

Antibiotics: How Immediate Care Centers Reduced Prescribing by 65%

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Successfully reduced antibiotic prescriptions from 34% (FY19) to 12% (FY21) for stewardship targeted diagnoses through interventions modeled on behavioral science and did not negatively impact clinicians' Likelihood to Recommend (LTR).

BACKGROUND

Problem

- According to World Health Organization (WHO), **antibiotic resistance is one of the biggest threats to global health.**³
- Worldwide human antibiotics consumption is increasing at an alarming rate, an **increase of 46%** from 2000 to 2018.¹
- At least **28% of antibiotics prescribed in the outpatient setting are unnecessary in the US.**²
- An estimated **80-90% of human antibiotic use occurs in outpatient setting in the US.**²

Scope

- All NM Immediate Care Centers (ICCs) only.
- Diagnoses: URI, Pharyngitis with negative strep test, Influenza, and Acute bronchitis

Baseline Data

- In fiscal year (FY) 2019, the **cumulative antibiotic prescription rate for all Immediate Care was 34%** for viral illnesses such as URI, pharyngitis with negative strep, acute bronchitis, and influenza.

Table 1: Voice of Customers - Why Clinicians (n=38) Prescribe Antibiotics

- 31%** Fear of poor Likelihood to Recommend (LTR) & patient satisfaction/expectation
- 27%** Patient perception of the value of clinic visit
- 24%** To treat superimposed secondary bacterial infection
- 18%** Watchful waiting - wait and fill if symptoms worsen

METHODS

Figure 1: Antibiotic Prescription Rate vs. Patient Satisfaction Rate

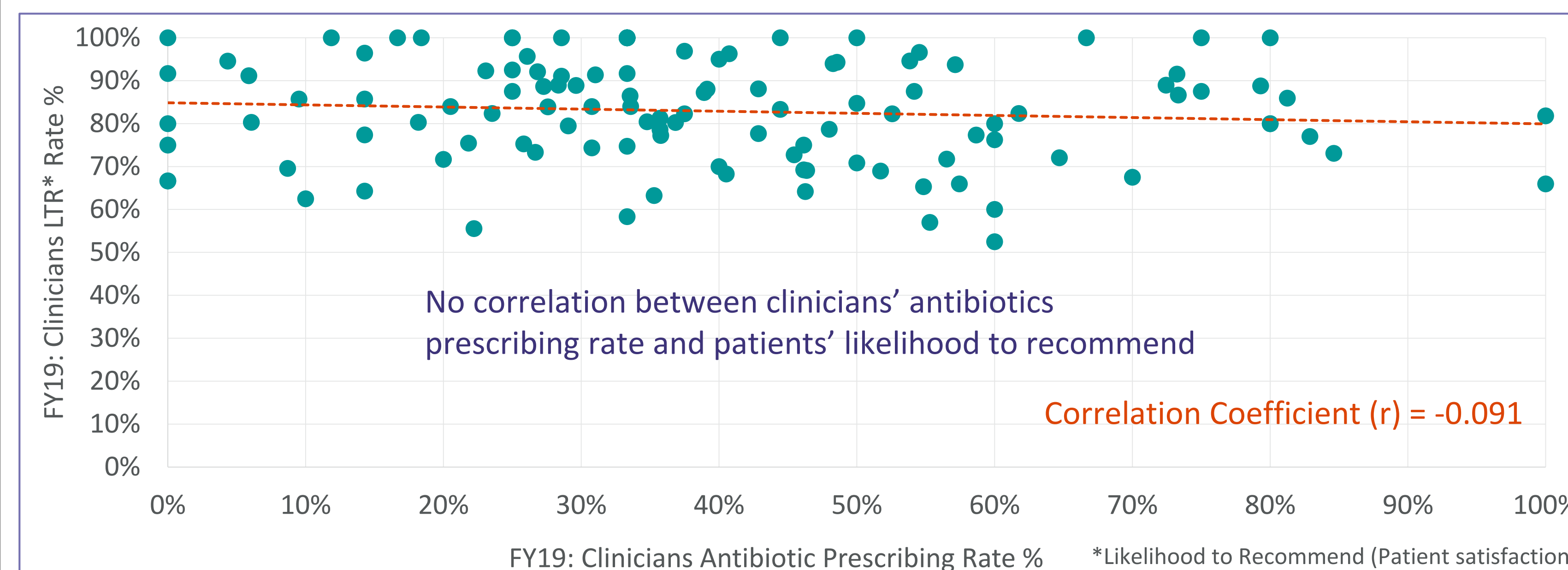
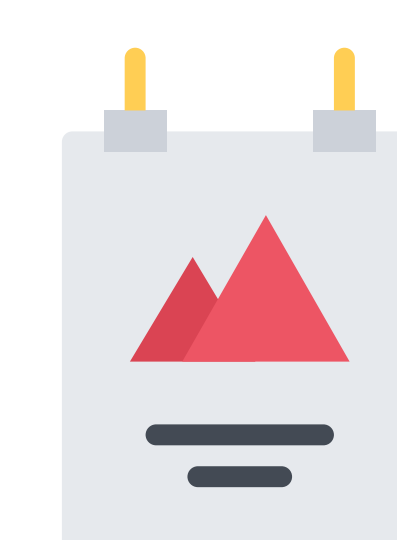


Figure 2: Committee Structure



Key Interventions



CDC Commitment Poster: 18x24 poster signed by practicing clinicians and displayed in each exam room.



Data Sharing: Regional and individual clinician-level comparative antibiotic prescription data shared with all clinicians.



NM Get Smart About Antibiotics: Patient education pamphlet that describes the potential harms of inappropriate antibiotic use made available.



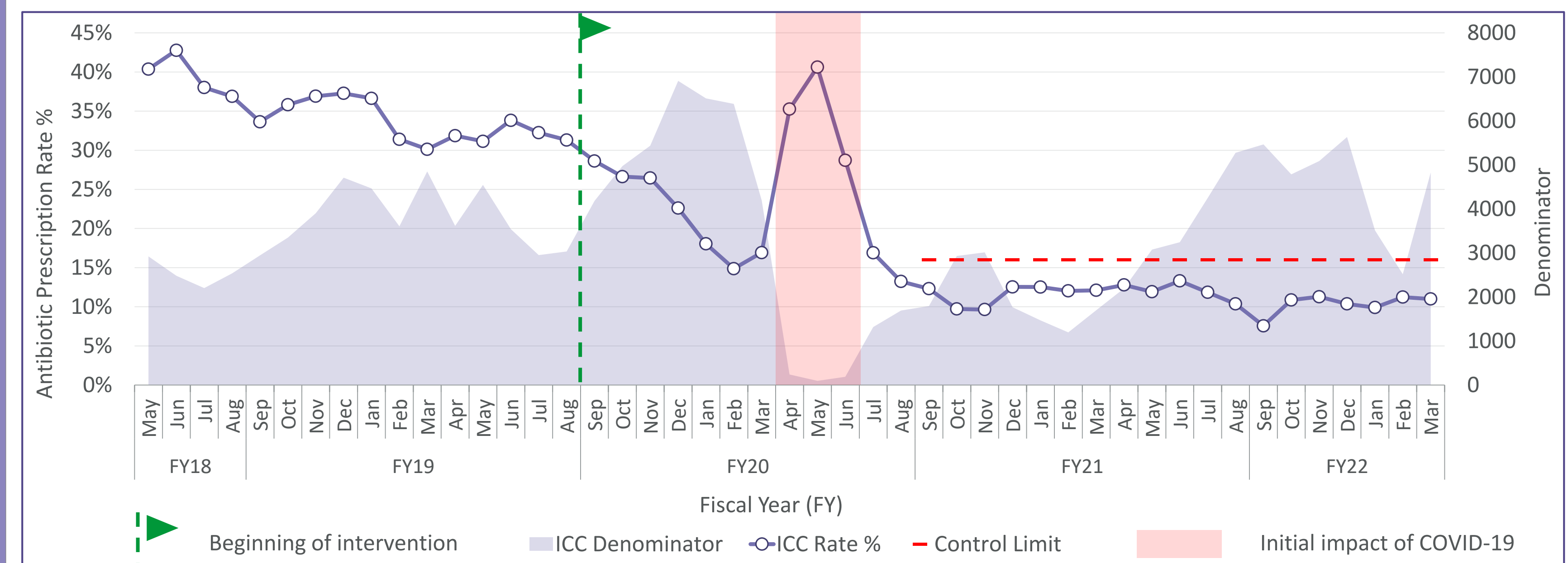
Clinician Education: Internally developed video learning module assigned to all clinicians and interactive presentation by Northwestern Medicine (NM) expert on the appropriate antibiotic use.

RESULTS

Table 2: Immediate Care Centers Antibiotic Stewardship Data

Fiscal Year	Antibiotic Prescription Rate	Impact to Patients	Impact to Clinicians' LTR
FY19	34% Baseline Prescription Rate	15,417 patient were prescribed antibiotics	83% Baseline clinicians LTR
FY20	21% 38% reduction (from FY19)	8,982 patients were prescribed antibiotics	88% 6% relative improvement in clinicians LTR
FY21	12% 43% reduction (from FY20)	3,684 patients were prescribed antibiotics	89% 1% relative improvement in clinicians LTR

Figure 3: Immediate Care Centers Antibiotic Stewardship - Control



CONCLUSIONS

- Leadership engagement and a comprehensive committee structure are essential to intervention success and eliciting behavioral change.
- When numerous competing priorities are present, behavioral nudges that are relatively easy and inexpensive to implement can have a meaningful impact.
- In summary, we addressed clinicians' main concerns through data analysis and education, implemented interventions modeled on behavioral science, and successfully reduced antibiotic prescriptions without negatively impacting clinicians' Likelihood to Recommend (LTR).

REFERENCE

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