Types of measures:** Pre and Post Cycle time measures

- **What will be measured:** Notation of time when the patient arrives to clinic, registers with the clerk, is vitalized by the nurse, is seen by the provider and leaves the provider's office.

Wait Time To See Nurse

Minutes

300.

259.

250.

UCL 227.

200.

150. CL 121.

100. 81.

50.

LCL 15.

0.

-50.

-98.

-100.

-150.

12/5/2011, 12/6/2011, 12/7/2011, 12/8/2011, 12/9/2011, 12/12/2011, 12/13/2011, 12/14/2011, 12/15/2011, 12/16/2011, 1/30/2012, 1/31/2012, 2/1/2012, 2/2/2012, 2/3/2012, 2/6/2012, 2/7/2012, 2/8/2012, 2/9/2012, 2/13/2012, 2/14/2012, 2/15/2012, 2/16/2012, 2/21/2012, 2/22/2012, 2/23/2012, 2/27/2012, 2/28/2012, 2/29/2012, 3/2/2012, 3/5/2012, 3/6/2012, 3/7/2012, 3/8/2012, 3/13/2012, 3/14/2012, 3/16/2012, 3/19/2012, 3/20/2012, 3/21/2012, 3/22/2012, 3/26/2012, 3/27/2012, 3/28/2012, 3/29/2012

Pre and Post Intervention

Wait Time To See Doctor

Results: Average "Time-To" See Nurse and Physician

- **<u>Pre-Intervention</u>**
  - Nurse: Ave 121 minutes

  - Doctor: Ave 160 minutes

- **<u>Post-Intervention</u>**
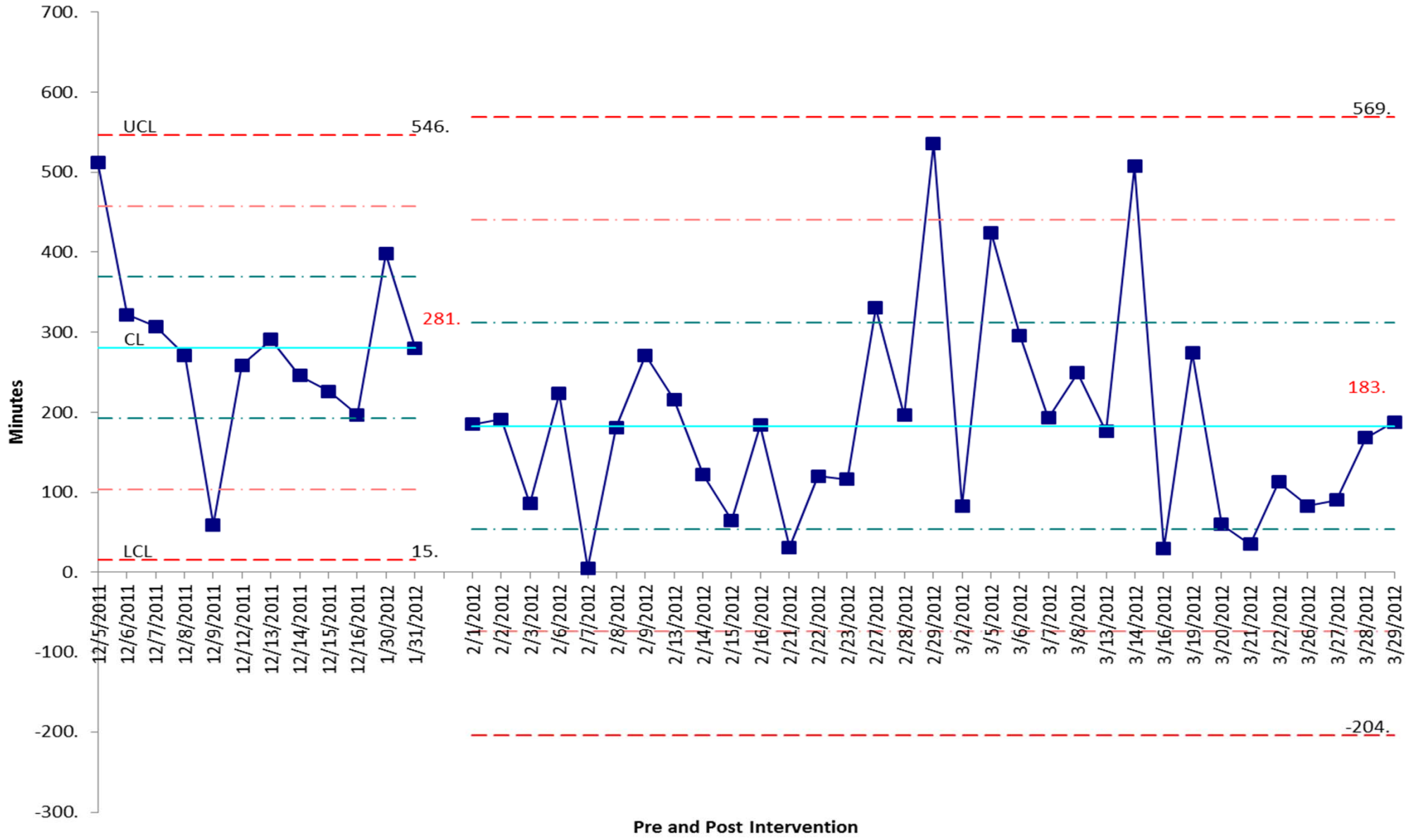 - Nurse: Ave 81 minutes –

    33 % improvement

  - Doctor: Ave 104 minutes –

    29% improvement

Total Wait Time To See Healthcare Professional

Results: Total Wait Time to see Healthcare Professional

Pre-Intervention:

- Ave of 281 minutes

Post-intervention:

- Ave of 183 minutes –

Improvement of 35%

Results: Effect on Average "Time With"

- **Pre-Intervention**
  - With Clerk-4.38 min.
  - With Nurse- **9.59 min**

- **Post-Intervention**
  - With Clerk-4.60 min
  - With **Nurse-7.72 min**

Return on Investment/ What's Next

- Improved patient satisfaction

- Efficiency in clinic internal work-flow

- Improved outpatient care avoids hospitalization and associated costs

- Because VA is training facility , this could aid in preparation for future trainees

- This project prepared me to understand and apply quality improvement to my medical practice