CCTST COVID-19 Critical Community Challenge Grants (CsG)

**Concept:** While there are many significant scientific efforts directed at COVID-19 happening across the AHC, there is a lack of community-based, behavioral and surveillance research, which is desperately needed to develop effective anti-COVID-19 interventions in our city and region. In order to move forward with “re-opening” our economy while maximally protecting the health of our citizens, we must focus on COVID-related health disparities, keeping \( R_{\text{eff}} < 1 \), identifying “hot spots” in real time, implementing rapid contact tracing, ensuring that safe behaviors (physical distancing, mask wearing) are maximally followed, and systematically collecting data to understand the rate of asymptomatic carriers.

**Specific areas where research is needed:**
- Rapid diagnosis, prevention, education about COVID-19 in vulnerable populations and/or underrepresented minority groups
- Rapid “Hot spot” investigation and intervention
- Drivers of behavior/Behavioral interventions or community education
  - Example: Behavior change at the level of facilities (e.g., homeless shelters, group homes, nursing homes) afraid of being shut down
- Barriers/resistance to and interventions for prevention behaviors/treatments (mask wearing, physical distancing, early testing, isolation, handwashing, candidate vaccines)
- Methods for rapid contact tracing, especially those that are community driven
- Methods to determine the asymptomatic carrier rate or subclinical disease

**Reducing time from symptoms to isolation and quarantine is essential**

\[ \uparrow \text{Green} = \text{faster epidemic decline & faster economic recovery} \]

Time from symptoms to case isolation and contact quarantine

![Reduction time from symptoms to isolation and quarantine](https://science.sciencemag.org/content/early/2020/04/09/science.abb6936)


**Highest priority programs (will be reflected in grant scoring/awards):**
- **Contact tracing “challenge”:** Minimizing the time from symptoms to isolation and quarantine is essential to reduce spread of COVID-19. (Ferretti et al. Science). We are seeking proposals that engage staff, faculty, fellows/residents of our academic partners, community organizations, health departments, and businesses in developing and implementing context-specific interventions to reduce the time from symptoms to isolation of cases and quarantine of contacts to \(<48\) hours with a goal of \(<24\) hours. The use of advanced technology and the formation of partnerships is encouraged.
- Community engaged research—consider community health organizations, businesses/restaurants, civic organizations, Cincinnati and Hamilton County Department of Health, faith-based organizations, etc.
• Identify ways to promote social distancing and wearing masks in the most vulnerable populations as well as areas where cultural or other issues are precluding adherence to state recommendations incorporating stakeholder input
• Cross-institutional collaboration—consider formation of “tiger teams” (specialized, cross-functional teams brought together to solve or investigate a specific problem or critical issue)

Resources allocated to this RFA: $50,000 will be allocated to fund the initial awards from CCTST with potential additional contributions from UC/COM, UC Health, CCHMC and the business community.

Process:
1. Call for grants released (6/4/2020)
   a. Modular approach—plan to disburse as many as 5 grants of $10K (with additional grants as resources allow), with additional modules of $10K+ available based on progress reports due at both 30 and 60 days and available funds. Total awards will not exceed $30,000.
   b. 3 pages for background, specific aims, methods, expected outcomes and analysis (for brevity in preparation and review, excluding references)
      i. Must provide proposed modular budget
      ii. Should propose “Phase 1” and expected first outcome, but then plans for Phase 2 and beyond if initial expectations met
      iii. Important elements—great ideas, feasibility, team members/skill sets, longevity, overall impact
      iv. No limitations on eligibility—open to: 1.) any faculty or staff of UC, CCHMC, VAMC, UC Health, 2.) students/trainees, 3.) community members, and 4.) businesses
2. Deadline for submission (5 PM EDT 6/17/2020)
3. Review completed no later than 6/24/20 with awards before 6/30/2020
4. Review will be performed by the CCTST Executive Committee for Phase 1 and 2
5. All grant and progress report submissions should be made to Rachael Shepler at Rachael.shepler@cchmc.org.
6. Any queries regarding the program should be directed to either Jim Heubi (james.heubi@cchmc.org) or Brett Kissela(kisselbm@ucmail.uc.edu)

Some suggested ideas for consideration:
• Identification of modifiable barriers to prevention activities (e.g., mask wearing, physical distancing, hand washing, candidate vaccines) including cultural beliefs and resource availability, based upon stakeholder input
• Interventions to change behaviors to increase participation in universal prevention activities including mask wearing, physical distancing, early testing, and isolation to minimize COVID-19 spread
• Use of technology-based methods for contact tracing (method, implementation, barriers)
• Targeted non-technology-based contact tracing for vulnerable groups (especially Spanish speaking)
• Measurement of asymptomatic carriers and tracing (from a restaurant/bar or area like OTR or church, etc.)
• Identification of populations with high risk of non-adherence to social distancing and wearing masks
• Identification of and interventions to address to community health disparities being driven by COVID-19 e.g.: care gaps because of an inability to or reluctance to access care (health or mental health), inaccessibility of sanitation supplies, difficulty isolating/social distancing, etc.