Health System Strategies for Advancing Equity and Reducing Disparities: COVID-19 Treatment and Management

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Background

- Historically marginalized populations, including Black and Hispanic communities, experience higher rates of COVID-19 infection, hospitalizations, mortality, delayed treatment, and inequitable prescription of outpatient therapies.[1-6]
- Interventions to address health equity are complex, however established frameworks such as the National Institute on Minority Health and Health Disparities Research Framework can guide multi-level needs assessment and interventions.[7]

Methods

- Three health care organizations (HCOs) completed a mixed methods pragmatic needs assessment to identify opportunities and inform multi-level interventions in health equity for COVID-19 management.

	Measures	Data Collection Method	Timepoint
Quantitative	COVID-19 Treatment[a] COVID-19 Treatment Fills[b]	Electronic Health Record (EHR) per standard measures specification	September 2022-December 2024 reporting in 6-month increments
Balance[c]	COVID-19 Vaccination[d]	EHR	Same as above
Qualitative-Patient	Demographics, healthcare access and utilization,[8] knowledge and attitudes,[9] minority patient experience in healthcare[10-12]	Survey with dissemination strategies including patient newsletters, QR codes in clinic, direct approach	January-May 2024
Qualitative-Provider	Demographics, knowledge and attitudes,[13] recommendation practices, Bias in healthcare,[14-15] multiculturally competent sensitive service system assessment[16]	Survey with dissemination strategies including email, presentation at department meetings, direct approach	January-May 2024

[a] Age 18+ at start of reporting period, ≥1 interaction with HCO within 36 months prior, documented acute COVID-19 diagnosis in reporting period, excluded if contraindicated for any COVID-19 treatment.
[b] Number of patients with evidence of pharmacy fill of prescribed COVID-19 treatment in ambulatory setting (including urgent care and ED). Subset of patients for which HCO has access to fill data was acceptable.
[c] A balance measure is a type of performance metric used to ensure that improvements in one area do not cause unintended negative consequences in another. It helps maintain overall system stability by counteracting potential trade-offs that come with focusing too much on a single goal.
[d] Age 18+ at start of reporting period, ≥1 interaction with HCO within 36 months prior, at least 1 dose of a vaccine administered.

Results

- 109 provider and 467 patient surveys were completed across the 3 HCOs. Challenges gathering feedback from diverse populations were troubleshot by all HCOs using various strategies.
- HCOs reviewed EHR data for over 1.8 million patients across multiple time points to assess changes in outcomes of interest.

Patient and Provider Insights (Qualitative Measure)

- Delayed testing for COVID-19 and care seeking among patients when symptomatic was noted. 10%-26% of patient respondents would wait 4+ days from symptom onset to take a COVID-19 test and 21%-25% would wait 6+ days before seeking care.
- 10%-30% of patient respondents had concerns about COVID-19 medication side effects or how the medication works with 6%-30% having never heard of any medicine for COVID-19.
- In comparison to being prescribed any medicine by their provider, patients were 10%-20% more likely to not trust or feel unsure about trusting COVID-19 medicine prescribed by their provider
- 27%–30% of patients from historically marginalized racial/ethnic groups felt that their race/ethnicity negatively impacted the quality of their care in general.
- Providers reported high confidence engaging with treatment and vaccine hesitant patients and utilizing strategies to reduce bias in communication (80%+), however fewer than 50% reported speaking with coworkers about bias.

COVID-19 Treatment Insights (Quantitative Measure)

- See Figure 2 and accompanying text

COVID-19 Vaccination Insights (Balance Measure)

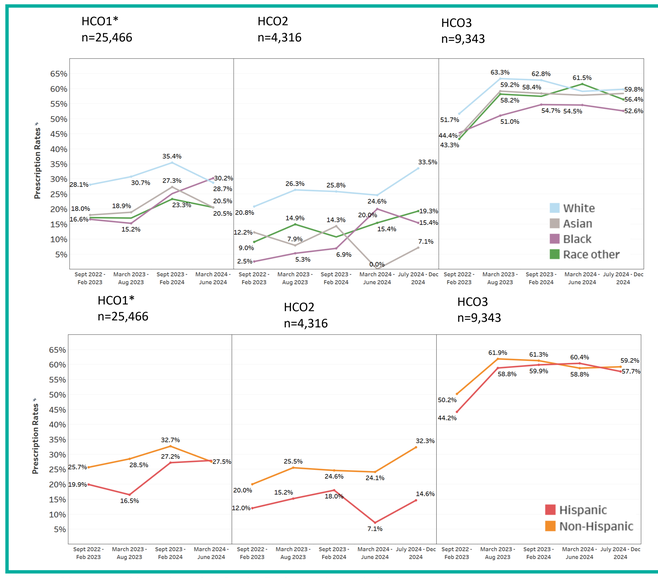
- Throughout the project period and unrelated to targeted interventions:
  - All groups observed increases in COVID-19 vaccination (4.1%-12.9% increase).
  - HCO1 observed higher vaccination rates among Black and Hispanic patients and HCO3 observed a reduction in the disparity between Black and White patients.
  - Other disparities by race and ethnicity persisted/slightly increased during the project.

Results

Figure 1: Opportunities for Intervention across All HCOs

- Address side effect concerns from patients by sharing treatment benefits, especially for those with high-risk conditions
- Address provider concerns on viral rebound by sharing FDA/CDC reports and current research
- Encourage high-risk patients to seek care soon after initiation of COVID-19 symptoms or testing positive
- Provider education on importance of timely treatment for high-risk patients, regardless of symptom severity
- Standardization of treatment protocols to reduce provider bias

Figure 2: COVID-19 Treatment Prescription Rates by Race and Ethnicity



*Note: HCO1 was unable to share data for the final reporting period.

COVID-19 Treatment Insights (Quantitative Measure)

- All HCOs saw increases in prescribing of COVID-19 medications over time (0.1%-13.1% increase).
- HCO1 reduced prescribing disparities between Black and White patients by 13%.
- HCO2 and HCO3 saw variable prescribing disparities over time with some periods of reduced disparity (2%–14% reduction) for Black patients in comparison to White patients.
- HCO1 and HCO3 reduced prescribing disparities for Hispanic patients in comparison to non-Hispanic by 7% and 4.4%, respectively.

Figure 3: Multi-Level Interventions Implemented by HCOs

Health System Level

- Mandated cultural competency training
- Website updates to highlight high-risk conditions and available treatment options
- Community partnerships

Provider & Point of Care Level

- Smartphrases to standardize care
- Provider education on treatment guidelines and medication efficacy

Patient & Community Level

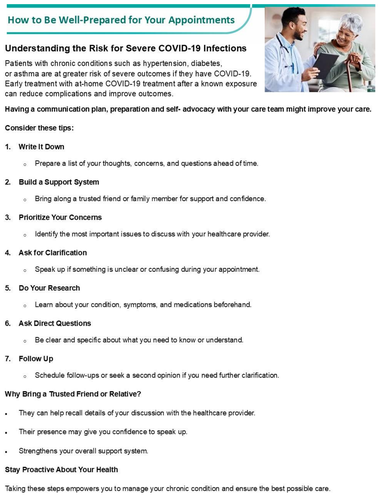
- Kiosks to address SDOH in community and provide COVID-19 education and outreach
- Patient empowerment and advocacy guides to facilitate patients seeking care for COVID-19

Figure 4: Sample of Multi-Level Interventions Implemented by HCOs

From left to right: (1) screenshot of mandated provider and staff cultural competency training reviewed health equity terminology and case studies for COVID-19 and maternal health (2) Patient facing tool developed as part of a broader campaign for patient empowerment and advocacy in healthcare for historically marginalized populations; (3) Workflow for smartphrase COVIDPOSITIVEPRV used when patients called in reporting COVID-19 positive home test. Similar workflow was developed for COVID-19 testing completed by HCO.

1.

2.



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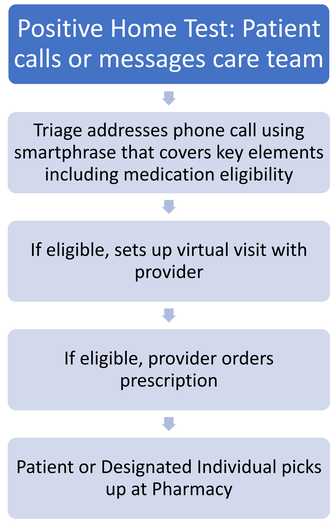

Conclusions & Future Steps

- This study highlights the need for patient, provider, and health system level needs assessments to identify inequities and potential biases to guide HCOs in the development of effective, targeted interventions.
- Understanding local context is a key component for identifying the most appropriate, targeted health equity interventions.
- HCOs were encouraged to re-assess the long-term impact of interventions in 6 months using the quality measures tracked in this study.
- Implemented interventions were an initial step to address health equity and HCOs were encouraged to continue to build upon completed work including scaling up interventions and implementing additional interventions.

Acknowledgements & References

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To view references, scan this QR code:

To learn more about this project, read about the kickoff here: