

## The Connections Between COVID and Diabetes

People who had COVID are 40% More Likely to Develop Diabetes, According to New Study, And People with Diabetes Are Also More Likely to Develop Severe COVID and Long COVID

By Laszlo Madaras, MD, MPH, Chief Medical Officer, Migrant Clinicians Network

ver the last two and a half years, as thousands of COVID patients cycled through the rural hospital where I work in Pennsylvania, I have noticed a concerning trend. When I see young, seemingly healthy patients with no comorbidities, who are very ill with COVID, I check their A1C and I have often found it to be very high. These patients had uncontrolled diabetes but were undiagnosed. Over a dozen patients fit this description; most of those patients were Latinx. Such anecdotes tell us nothing concrete about the connection between diabetes and severity of COVID. New research, however, is beginning to show the complex and bidirectional relationship between diabetes and COVID. While more studies need to be conducted to better understand the mechanisms driving these connections, data confirm that those with diabetes have a greater risk of severe acute COVID as well as long COVID. Additionally, and startlingly, those who had acute COVID have a higher likelihood of a new type 2 diabetes diagnosis in the months following infection.

**From COVID to Diabetes:** One study in *The Lancet Diabetes & Endocrinology* found that of the 180,000 people seen through the Veterans Administration's health care system, people who had COVID were about 40% more likely to develop diabetes, up to a year later, than those who didn't have COVID. 1 Even a mild case of acute COVID increases a person's chance of developing diabetes, but the diabetes risk grew with increasing

COVID severity. The authors used the same database review process earlier in the year to uncover the increased risk of heart disease after COVID.<sup>2</sup> Diabetes could be defined as an aspect of long COVID, but without a uniform definition of long COVID, it's hard to make that distinction concretely. Some people who develop diabetes after acute COVID have no other long COVID symptoms, but that doesn't mean they do not have long COVID. The inflammatory processes that go on in the aftermath of an acute infection might be precipitating diabetes in some patients - we are just not sure yet. In one article, the authors found that COVID may be causing damage to the pancreas, which



ealth inequities are rampant in the United States. Black women are more likely to die from giving birth than other women, even when other factors like income and education are accounted for.1 Migrant agricultural workers move every few weeks for the harvest, often crossing state lines; if eliqible for health care, they must reapply in every new state, an almost impossible bureaucratic burden. A person diagnosed with diabetes who is told to eat fresh vegetables and get more exercise, may live in a community unsafe for exercising outside, and only have a convenience store for food. From rates of morbidity and mortality, to access to quality health care, to services in one's preferred language, to the social determinants that remain unaddressed, most health systems generate or perpetuate racial, social, economic, and/or health inequities that negatively impact the health and well-being of underserved and historically marginalized people, including agricultural workers. The efforts to shift health systems to be more equitable, however, often fail to include the communities that those systems serve. Community participation, posit the authors of a new conceptual model, is key to such efforts. To meaningfully build health equity, systems of health must be transformed through efforts that center firmly around community, and community engagement.

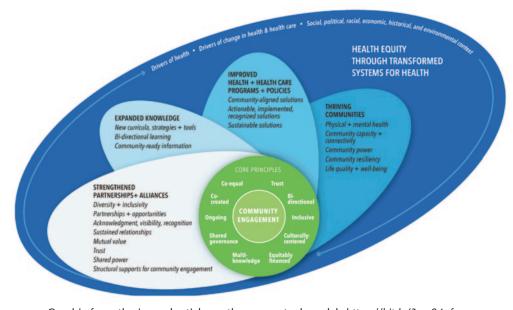
Achieving Health Equity and Systems Transformation through Meaningful Community Engagement, also known as the Assessing Community Engagement (ACE) Conceptual Model, encourages community efforts to focus on four "petals" or "propellers" of measurable outcomes that grow out of community engagement: strengthened partnerships and alliances, expanded knowledge, improved health and health care programs and policies, and thriving communities.<sup>2</sup> A community can utilize the outlined domains and indicators related to each petal to encourage meaningful engagement on their health equity goal, say the authors. A commentary introducing the model was published in February 2022 in NAM Perspectives, from

the National Academy of Medicine.

The authors sought to build an efficient and useful model that would:

- Define what should be measured in meaningful community engagement, not what is currently measured;
- Be sufficiently flexible to measure engagement in any community;
- Define health holistically;
- Allow the community to see itself in or identify with the language, definitions, and context;

continued on next page



Graphic from the journal article on the conceptual model: https://bit.ly/3ms84uf.

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- Embed equity throughout the model;
- Emphasize outcomes of meaningful community engagement;
- Present a range of outcome options for various stakeholders; and
- Communicate the dynamic and transformative nature of engagement.

The authors found that existing conceptual models lacked flexibility for various community partners and sectors, and the norms, needs, and processes that those partners bring. Few made the connection between community engagement and outcomes or metrics, and none examined how community engagement could impact health care policies, particularly with the incorporation of diversity, inclusion, and health equity, the authors concluded. This model, with community engagement at the center, allows for meaningful, lasting, and connected community health interventions and policies.

The model reflects the community-centered ethos that many health equity-focused groups like Migrant Clinicians Network have relied on and advocated for, for decades.

"The community mobilization model, the participatory research and evaluation approach that MCN utilizes – it is all encompassed in this conceptual model," noted Alma Galván, MHC, Senior Program Manager with MCN, who celebrated the model, and noted it was developed by well-respected leaders in the field.

The model validates and elevates the approach that MCN has relied on, and emphasizes to funders the need for longterm support of the infrastructure and relationship-building that such a model relies on. When COVID hit, Galván noted, many community-based organizations were eligible for significant new avenues of funding around COVID - but as the pandemic wears on, funding has evaporated. Yet, relationships forged in this emergency should be maintained. Healthy mutual relationships between organizations and their communities can support the health of the most marginalized, either during the next infectious disease emergency, or to address chronic ongoing health concerns like diabetes. For overlooked communities like migrant agricultural worker communities, such relationships are essential.

"To build health equity, it's not just about the health challenges agricultural workers have as individuals, but about the structural challenges in this country, the laws that do not help them, that keep them from having access to services, and to health information," Galván said. "It is not an easy solution – and it takes time. But to move the needle on the structural challenges that they have – like immigration status, health system access – you need to go through the process to build the trust."

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Programs & Policies. 2022. Assessing Meaningful Community Engagement: A Conceptual Model to Advance Health Equity through Transformed Systems for Health. NAM Perspectives. Commentary, National Academy of Medicine, Washington, DC. https://doi.org/10.31478/202202c.

## Participatory Evaluation: Where Analysis Meets Equity

By Claire Hutkins Seda, Associate Director of Communications, Migrant Clinicians Network

Often, when an organization receives funding for a community health project, it develops the framework to assess impact with the needs and goals of the funder in mind – or the funder itself may provide the metrics it requires. How many people will be reached? What percentage of people will rate the resources highly? How did the project impact participant's knowledge, attitude, and behavior? These metrics may align with what the organization and their target audience need – or not. It is hard to know when the community or the organization is not brought into the process of evaluation in a collaborative way.

Migrant Clinicians Network has joined several projects to lend our expertise in building and executing community-centered evaluation, with the goal of increasing engagement with local communities to ensure that projects meet community members' own goals and metrics.

In a new project with Futures Without Violence, Alianza Nacional de Campesinas, and Lideres Campesinas, for example, Community Health Workers (CHWs) will build on their knowledge of Adverse Childhood Experiences (ACEs) and receive training to educate their agricultural worker neighbors and peers about ACEs. MCN is spearheading the community evaluation component of this project and is working hand and hand with our partners to develop a participatory approach to evaluation. One of the key metrics for the CHWs is looking at their own empowerment regarding education of others and measuring their self-efficacy along with the knowledge gain. This project will also involve a pilot with a community health center in California where Medi-Cal has added ACEs screening as a reimbursable item. This will foster more clinicians to have important conversations with their patients about ACEs and their long-term effects on health.

"Our expertise is in understanding both the farmworker community needs and the work that Community Health Workers do – and recognizing the challenges in evaluation," said Amy K. Liebman, MPA, MCN's Chief Program Officer of Workers, Environment, and Climate, who oversees this project. "We also have a diverse and largely bilingual team with backgrounds in psychology, health promotion, evaluation, and worker health and safety."

Keep up to date with MCN's new projects and access the resources developed from the projects on our active blog: www.migrantclinician.org/blog.



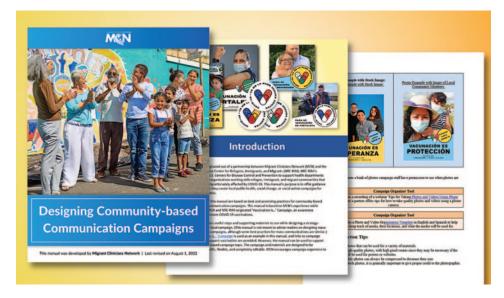
# Designing Community-Based, Hyper-Local Communication Campaigns to Improve Health

By Noel Dufrene, Communications Program Manager, Migrant Clinicians Network

cross the US, rural, hard-to-reach agricultural worker communities have been severely impacted by the COVID-19 pandemic. Many of these communities differ from each other in important ways, from language, to culture, to age range, to access and integration with the larger community around them. Some agricultural worker communities are new immigrants; others have lived in the US for decades. Some are migrating with their families, and others are alone. Mass public health campaigns failed to successfully reach many of these communities which was one factor that increased COVID-related hardships. The pandemic exposed the critical need for hyper-local public health campaigns. "Hyper-local" is used to describe a small community that a campaign organizer wishes to reach that has a clearly defined geographic location and may also have its own distinct culture, norms, values, language, possibly language dialect, education level, and even employment type. Hyper-local communities are distinct from the target audiences of mass-communication campaigns, and even community-wide campaigns, because these campaigns often do not take into account the specific language, culture, environment, concerns, and misinformation that is circulating within these smaller communities. Campaigns that are designed for hyper-local communities can be more tailored, and therefore, connect better with target audiences.

The need for involvement of Community Health Workers, and other trusted health champions, and the knowledge and skills they bring, has been proven critical to successfully bring health messages to hard-to-reach communities. However, the task of feasibly implementing hyper-local campaigns can still be daunting, especially for health departments or health centers that are not already deeply connected with the local target audience, or for Community Health Workers who are new to the field.

Migrant Clinicians Network (MCN) is excited to offer a new resource, Designing Community-Based Communication Campaigns, a manual which offers detailed guidance to readers as they design public health, social change, or social action campaigns for hyper-local communities. The manual, which originated out of a partnership between MCN and the National Resource Center for Refugees, Immigrants, and Migrants (NRC-RIM), is based on best



and promising practices for strategyinformed community-based public health campaigns. It also draws from MCN's experience while executing the MCNand NRC-RIM-originated 'Vaccination Is...' Campaign, an awareness campaign to promote COVID-19 vaccinations on the Eastern Shore of Virginia, Maryland, and Delaware, which sought to engage Spanishand Haitian Creole-speaking vulnerable and primarily agricultural worker populations. The manual encourages the involvement of community members in the campaigndesign process and offers useful steps to ensure campaign messages are relevant, and strategies meet the needs of the unique communities that organizers wish to reach. The manual also offers supporting materials from MCN's free and fully customizable 'Vaccination Is...' campaign, which can be used for purposes beyond COVID-19.

The manual includes a wealth of information including:

- Community resource mapping
- Evaluating and selecting communication strategies and materials
- Photo and video consent and collection
- How to build and use a needs assessment
- Establishing campaign objectives and goals
- Choosing communication channels
- Building campaign tactics, strategy, and partnerships
- Campaign implementation strategies
- Evaluation, data collection, and reporting on the campaign

The new resource is a representation of

MCN's efforts to make health accessible to all and to enable health departments and community health centers to have an accessible resource to refer to during the seemingly complicated process of designing relevant hyper-local campaigns for communities that are often left out. The manual encourages campaign organizers to edit campaign strategies and materials to the specific needs of their own target communities. MCN hopes that the manual can help health advocates serving communities -- particularly those serving agricultural workers and other underserved and hard-to-reach communities -- to create successful and relevant campaigns. In addition to meaningfully impacting the health of our local communities, the effort hopes to expand health equity throughout the US and beyond by empowering health providers to craft and deliver relevant health messages to their communities.

MCN's new manual, Designing Community-Based Communication Campaigns, is designed for both online-only use and for printing, with an extensive printable appendix of templates and resources, as well as embedded hyperlinks to online versions of the resources. It is now available at: https://www.migrantclinician.org/ resource/designing-community-based-communication-campaigns-manual.html. A Spanishlanguage version of the manual will be available in the fall. Bilingual readers are encouraged to subscribe to our Spanish-language blog and e-newsletter to hear when new Spanish-language MCN resources and articles including the manual are released. Visit the Spanish-language blog here: https://www.migrantclinician.org/es/blog.

#### ■ The Connections Between COVID and Diabetes continued from page 1

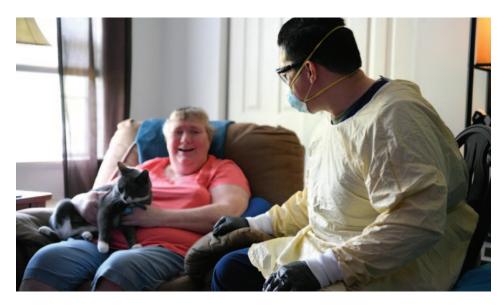
could worsen hyperglycemia and perhaps be responsible for the increased number of diabetes cases after COVID.3 Those inflammatory processes and organ damage could be the instigators of the wide range of symptoms we are calling long COVID. Those with prediabetes or diabetes who have severe COVID and are hospitalized are commonly administered dexamethasone (also known as its brand name, Decadron). However, dexamethasone temporarily increases glucose levels. Due to limited data, it is unclear what the effect dexamethasone may have on glucose levels in the longer term. More research is needed to determine whether the temporary increase in glucose levels may trigger some people who have pre-diabetes to develop diabetes. Despite the lack of understanding of the mechanisms, it is clear that after a case of COVID, a person is at greater risk of diabetes.

From Diabetes to COVID: Diabetes is one of the most frequent comorbidities in people with COVID-19, with a prevalence somewhere around seven to 30%.4 People with diabetes who contract COVID are more likely to be hospitalized for COVID, more likely to have severe pneumonia, and are more likely to die of COVID. For patients with diabetes, it is more important than ever that they maintain control over their diabetes, to reduce the risk of a severe or deadly case of COVID.

From Diabetes to Long COVID: A new study that was presented at the American Diabetes Association's conference in June 2022 found that individuals with diabetes are up to four times more likely to develop long COVID.5 The study found that 43% of peer-reviewed studies that reported on long COVID and diabetes identified diabetes as a risk factor of long COVID. The limitations of the study were significant in the face of a lack of a uniform definition of long COVID, and more studies need to be completed with consistent definitions to confirm the findings. Nonetheless, these initial findings are concerning, particularly for an agricultural worker population.

The agricultural worker community may already have a higher burden of diabetes than the general population, although firm data are lacking.<sup>6,7</sup> Numerous compounding factors like migration, rural locations and food deserts, lack of transportation, poverty, lack of health insurance, poor access to health care, and more reduce agricultural workers' ability to get a diagnosis and maintain a care plan for diabetes, including an insulin regimen, regular exercise, and a balanced diabetes-appropriate diet. Consequently, it's even more critical that this

community is informed about the risks relat-

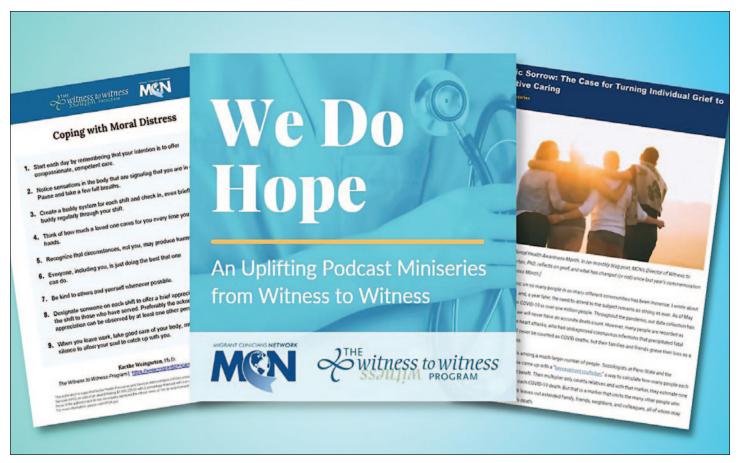


ed to diabetes and COVID. Health care providers, Community Health Workers, outreach workers, and others working directly with the agricultural worker communities should inform people who have gotten COVID about their increased risk, as well as the signs and symptoms of diabetes. "Careful monitoring of glucose levels in at-risk individuals may help to mitigate excess risk and reduce the burden of lingering symptoms that inhibit their overall wellbeing," said Jessica Harding, PhD, the lead author on the study linking diabetes and long COVID. Those already diagnosed with diabetes should be informed of their increased risk of severe COVID and long COVID.

The best way to avoid a COVID infection precipitating diabetes, or a diabetes comorbidity increasing severity of a COVID infection, is to not get COVID in the first place. There are certain aspects of the pandemic which are out of our control. Among agricultural workers, many must go to work and cannot work from home or change careers. With many obstacles in their way, they may struggle to keep their diabetes under control as they move for work, cannot get care, and live with very little. However, there is something concrete that everyone can do to reduce their risk of severe COVID: get vaccinated and stay up to date on boosters. If an agricultural worker, or anyone else, gets vaccinated and then gets COVID, that person is less likely to have a severe bout of COVID, compared to if the person is unvaccinated. There is also a correlation between severity of symptoms during acute COVID and severity of long COVID. Additionally, research is now indicating that getting vaccinated after a COVID infection may reduce the severity of long COVID.8 Some of this is still in our power. Make sure patients know that their best option is to get vaccinated.

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## **Witness to Witness:**

## **New Resources to Meet Clinicians in This Moment**

By Pamela Secada, MPH, Witness to Witness Program Manager

itness to Witness (W2W) is a program of Migrant Clinicians Network that seeks to build resilience both individually and organizationally for those working with historically marginalized populations. Throughout the pandemic, health care providers have suffered from primary and secondary trauma, stress, empathic stress, moral distress, and moral injury. To support clinicians on the frontlines, W2W provides a range of services, the primary component being online seminars. The online seminars are unique in that participation is encouraged during the presentation. During these seminars, the Zoom chat feature is used to form community and allow participants to share their experiences. W2W peer support groups and learning collaboratives for managers offer participants the same opportunity as the online seminars but in a much more intimate setting. These groups are designed to help health care workers feel less alone and share their unique experiences and challenges with one another. Two and half years into the pandemic, health care workers continue to face challenges that

make it difficult to find time to care of themselves; therefore, W2W has created additional support resources that are short but impactful:

**Reasonable Hope:** In our six-episode podcast, W2W program staff discuss moral injury, chronic sorrow, micro-aggressions, self-compassion, and the practice of reasonable hope. All six episodes of Reasonable Hope are now available on most podcast platforms, including Spotify, Apple, and Google.

**Monthly blog post:** Once a month, W2W Founder and Director Kaethe Weingarten, PhD, provides perspective and resources on common concerns that clinicians are experiencing, particularly throughout the pandemic. Recent posts include:

- Chronic Sorrow: The Case for Turning Individual Grief into Collective Caring: https://bit.ly/3aJiy5w
- When A Helper Needs Help: Caring for Health Care Workers during COVID: https://bit.ly/307cpPi
- I'm in a Rut. What Can I Do about It? https://bit.ly/3H9rnls

**New Resources:** Dr. Weingarten and her team also generate new resources regularly. Most are available for download in English and Spanish. Recent additions include:

- Anger Amidst the Care: Tips for Clinicians on Dealing with Anger: https://bit.ly/3NFBAbE
- Coping with Moral Distress: https://bit.ly/3H9I41e
- Microaggressions and Relational Harms in the Workplace: https://bit.ly/3MxxRvn

**Online Seminars/Webinars:** Some recent online seminars are archived on the MCN website, including:

- Coping With Overexposure to Trauma: https://bit.ly/3aLrkQv
- Tough Times: Easy Tools to Help You Cope: https://bit.ly/397gzHS

Visit the Witness to Witness webpage for numerous resources in English and Spanish, to sign up for Dr. Weingarten's bimonthly newsletter, and to keep up to date on upcoming trainings: https://www.migrantclinician.org/our-work-building-health-provider-capacity/witness-witness-w2w.html



## Reactions to Current Events: The Witness to Witness Perspective

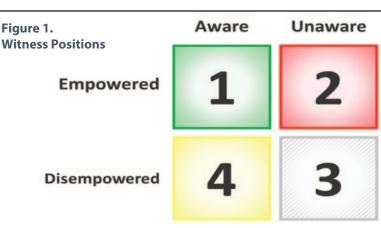
hile we are all familiar with the terms "victim" and "perpetrator," far fewer of us use the term "witness" to apply to all the myriad situations in which that term is most apt. Far and away, the majority of acts of violence and violation any disturbing interaction or event – is experienced by people in the witness position. In recent years, health care providers have been witnesses to unprecedented outbursts of rage in their workplaces: family members who are angry that they cannot say goodbye to loved ones as they die in isolation; community members who disagree with public health efforts like vaccination campaigns; frustrated patients who encounter longer wait times because of understaffing. Outside of the workplace, we are all witnesses to violence, from the violent murders of George Floyd and many others at the hands of police, to the heartbreaking mass shootings in Uvalde and elsewhere, occurring almost daily. These events can be viewed through a witnessing lens.

The witnessing model combines bystander theory and trauma theory, asserting that there is not just one witness position but rather four. The four witness positions are created by two dimensions: aware or not aware and empowered or disempowered. (See Figure 1). Our positions vary depending on the situations we witness. Sometimes we can cope with what we witness and sometimes we are overwhelmed. Migrant Clinicians Network's Witness to Witness is dedicated to equipping clinicians and advocates with insight and tools to help them move to Position One – empowered and aware.

You can visit Witness to Witness's webpage

to access numerous resources, including the following resources specifically written in response to recent violence.

- Violence against health care providers:
   How to Re-establish Safety when You Have
   Been Jolted into a Stress Response:
   https://bit.ly/3Nzileq
- Applying the Witnessing Model to George Floyd's Murder: https://bit.ly/3O1HAel
- Mass Shootings: From Grief and Outrage to Activism and Action: https://bit.ly/3ztq8LV





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#### calendar

#### **Community Health Institute (CHI) & Expo**

August 28-30 Chicago, IL https://www.nachc.org/conferences/chi/

## Managing Stress in Challenging Times: A Professional Development and Peer Support Program for Health Care Workers

September 8, 10am PT/12pm CT/1pm ET MCN Virtual Seminar https://www.migrantclinician.org/webinars/upcoming

#### **2022 National Latino Behavioral Health Conference**

September 15-16 Las Vegas, NV https://nlbhconference.com/

#### **20th Rural Health Clinic Conference**

September 20-21 Kansas City, MO https://www.ruralhealthweb.org/events/

## Financial, Operations Management, Technology (FOM/IT) Conference & Expo

October 30-31 Las Vegas, NV https://www.nachc.org/trainings-and-conferences/

#### **2022 National Network for Oral Health Annual Conference**

November 6-9 Nashville, TN https://www.nnoha.org/