

# Improving Laboratory Monitoring of Metabolic Parameters in Patients Taking Antipsychotic Medications

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## Problem Statement

Patients taking **antipsychotic medications** are high risk for **metabolic syndrome**, including hypercholesteremia, weight gain/obesity, hypertension, and hyperglycemia.

- Guidelines recommend monitoring **blood pressure, weight (BMI), waist circumference, blood sugar, and lipids**
- In practice, parameters not being monitored appropriately, pre-project **rates near zero** in all parameters
- Patients rarely informed of the need for such monitoring

## Purpose of Project/Goals

**Purpose:** To implement an office protocol based on guidelines for monitoring metabolic parameters in patients taking antipsychotic medications

### Project Goals:

Metabolic syndrome monitoring will be completed according to the protocol on all patients taking antipsychotics

All patients with abnormal laboratory values will be referred by the prescribing provider to their primary care provider for co-management of metabolic syndrome

## Methods

### Setting:

- Small **private psychiatry practice** in a suburban area
- Quality improvement project implemented over 15 weeks between August and December 2021

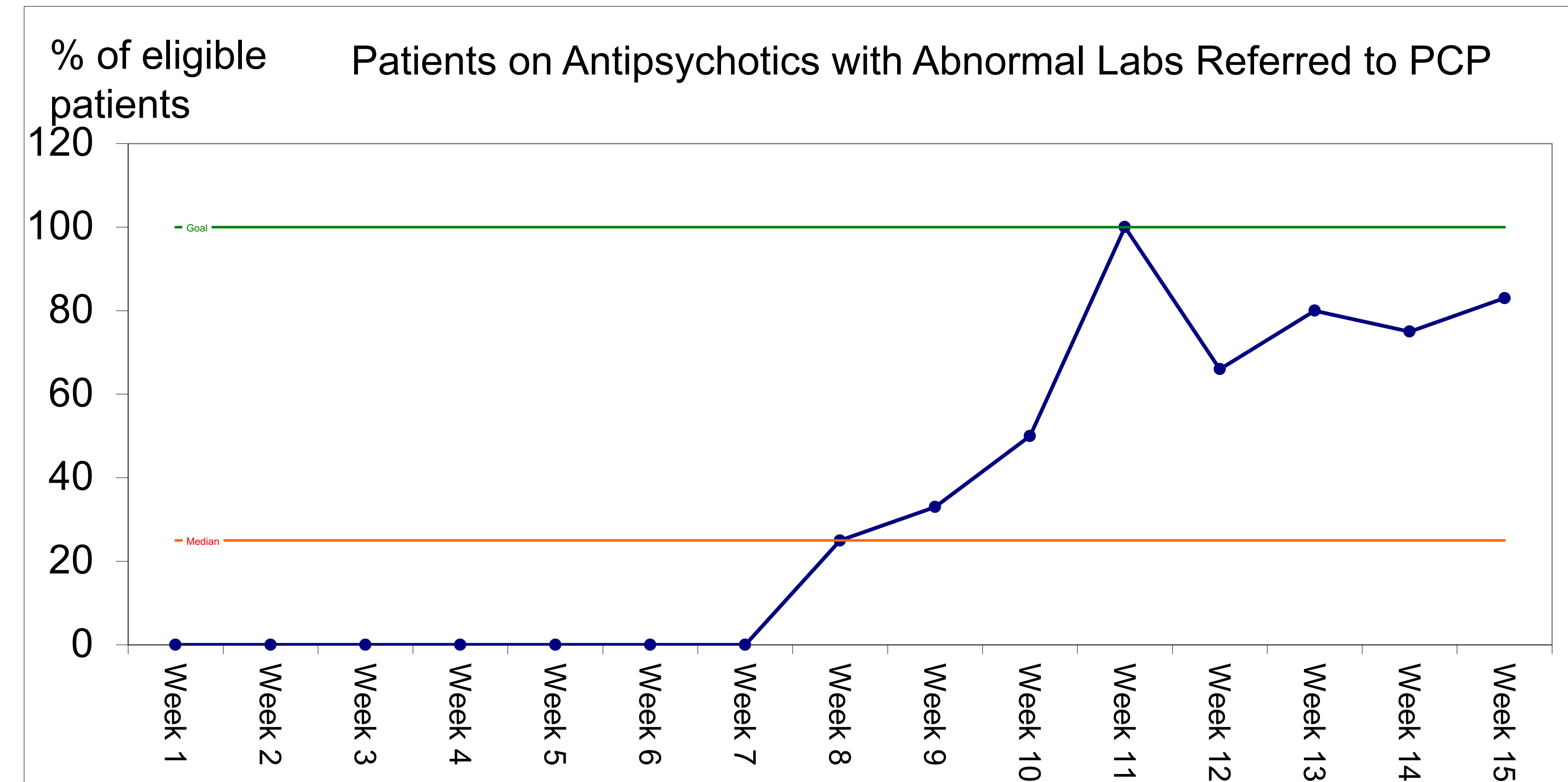
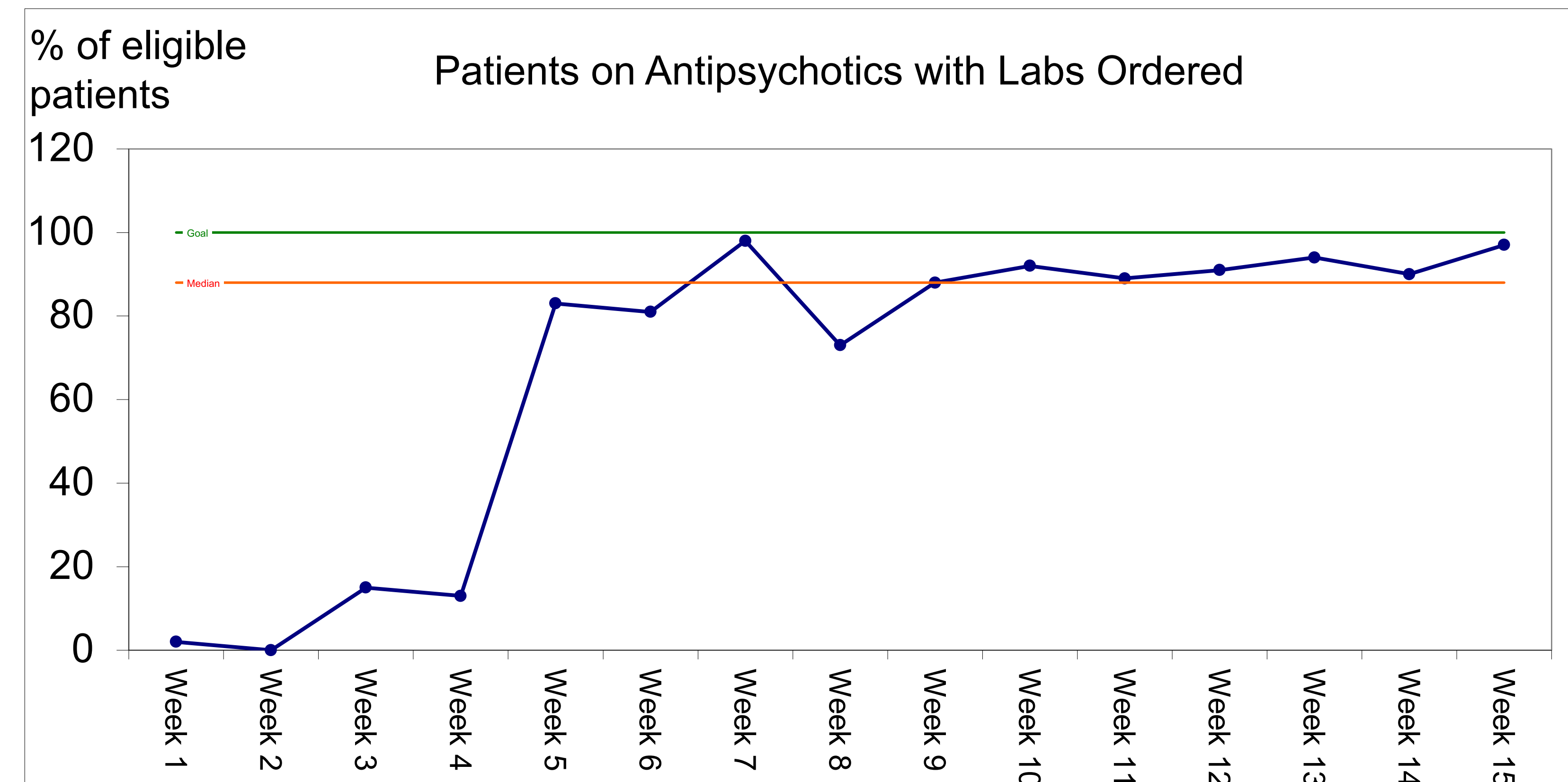
### Population:

- Included **700 patients** taking antipsychotics (no exclusion criteria)
- Included **3 providers** (1 MD, 2 NPs) and **2 medical assistants**

### Interventions:

- Obtained NHSR designation (prior to implementation)
- Education developed and staff trained (week 1)
- Developed/distributed patient education pamphlet (week 2)
- Created standard lab sets for the EHR (week 2)
- Secured formal commitment from clinicians (week 2)
- Completed chart audits weekly (weekly)
- Data compiled manually and logged in Excel spreadsheet on password protected computer (weekly)
- Pre-visit lists provided to practitioners weekly to encourage adherence to the practice change (week 5-week 12)

## Results



Pre-Implementation

Post-Implementation

- 100% of providers and medical assistants were educated regarding the protocol

## Discussion

- Improvement in % of patients having labs ordered
- Up to 100% of patients with abnormal metabolic findings on labwork were referred to their primary care provider
- Instrumental interventions included:
  - Providing pre-visit lists of patients taking antipsychotics** to the practitioners
  - Individual discussions** with those not consistently following the protocol
- Review of literature reveals **similar rates of improvement in other QI projects** utilizing comparable interventions

improvements were noted in median percentages after week 5:

- Labs ordered** (7.5% to 90.5%)
- Patient education distributed** (3% to 85%)
- Labs completed** (1% to 41.5%)
- Vital signs completed** (18.5% to 69%)
- Abnormal labs referred to PCP** (0 to 58%)

### Data analysis:

- Shift noted beginning at week 8 on chart 2
- No trends noted on either chart
- Four runs on chart 1 (insignificant); two runs on chart 2 (too few)

### Limitations/Barriers:

- Low percentage** of patients who had labs completed, approximately 40-50%
- Low motivation** to comply with practice change in providers initially
- Staffing shortages and turnover** during implementation

## Conclusions

- This practice change is **sustainable over time**, as stakeholders:
  - Have **been educated** in the need for metabolic monitoring
  - Perceive that the intervention is a **better option** than asking PCPs to order the monitoring
  - Feel that the intervention is **easy to implement** due to appropriate lab sets available in the EHR
- The protocol will be shared with providers at the practice's other office, allowing for **increased utilization across sites**
- Patients insured through Medicaid must have labs done on a different schedule based on state regulations
- Culture of the organization is supportive of providing the best evidence-based care for the patients

## References

For full reference list, scan QR code:

