

A Quality Improvement Initiative for Influenza Diagnosis and Treatment Within Health Systems Serving American Indian/Alaskan Native (Al/AN) Patients

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INTRODUCTION

Compared with the general US population, American Indian and Alaskan Native (Al/AN) populations suffer disproportionately from influenza illness.¹⁻³ Thus, in addition to prevention strategies, health care professionals (HCPs) caring for Al/ AN populations need to be supported in best practices for diagnosis of influenza, as well as evidence-based utilization of antiviral medications.

This project aimed to identify practices, knowledge, and confidence in diagnosing and treating influenza in health systems serving Al/AN communities and to provide education to support alignment with IDSA guidelines.

METHODS



Anonymous baseline surveys were completed electronically by HCPs from Cherokee Nation Health Services (CNHS) and the Northwest Portland Area Indian Health Board's teleECHO program. The surveys included items to assess HCP knowledge, confidence, and current practices related to influenza surveillance, diagnosis, and treatment.



The baseline survey responses were used to inform a 2-part series of live virtual educational sessions. The sessions were led by faculty from each health system and included (1) a review of the baseline HCP survey findings, (2) case-based applications of recent evidence and guidelines, and (3) teambased action planning.



Three months after the education, follow-up interviews were conducted with system leaders to assess progress toward clinical teams' action plans.

CONCLUSIONS

Knowledge and confidence in influenza management improved after the training, as did system-wide alignment with IDSA-recommended diagnostic testing. Future studies are warranted to evaluate the clinical impact of educational initiatives, as well as the cost-effectiveness and accessibility of influenza testing and treatment interventions in Al/AN health care settings.

- 1. Gounder PP, et al. *Open Forum Infect Dis*. 2014;1(1)ofu031.
- 2. Groom AV, et al. *Am J Public Health*. 2014;104(Suppl 3):460-9.
- 3. Indian Health Services. Disparities Fact Sheet. Available at https://www.ihs.gov/newsroom/factsheets/disparities

DISCLOSURES

The study reported in this abstract was funded by educational grants from Genentech. The grantor had no role in the study design, execution, analysis, or reporting.

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Figure 1a. Baseline Survey Respondents (N = 247)

HCP Participants in the Initiative

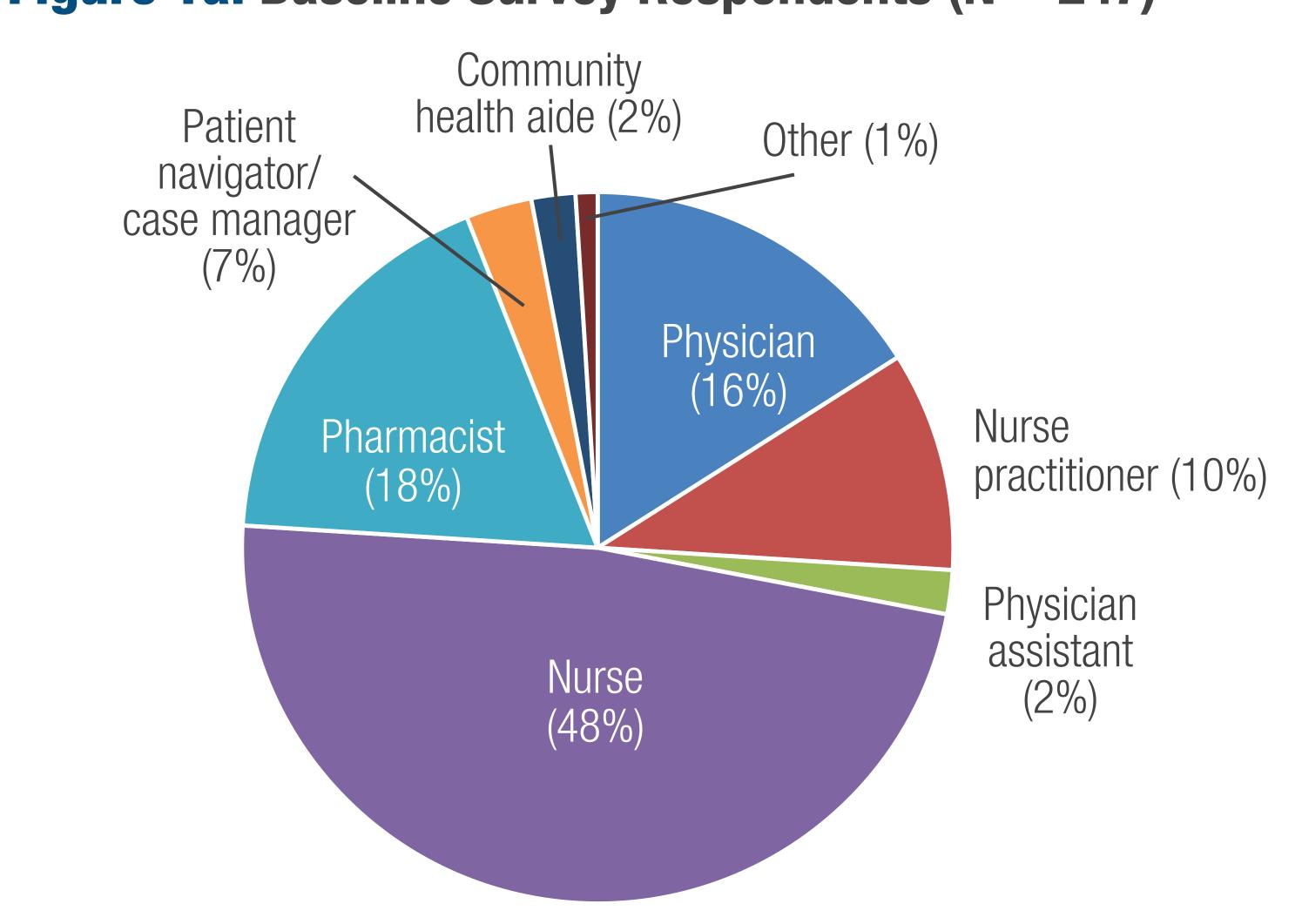


Figure 1b. HCPs in Attendance at Live Education Sessions

Session 1 (N = 149)Timely Diagnosis and Community Engagement

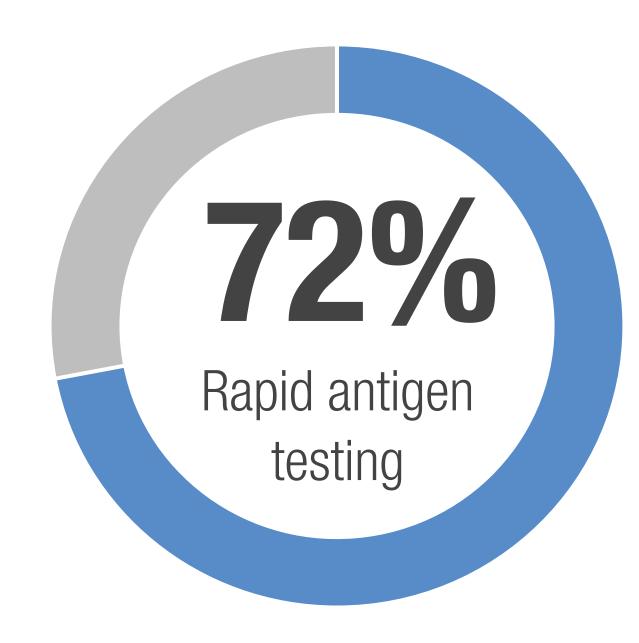
treatment is not

indicated

Session 2 (N = 90)Antiviral Selection and Treatment Initiation

RESULTS

Figure 2. Methods Used to Diagnose Influenza **Before the Educational Initiative**



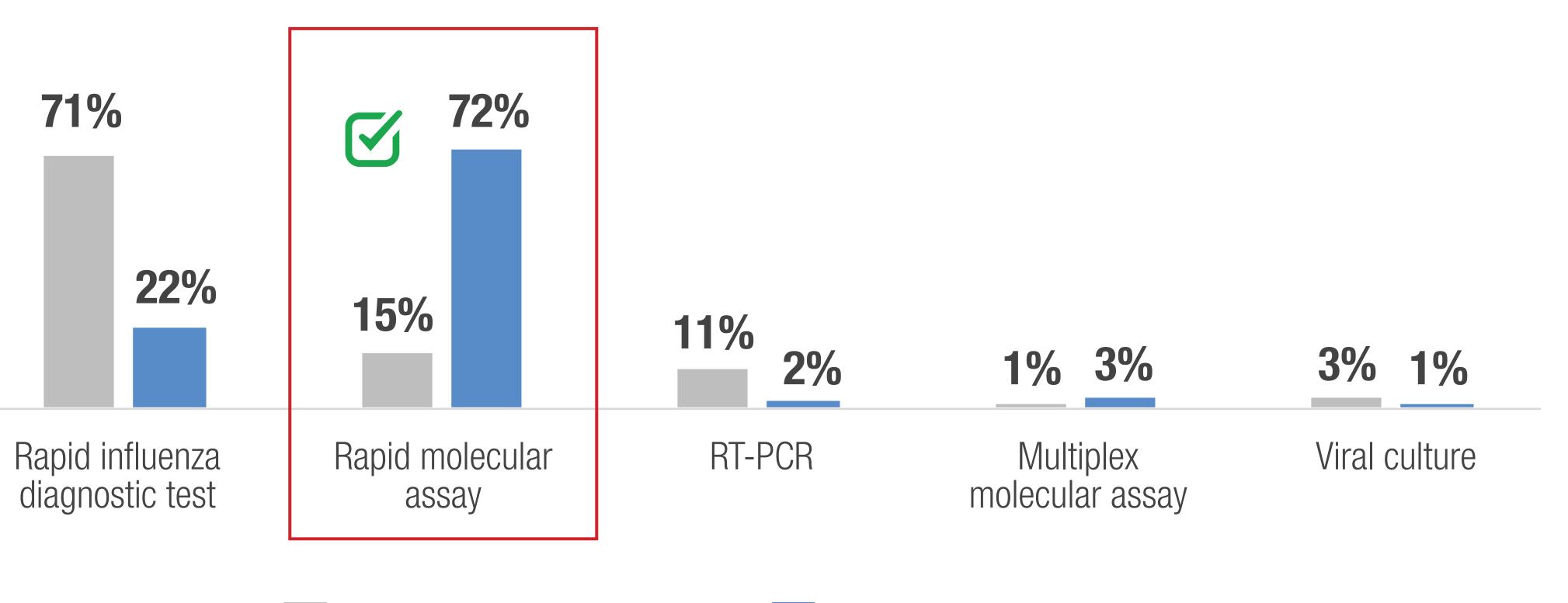
Other methods reported:

- 13% Clinical assessment only
- 6% Rapid molecular assays
- **4%** RT-PCR
- Immunofluorescence assays
- 1% Viral culture

Influenza Diagnosis

Figure 3. Knowledge of Guidelines for Influenza Diagnostic Testing

According to the IDSA guidelines for influenza management, which of the following tests is preferred for outpatient diagnosis of influenza?



Pre-Activity (N = 149)

Post-Activity (N = 99)

3-Month Follow-up Survey



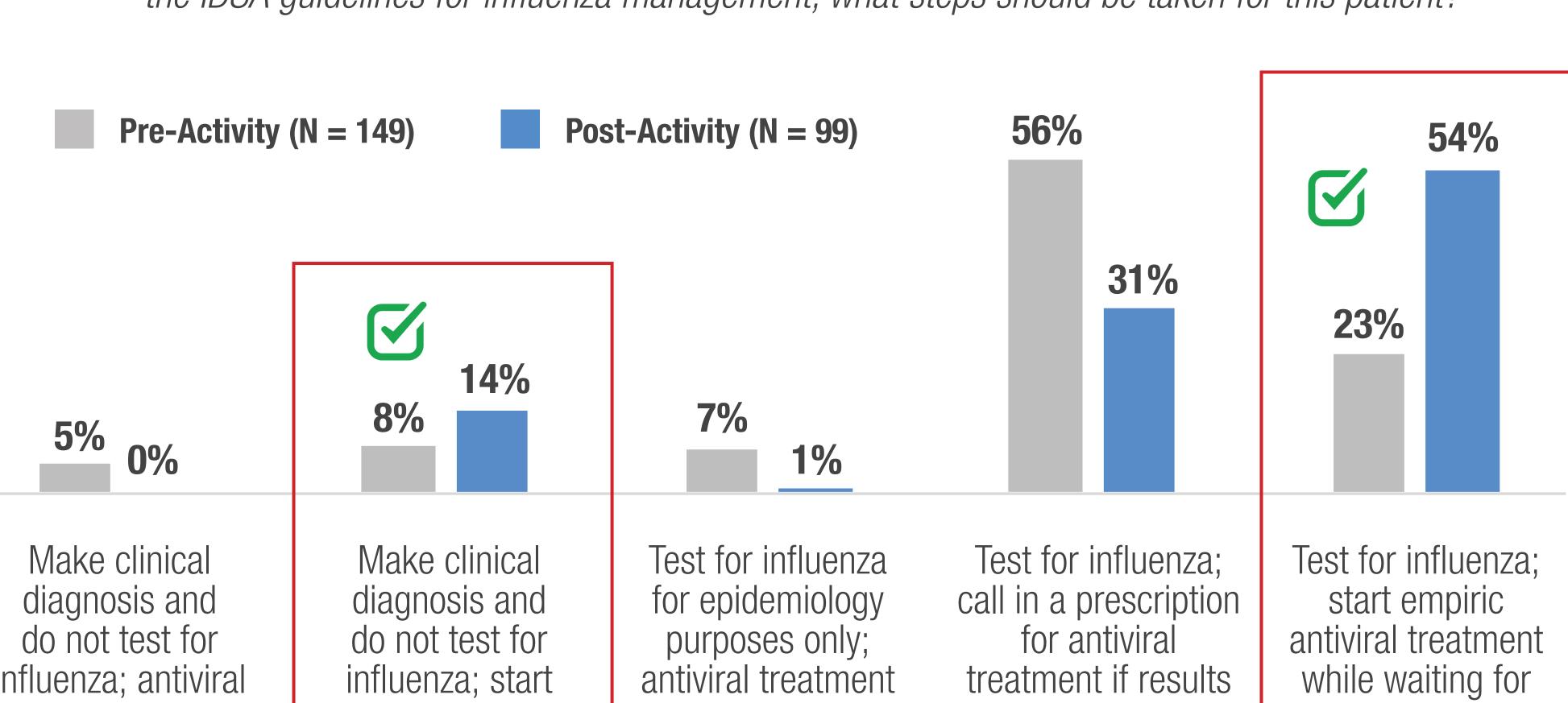
All 9 CNHS outpatient health centers switched from rapid antigen to molecular testing for influenza diagnosis after the training

Influenza Treatment Decision-Making

Figure 4. Case-Based Competence in Antiviral Initiation

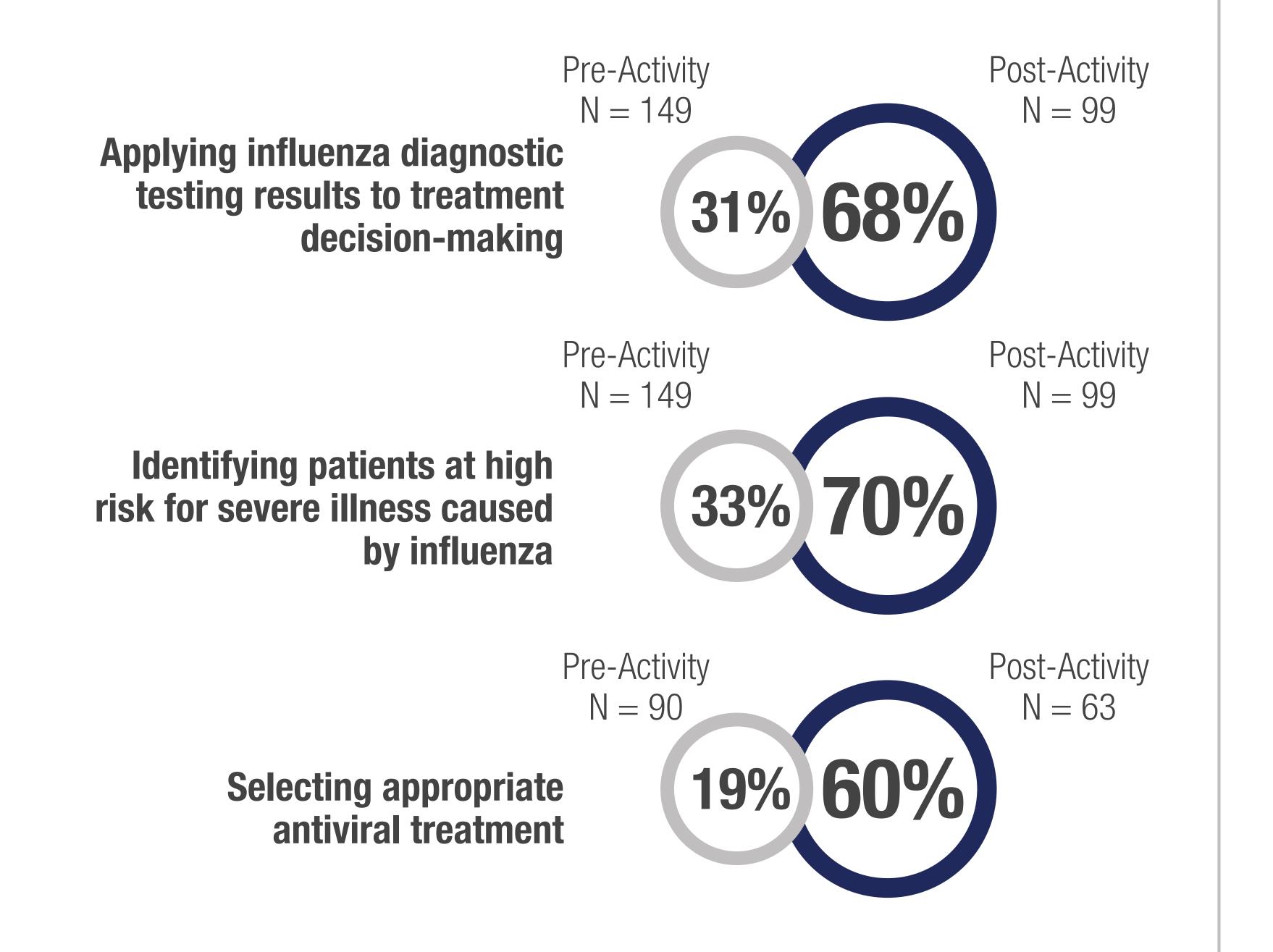
antiviral treatment

A man aged 56 with coronary artery disease presents to an urgent care clinic with fever, chills, and body aches, but is otherwise stable and does not require hospital admission. According to the IDSA guidelines for influenza management, what steps should be taken for this patient?



is not indicated

Figure 5. HCPs With High Confidence in Influenza Management



Action Plans

Figure 6. Action Plans Prioritized by HCPs After the Training



61%

Engagement



50% **Develop Criteria for Immediate Antiviral Treatment**



57% **Review Guidelines** and Data



50%

Improve Patient Adherence to Treatment