AMGA

Closing Care Gaps for All Communities:

COVID-19 Management

This toolkit was supported by Pfizer Inc.

Pfizer

Introduction to Closing Care Gaps for All Communities: COVID-19 Management

ABOUT THIS TOOLKIT

AMGA developed this toolkit in collaboration and with funding from Pfizer. Subject matter experts and 3 health care organizations with experience in health equity interventions and COVID-19 management were also engaged.[1] The information and resources in this toolkit aim to help health systems identify and address health equity issues across a variety of topic areas by presenting an example through the lens of COVID-19.

TARGET POPULATION NEEDS ASSESSMENT

BUY-IN AND IDENTIFYING PARTNERS

INTERVENTION DEVELOPMENT, ROLLOUT, AND EVALUATION

SITE A CASE STUDY[1]
Provider and staff training, community engagement

SITE B CASE STUDY[1]
Smartphrase, patient messaging, website

SITE C CASE STUDY[1]
Provider education, patient advocacy tools

Site A is located in the Northeast U.S. with 100+ total sites of care and an adult patient population of 250,000+.[1]
Site B is located in the Midwest U.S. with 40+ total sites of care and an adult patient population of 200,000+.[1]
Site C is located in the West U.S. with 200+ total sites of care and an adult patient population of 300,000+.[1]

All sites also offer telehealth options for primary care as needed.

APPENDIX | Considering Multi level Interventions [2] | References

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Creating Interventions for Health Equity [3-5]

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Population Identification

- Identify a topic area of interest to you or your health system
- Review the literature for possible equity issues
- Review data within your EHR and stratify to identify local equity challenges and measure the gap
- Stratifications may include age, sex, insurance, race, ethnicity, SOGI, or comorbidities

Conduct a Needs Assessment

- Gather feedback from patients: knowledge, attitudes, beliefs, practices, and experiences interacting with health system[6-12]
- Gather feedback from clinicians: knowledge, attitudes, beliefs, practices, and experiences with targeted population [13-16]
- Purposeful sampling in community using multiple methods of approach
- Identify partners including clinical leadership, frontline team members, and external partners

Abbreviations: EHR, electronic health record; SOGI, sexual orientation and gender identity.

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Use Data to Drive Health Equity

Strategy	What It Enables for Health Equity	COVID-19 Management
Share Data Internally and Externally	Reveal disparities by sex, race/ethnicity, ZIP code, language, insurance, and age	Prescribing or vaccination rates by region, race/ethnicity, or other stratifications
Disaggregate Data	Direct aid to high-risk areas most in need of resources	High-risk groups, practices, or sites with low COVID-19 treatment prescribing rates
Target Resource Allocation	Build culturally relevant responses to challenges	Non-English language outreach via community partners; standardized protocols to ensure limited biases in healthcare
Tailor Interventions	Identify and respond to pressing nonmedical needs for high-risk patients	Referrals for housing, employment, or food resources in conjunction with facilitating adherence to treatment for COVID-19
Integrate SDoH Into EHRs	Create accountability and transparency, which helps build trust across communities	Identify positive deviants for shared learning of best practices among peers and high-risk groups for COVID-19 treatment

Abbreviation: SDoH, social determinants of health.

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Gathering Patient Feedback

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Plan Ahead:

- Set a dissemination timeline and schedule targeted check-in dates after launch
- Review responses periodically to ensure you're reaching the intended demographic
- Consider oversampling underrepresented or high-priority populations

Facilitate Completion:

- Partner with trusted external groups (eg, FQHCs, community organizations, payors)
- Engage internal staff (eg, social workers, patient experience teams, care teams)
- Start with a small clinic or pilot site, then scale gradually

Enhance Accessibility:

- Use paper surveys for patients with limited tech access (staff can input electronically)
- Display flyers and QR codes in waiting areas or exam rooms
- Offer iPads (if available) in clinics for real-time survey completion
- Send direct emails (if approved) or integrate surveys into clinic check-in or EHR

Patient Survey COVID-19

Patient Survey COVID-19 Spanish

Abbreviation: FQHC, Federal Quality Health Center.

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Gathering Clinician Feedback

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Planning & Follow-Up:

- Use AMGA COVID-19 survey questions as a resource
- Set a clear dissemination plan and response deadline
- Schedule targeted check-in dates post deployment
- Review responses periodically to monitor target group engagement
- Consider offering incentives (eg, gift cards, raffles, food)
- Plan to share back results with clinicians

Outreach & Promotion:

- Present survey at provider, departmental, and medical executive meetings
- Use personal outreach to explain survey purpose, impact, and data use
- Send emails under leadership names (eg, CEO, clinic director) to boost credibility
- Distribute pulse surveys or direct email links
- Post flyers and QR codes in clinics or hospitals

Patient Survey COVID-19

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Building Multidisciplinary Partners & Securing Buy -in

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Abbreviation: APP, advanced practice provider.

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Building Multidisciplinary Partners & Securing Buy -in

Physician & APP Leadership

- Engage from top down and bottom up
- Senior leadership buy-in is key but not sufficient alone
- Primary care, urgent care, or specialists as needed
- Care team members that are "boots on the ground" needed to take ownership of health equity and interventions

Champions

Quality

Pharmacy & Nursing

Health Equity Advisors

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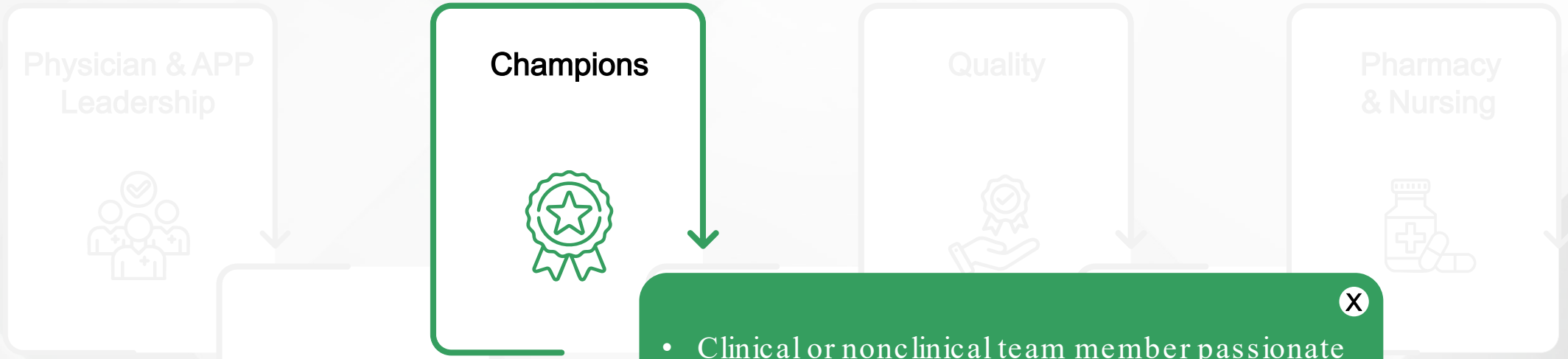
Building Multidisciplinary Partners & Securing Buy -in



- Clinical or nonclinical team member passionate about health equity
- Excellent communicator and able to "tell the story" of health equity
- Boots on the ground knowledge
- "Doer" that supports shared responsibility

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Building Multidisciplinary Partners & Securing Buy -in

- Population health analytics support for pre and post evaluation and quality measures available in EHR
- May be able to support embedding of Best Practice Advisories or dashboards with a health equity focus

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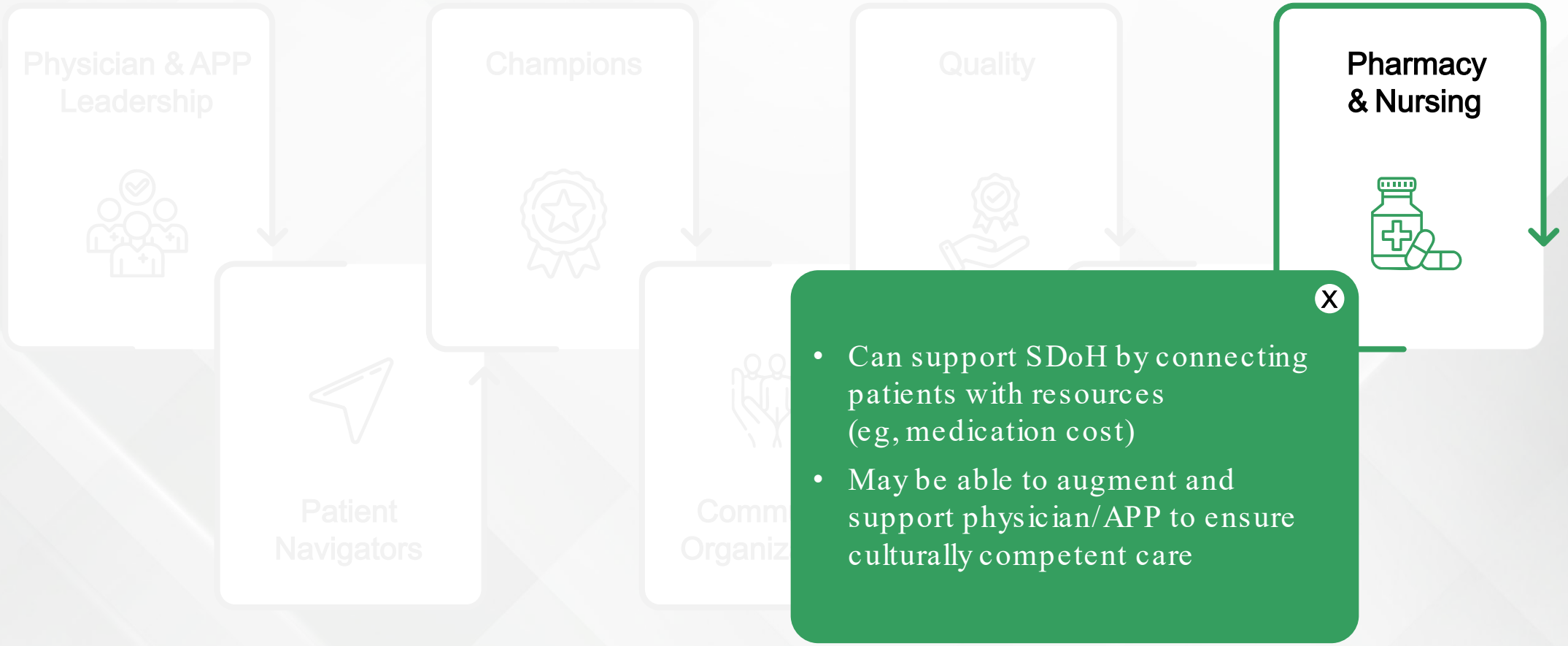
Building Multidisciplinary Partners & Securing Buy -in



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Building Multidisciplinary Partners & Securing Buy -in

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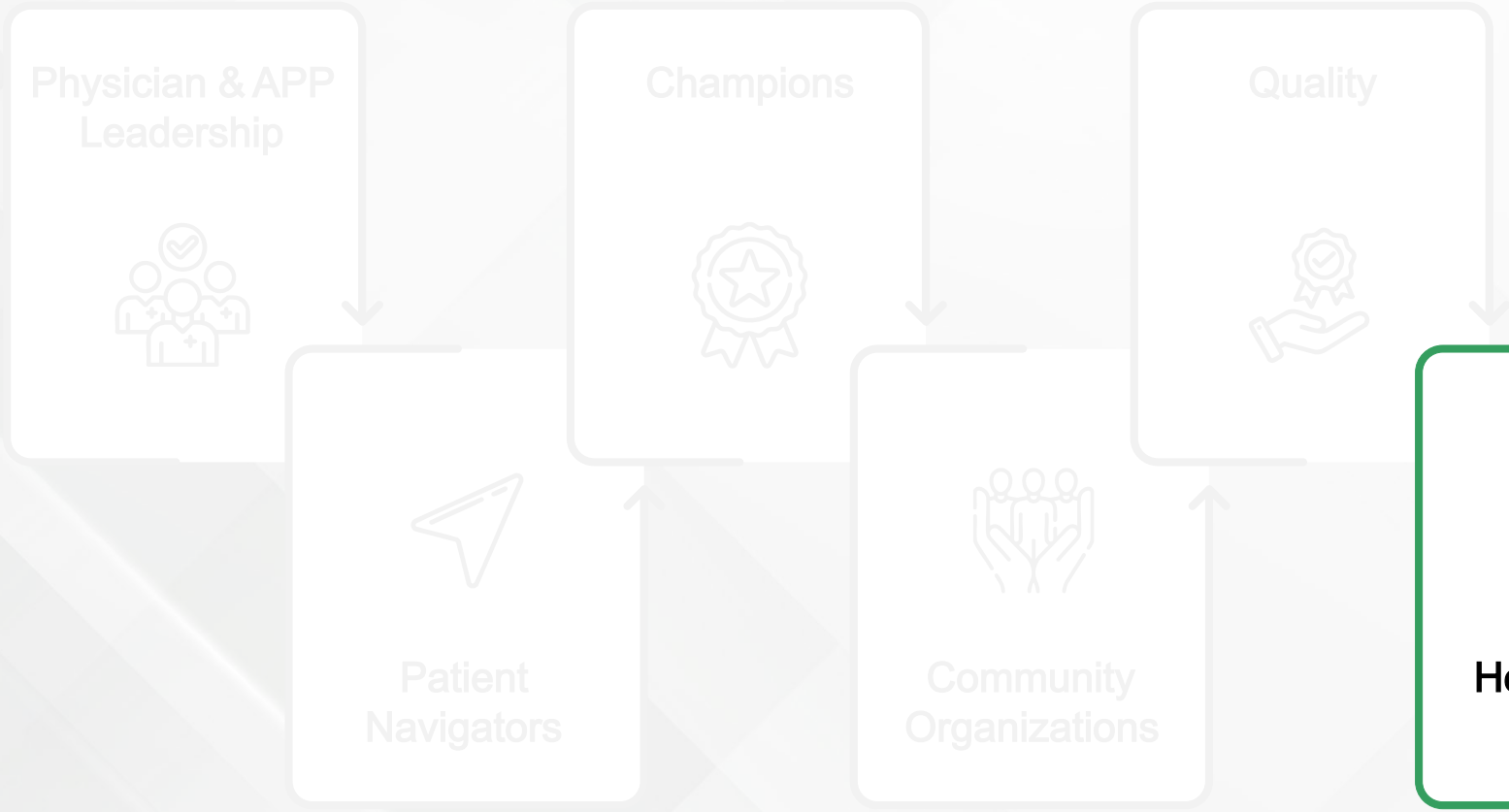

- Engage experts in health equity to support identification of root causes and targeted interventions
- Emphasize implementation of systematic interventions that are not "one and done"

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Making the Case for Health Equity[17]

Integrating Health Equity Into Strategy and Operations

- Involve health equity leaders to identify unmet needs and shape solutions
- Deliver care and services tailored to diverse populations and their specific drivers of health
- Use an equity-centered approach to serve all individuals—regardless of race, gender, or orientation
- Many organizations lack metrics: 32% of equity leaders aren't measuring financial impact
- 56% of executives say evaluating equity initiatives is a top priority
- Health equity leaders should help set goals, assess current status, and define paths to improvement

FIGURE 3

A glimpse of how health disparities can increase health care spending

Disease area	Health disparity	Annual cost of disease (in US$ billions)	% of spending associated with disparity	Unnecessary spending associated with the disparity (in US$ billions)
Diabetes	Black adults are **60%** more likely than white adults to be diagnosed with diabetes and are two to three times more likely to have complications	$327	4.8%	$15.6
Asthma	The asthma rate for those living under the FPL is **11%** compared to **~7%** for those that are **>2x** the FPL	$56	4.3%	$2.4

Sources: Deloitte analysis of data from the US Department of Health and Human Services, Centers for Disease Control and Prevention, and American Diabetes Association.

Deloitte Insights | deloitte.com/insights

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Making the Case for Health Equity[17]

Strategic Questions to Guide Action

- How is equity integrated into understanding our community's needs?
- Are we investing in social, economic, and environmental drivers of health?
- How can we shape the narrative to highlight the value of health equity?
- What policies and advocacy support equity advancement?
- How do we ensure our partners uphold equity values?
- What's our plan for long-term sustainability and impact?

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Multilevel Health Equity Interventions [3]

Domain of Influence	Component/Resource	Examples
Behavioral	• Provider education • Patient education	• Provider bias training • Patient education on symptoms, high-risk conditions, treatment options
Environment (physical and sociocultural)	• Culturally/linguistically appropriate materials • Utilize community members as educators • Existing resources within health systems	• Community-based organizations (CBOs) and lay health educators • Ambassador program
Health Care System	• Existing infrastructure • Utilize staff as champions • Existing health partners in local community • EHR integration	• Mobile units • Promotoras (lay Hispanic health educators) • Physician champions or ambassadors • Partnerships with local health departments and community health organizations, and FQHCs • Add COVID-19 to measure dashboard • Treatment protocol–based checklists

Intervention domains of influence are based on the National Institute on Minority Health and Health Disparities Research Framework. Intervention components or potential resources are elements that your healthcare organizations (HCOs) could examine further as part of a needs assessment for health equity interventions. Examples provided are interventions discussed during this study's kickoff meeting.

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Multilevel Health Equity Interventions [3]

These takeaways apply in both the healthcare system/provider and patient/community levels

Intervention Considerations

- COVID-19 fatigue
- Sustainability of interventions
- Understand where patients are receiving treatment outside of ambulatory clinics (eg, ED, specialists, urgent care)
- Take actions on what data are already collected
- Do CBOs have anything to share?
- Establish long-term partnerships
- Feedback loops
- Leverage existing infrastructure (eg, mobile units)
- Start small ("going deep" within a narrow population)

Intervention Partners

- All departments
- CBOs (health- and nonhealth-focused)
- Churches
- Employee resource groups
- FQHCs
- Local health departments
- Other HCOs

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Creating Interventions for Health Equity[3]

Develop Interventions

- Analyze data gathered from patients and clinicians
- Work with internal and external partners
- Create a team to develop appropriate interventions based on data and feedback from partners

Plan Intervention Rollout

- Gather buy-in from top down and bottom up
- Determine how intervention(s) will be objectively evaluated
- Consider multilevel interventions

Implementation & Sustainability

- Set standard time points to check in on intervention implementation
- Systematically gather feedback on interventions from patients and clinicians
- Iteratively refine interventions based on feedback
- Review EHR data for impact on patient outcomes
- Consider opportunities to build upon interventions

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Case Study: COVID-19 Management & Health Equity

In September 2023, AMGA Research launched a study, “Reducing Health Inequities for Populations Experiencing Disparate Care in the Context of COVID-19,” that was developed in collaboration with and funded by Pfizer, Inc[3]

3 health systems with a demonstrated need were engaged to develop and implement interventions to improve health equity for Black and Hispanic patients in the management of COVID-19[4,5]

The following case studies and results illustrate how health systems worked through a pragmatic needs assessment and implemented targeted interventions

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Identified Opportunities for Intervention [4,5]

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

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Abbreviations: CDC, Centers for Disease Control and Prevention; FDA, US Food and Drug Administration.

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Provider and Patient Survey Insights [4]

109 provider and 467 patient surveys were completed across the 3 HCOs. Notable findings included:

Patient trust in COVID -19 medicine lower than other medicines	• Patients were up to 20% more likely to not trust or to feel unsure about trusting COVID-19 medicine prescribed by their provider
Delayed testing & care -seeking for COVID-19 among patients	• 10%-26% of patient respondents would wait 4+ days from symptom onset to take a COVID-19 test • 21%-25% would wait 6+ days before seeking care
Race/ethnicity perceived to negatively impact quality of care by patients	• 27%-30% of historically marginalized patients felt their race/ethnicity negatively impacted the quality of their care
Providers confident engaging with diverse patients but don't engage with colleagues on equity	• Providers reported high confidence engaging with treatment - and vaccine-hesitant patients • Providers utilize strategies to reduce bias in communication (80%+) however, fewer than 50% reported speaking with coworkers about bias

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Summary Multilevel Interventions Implemented [4]

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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

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Summary Outcome Measures

HCOs reviewed EHR data for over 1.8 million patients between 2022 -2024 to assess changes in outcomes using a standard measures specification. [4,5] Over the project period:

Prescription for COVID-19 Medicine

- All sites observed increases in prescribing over time[4]
- At baseline, all sites had lower prescribing rates for Asian, Black, and Hispanic patients compared with White non-Hispanic patients[5]
- Site A reduced disparity between Black and White patients ($P<0.05$)[1,4]

Fills for COVID-19 Medicine

- Only available for Site C[1]
- 3%-9% lower fill rates over time for Black, Asian, and Hispanic patients compared with White non-Hispanic patients[5]
- Overall fill rates doubled for all sites post implementation period (treatment fills increased from approximately 18%-24% to 48%-54%)[1]

COVID-19 Vaccines

- Balance measure given project focus on outpatient COVID-19 management for project[4]
- All sites observed increases over time, with persistent disparities over time[4]

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Site A Case Study: COVID-19 Management[1,18]

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Population Identification

- Initial focus from EHR data review was Black/Brown patients within 2 regions

Conduct a Needs Assessment

- Patient feedback indicated high levels of misinformation among Hispanic patients
- Clinician feedback indicated concerns on viral rebound
- Health equity efforts within the HCO included collaboration with leadership and integration of COVID-19 health equity into strategic plan
- Health equity partners outside HCO were robust and actively engaged

Plan Intervention Rollout

- Engagement from marketing, IT, school system, primary and urgent care providers, and leadership
- COVID-19 health equity built into organization strategic plan
- Intervention 1: Kiosks in community to address SDoH and provide COVID-19 education passively
- Intervention 2: Cultural competency training for all staff
- Intervention 3: Sharing EHR data and patient survey data with providers

Implementation & Sustainability

- Set standard time points to check in on utilization
- Systematically gather feedback on interventions from patients and clinicians
- Iteratively refine interventions based on feedback
- Review EHR data for impact on patient outcomes
- Consider opportunities to build upon interventions

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Site B Case Study: COVID-19 Management[1,18]

Population Identification	• From EHR data focusing on Hispanic patients within targeted region
Conduct a Needs Assessment	• Patient feedback indicated lengthy delays in seeking care when testing positive for COVID-19 • Clinician feedback indicated concerns on viral rebound and no standards for prescribing • Health equity partners within HCO were focused on quality department as DEI office closed during project • Health equity partners outside HCO not initially well connected
Plan Intervention Rollout	• Intervention 1: Updating website to reference treatment for COVID-19 • Intervention 2: Develop and implement smartphrases for acute COVID-19 • Intervention 3: Establish partnership with community partner for broader engagement from targeted population
Implementation & Sustainability	• Set standard time points to check in on utilization • Systematically gather feedback on interventions from smartphrase users • Iteratively refine interventions based on feedback • Review EHR data for impact on patient outcomes • Consider opportunities to build upon interventions

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Site C Case Study: COVID-19 Management[1,3-5,18]

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Population Identification

- From EHR data focusing on Black and Hispanic patients within 7 sites that care for a high proportion of historically marginalized patients

Conduct a Needs Assessment

- Patient feedback indicated delays in care seeking
- Clinician feedback indicated concerns on viral rebound
- Health equity partners within HCO included leadership and health equity researchers
- Health equity partners outside HCO were newly established and included state agencies

Plan Intervention Rollout

- Organizational barriers slowed progress including internal regulatory review timeline, major staffing changes to support staff, and previously identified clinical champions
- Intervention 1: Passive patient and clinician education in waiting rooms of primary care
- Intervention 2: Initiate development of patient advocacy guide

Implementation & Sustainability

- Aiming to implement EHR workflow change to standardly provide treatment, particularly to high-risk patients
- Systematically gather feedback on interventions from patients and clinicians through qualitative and quantitative methods

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Site A: Provider Education Cultural Competency

Cultural Humanity	Communication Strategies	Challenges and Solutions	Cultural Competency Basics	Atlanticare Initiatives
1 POINT	1 POINT	1 POINT	1 POINT	1 POINT
2 POINTS	2 POINTS	2 POINTS	2 POINTS	2 POINTS
3 POINTS	3 POINTS	3 POINTS	3 POINTS	3 POINTS
5 POINTS	5 POINTS	5 POINTS	5 POINTS	5 POINTS
10 POINTS	10 POINTS	10 POINTS	10 POINTS	10 POINTS

Access available upon request, please contact research@amga.org.

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Site A: Provider Education Cultural Competency

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Site B: Smartphrases COVID-19 Treatment

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covid19athomepositive

PATIENT has reported a positive COVID-19 result from an at-home test. Based on this, they are advised to follow the current guidelines for returning to work and/or school.

covid19positivemychart

This is *STAFF NAME* from Site B.
We are writing to inform you that your COVID-19 test came back POSITIVE (detected). Here's what you need to know:

covid19resultspositive

PATIENT was called regarding positive COVID-19 test.

Current Guidelines:

Stay home and away from others.

You can go back to your normal activities when, for at least **24 hours both are true:**

- Your symptoms are better overall, **and**
- You have not had a fever (and are not using fever-reducing medication such as Tylenol or Advil)

When you go back to your normal activities, take added precautions over the next 5 days, such as taking additional steps for cleaner air, hygiene, masks, physical distancing, and/or testing when you will be around other people indoors.

If you tested positive but have not developed symptoms, take added precautions over the next 5 days, such as taking additional steps for cleaner air, hygiene, masks, physical distancing, and/or testing when you will be around other people indoors.

If you develop a fever or you start to feel worse after you have gone back to normal activities, stay home and away from others again until, for at least 24 hours, both are true: your symptoms are improving overall, and you have not had a fever (and are not using fever-reducing medication such as Tylenol or Advil). Then take added precaution for the next 5 days.

Treatments:
Depending on your risk factors, you may be eligible to receive treatment to help prevent worsening of your symptoms. These medications are **time-sensitive** based on when your symptoms started. If you think you may qualify or would like to discuss treatment, **don't delay.** Please reach out as soon as possible to your primary care provider or call our nurse triage at (INSERT PHONE NUMBER) if you do not have a primary care provider.

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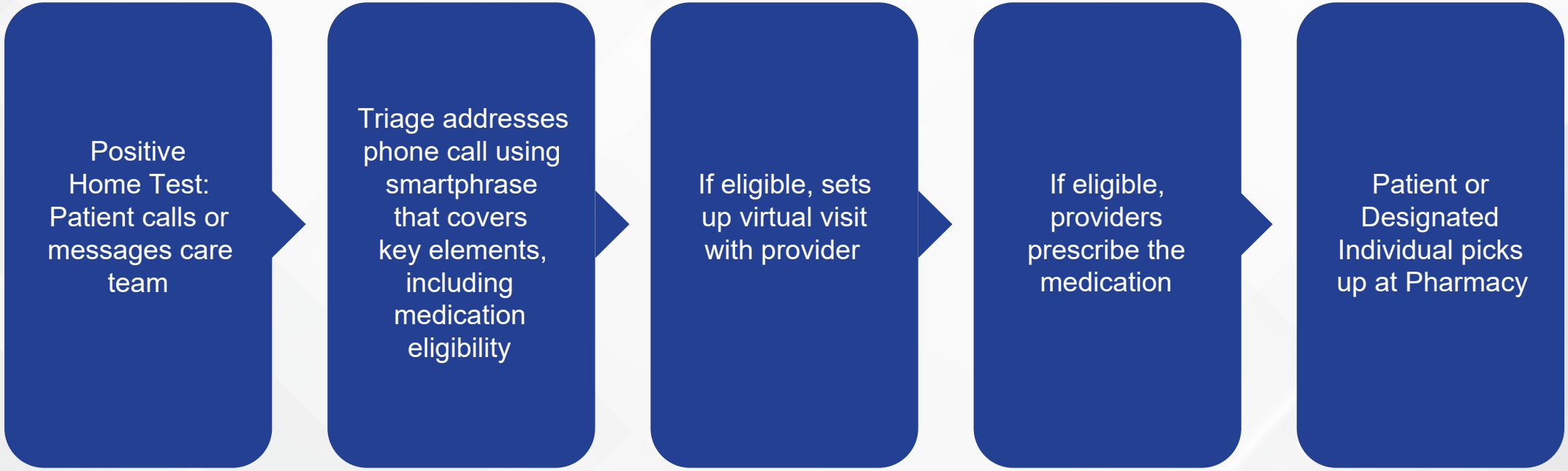
Site B: COVID-19 Treatment Smartphrase Workflow



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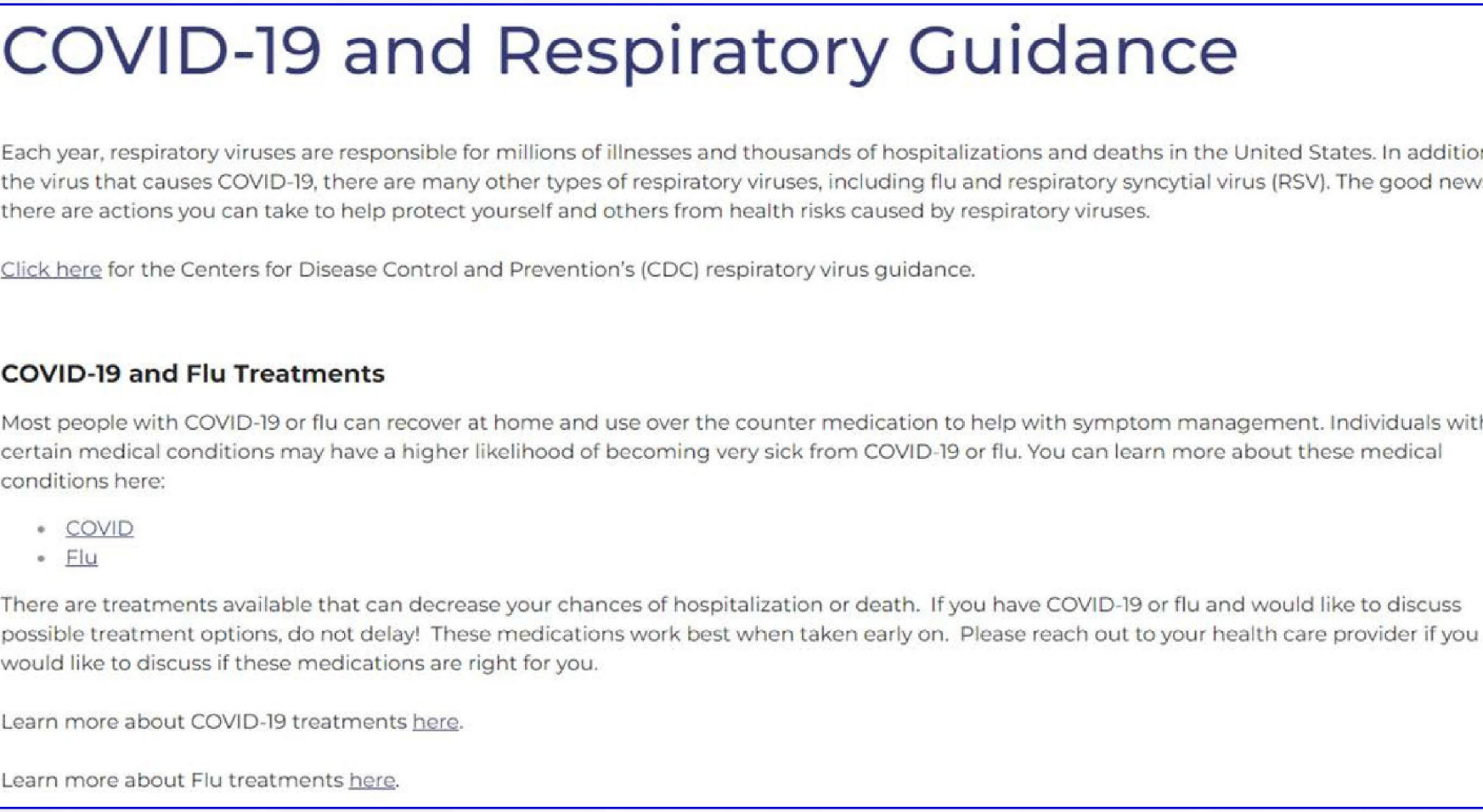
Site B: Website Update



COVID-19 and Respiratory Guidance

Each year, respiratory viruses are responsible for millions of illnesses and thousands of hospitalizations and deaths in the United States. In addition to the virus that causes COVID-19, there are many other types of respiratory viruses, including flu and respiratory syncytial virus (RSV). The good news is there are actions you can take to help protect yourself and others from health risks caused by respiratory viruses.

Click here for the Centers for Disease Control and Prevention's (CDC) respiratory virus guidance.

COVID-19 and Flu Treatments

Most people with COVID-19 or flu can recover at home and use over the counter medication to help with symptom management. Individuals with certain medical conditions may have a higher likelihood of becoming very sick from COVID-19 or flu. You can learn more about these medical conditions here:

- COVID
- Flu

There are treatments available that can decrease your chances of hospitalization or death. If you have COVID-19 or flu and would like to discuss possible treatment options, do not delay! These medications work best when taken early on. Please reach out to your health care provider if you would like to discuss if these medications are right for you.

Learn more about COVID-19 treatments here.

Learn more about Flu treatments here.

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Site C: PatientAdvocacy

How to Be Well-Prepared for Your Appointments

Understanding the Risk for Severe COVID-19 Infections

Patients with chronic conditions such as hypertension, diabetes, or asthma are at greater risk of severe outcomes if they have COVID-19. Early at-home COVID-19 treatment after a known exposure can reduce complications and improve outcomes.

Having a communication plan, preparation and self-advocacy with your care team might improve your care.

Consider these tips:

1. **Write It Down**
   - Prepare a list of your thoughts, concerns, and questions ahead of time
2. **Build a Support System**
   - Bring along a trusted friend or family member for support and confidence
3. **Prioritize Your Concerns**
   - Identify the most important issues to discuss with your healthcare provider
4. **Ask for Clarification**
   - Speak up if something is unclear or confusing during your appointment
5. **Do Your Research**
   - Learn about your condition, symptoms, and medications beforehand
6. **Ask Direct Questions**
   - Be clear and specific about what you need to know or understand
7. **Follow-Up**
   - Schedule follow-ups or seek a second opinion if you need further clarification

Why Bring a Trusted Friend or Relative?

- They can help recall details of your discussion with the healthcare provider
- Their presence may give you confidence to speak up
- Strengthens your overall support system

Stay Proactive About Your Health

- Taking these steps empowers you to manage your chronic condition and ensure the best possible care

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Site C: Qualitative Interview Topics

Clinician

- Current practices in deciding for whom to recommend treatment
- Insights into why Black/Hispanic patients are less likely to receive treatment
- Patient awareness of and access to treatment options
- Patient concerns regarding new treatments
- Shared decision-making
- How to improve access to care and workflows for Black/ Hispanic patients

Patient

- Process if symptomatic for COVID-19 (eg, care seeking, testing, symptom knowledge)
- Knowledge, attitudes, and concerns towards treatment
- Decision-making in healthcare (eg, prioritization, starting new medication vs holistic, pressure from doctors, priorities)
- Provider communication (eg, comfort sharing concerns, feeling heard)
- Mistrust and discrimination (eg, trust and mistrust, diversity of providers, impact of racism on health)

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Site C: Provider & Patient Education

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If you feel sick and have COVID-19, act quickly to seek evaluation for COVID-19 medication. **They must be taken within the first 5–7days of symptoms to work.**

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Considering Multilevel Interventions [2]

- Using a framework to guide health system approaches to health equity interventions can ensure interventions are comprehensive and address both health system and other level factors[2]
- Similar to having a strategic plan, a framework can help guide the vision for health equity interventions

National Institute on Minority Health and Health Disparities Research Framework

		Levels of Influence*			
		Individual	**Interpersonal**	**Community**	**Societal**
Domains of Influence *(Over the Lifecourse)*	**Biological**	Biological Vulnerability and Mechanisms	Caregiver–Child Interaction Family Microbiome	Community Illness Exposure Herd Immunity	Sanitation Immunization Pathogen Exposure
	Behavioral	Health Behaviors Coping Strategies	Family Functioning School/Work Functioning	Community Functioning	Policies and Laws
	Physical/Built Environment	Personal Environment	Household Environment School/Work Environment	Community Environment Community Resources	Societal Structure
	Sociocultural Environment	Sociodemographics Limited English Cultural Identity Response to Discrimination	Social Networks Family/Peer Norms Interpersonal Discrimination	Community Norms Local Structural Discrimination	Social Norms Societal Structural Discrimination
	Health Care System	Insurance Coverage Health Literacy Treatment Preferences	Patient–Clinician Relationship Medical Decision-Making	Availability of Services Safety Net Services	Quality of Care Health Care Policies
Health Outcomes		**Individual Health**	**Family/ Organizational Health**	**Community Health**	**Population Health**

National Institute on Minority Health and Health Disparities, 2018
*Health Disparity Populations: Race/Ethnicity, Low SES, Rural, Sexual and Gender Minority
Other Fundamental Characteristics: Sex and Gender, Disability, Geographic Region

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References

1. Data on file. Pfizer Inc; 2025.
2. National Institute on Minority Health and Health Disparities. NIMHD research framework details. Updated January 11, 2024. Accessed November 14, 2025. https://www.nimhd.nih.gov/resources/research-framework/nimhd-research-framework-details
3. Ruvalcaba E, Rooney A, Ciemins EL. Closing the gap. COVID-19 management: health equity challenges and planning solutions. *Group Practice Journal*. November/December 2023. Accessed November 14, 2025. https://www.amga.org/getmedia/15383e8d-1878-446f-a684-6cacddd60da7/ruvalcaba1.pdf
4. Ruvalcaba E, Tallam M, Ciemins E. Health system strategies for advancing equity and reducing disparities: COVID-19 treatment and management. Poster presented at: AMGA Annual Conference; March 26-29, 2025; Grapevine TX.
5. Ruvalcaba E, Tallam M, Ciemins E. Health equity: a pragmatic needs assessment by health care organizations to address inequity in COVID-19 management. Poster presented at: 17th Annual Conference on the Science of Dissemination and Implementation; December 8-11, 2024; Arlington VA.
6. Health care access and utilization. All of Us Research Program, National Institute of Health. Accessed November 14, 2025. https://databrowser.researchallofus.org/assets/surveys/Health_Care_Access_Utilization.pdf
7. 2023 National Health Interview Survey (NHIS) questionnaire. Centers for Disease Control and Prevention, National Center for Health Statistics. Accessed November 14, 2025. https://nhis.ipums.org/nhis/resources/surveys_pdf/survey_form_ih2023_sa_sc.pdf
8. Alsaleh FM, Elzain M, Alsairafi ZK, Naser AY. Perceived knowledge, attitude, and practices (KAP) and fear toward COVID-19 among patients with diabetes attending primary healthcare centers in Kuwait. *Int J Environ Res Public Health* 2023;20(3):2369. doi:10.3390/ijerph20032369
9. Bogart LM, Ojikutu BO, Tyagi K, et al. COVID-19 related medical mistrust, health impacts, and potential vaccine hesitancy among Black Americans living with HIV. *J Acquir Immune Defic Syndr*. 2021;86(2):200-207. doi:10.1097/QAI.0000000000002570
10. Peek ME, Nunez-Smith M, Drum M, Lewis TT. Adapting the everyday discrimination scale to medical settings: reliability and validity testing in a sample of African American patients. *Ethn Dis*. 2011;21(4):502-509.
11. California Health Interview Survey: CHIS 2017 Adult Questionnaire (version 2.20). UCLA Center for Health Policy Research; 2019.
12. White K, Clayton R, Arndt S. *Culturally Competent Substance Abuse Treatment Project: Annual Report, July 1, 2008-June 30, 2009*. Consortium for Substance Abuse Research and Evaluation. Accessed November 14, 2025. https://icsa.uiowa.edu/sites/icsa.uiowa.edu/files/projects/Culturally%20Competent%20Substance%20Abuse%20Treatment%20Project%20-%20Evaluation%20Report%202009.pdf
13. Fernandes A, Wang D, Domachowske JB, Suryadevara M. Vaccine knowledge, attitudes, and recommendation practices among health care providers in New York State. *Hum Vaccin Immunother*. 2023;19(1):2173914. doi:10.1080/21645515.2023.2173914
14. Bower KM, Kramer B, Warren N, et al. Development of an instrument to measure awareness and mitigation of bias in maternal healthcare. *Am J Obstet Gynecol MFM*. 2023;5(4):100872. doi:10.1016/j.ajogmf.2023.100872
15. Ho MK. Use of ethnic-sensitive inventory (ESI) to enhance practitioner skills with minorities. *J Multicult Soc Work*. 1990;1(1):57-68. doi:10.1300/J285v01n01_05
16. The Connecticut Department of Mental Health and Addiction Services Office of Multicultural Affairs. *Assessment Guidelines for Developing a Multiculturally Competent Service System for an Organization or Program*. Published January 2000. Accessed November 14, 2025. https://portal.ct.gov/-/media/DMHAS/OMA/guidelinespdf.pdf
17. Bhatt J, Wilkins D, Nelson H, Keita M, Chang C, Malhotra R. Health equity remains a business imperative in the life sciences and health care industries. Deloitte Center for Health Solutions. Published January 28, 2025. Accessed November 14, 2025. https://www.deloitte.com/us/en/insights/industry/health-care/health-equity-business-imperative-in-2025.html
18. Data on file. AMGA.

APPENDIX

Considering Multilevel Interventions [15]

References

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