

Health, Psychosocial and Economic Impacts of COVID-19 on people with chronic conditions

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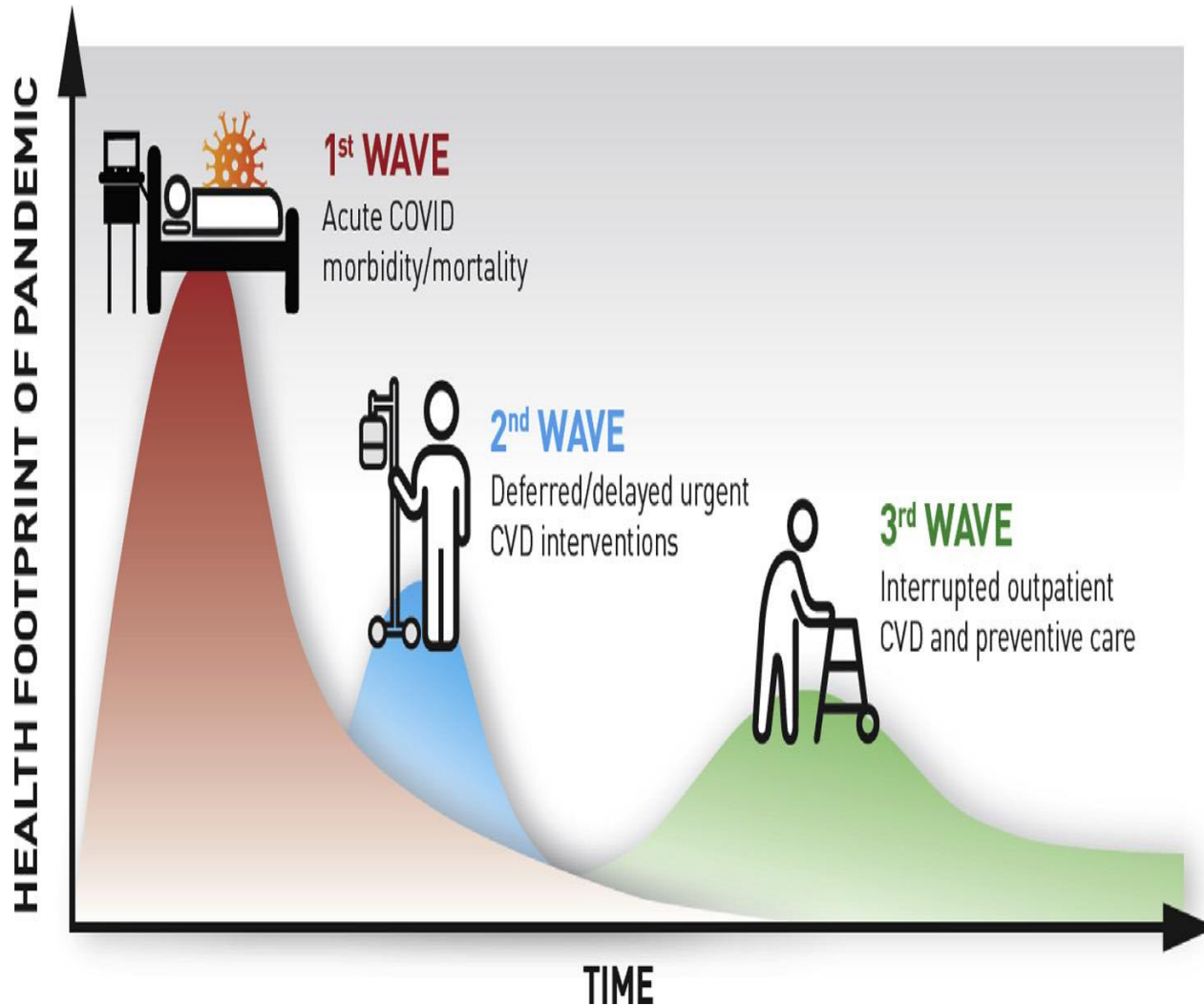
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Outline

- Impact of COVID-19 Pandemic on chronic conditions
- Changing environment for health care delivery – Digital health innovations to reduce inequality in chronic disease care
- Gaps in COVID-19 Research
- WHF COVID-19 and CVD study – Preliminary findings
- Conclusions

COVID-19 Impacts on chronic disease care



Since January 2020, COVID-19 has rapidly become a global concern and its cardiovascular manifestations have highlighted the need for *fast, sensitive and specific tools for early identification and risk stratification.*

A general practitioner from London was quoted in *The New York Times*: “*We’re basically witnessing 10 years of change in one week*”

COVID-19 Impacts on Chronic disease care



Several conditions raise concern for the welfare of patients with and at high risk for CVD during this pandemic



Traditional ambulatory care is disrupted, and many patients are delaying care, including preventive care



New impediments to medication access and adherence have arisen



The changes to lifestyle habits with social distancing, high societal stress/ anxiety from fear of COVID-19 may affect those with CVD

Quantitative Survey

IMPORTANCE

- People with chronic conditions are prone to be affected by the COVID-19 Pandemic.

- Limited data documenting the Pandemic impacts from low- and middle-income countries such as India.

- On 24 March 2020, Indian government ordered a nationwide lockdown until June in four phases.
- Further, extended only in containment zones.

OBJECTIVES

- To assess the impacts of COVID-19 and related mobility restrictions on access to health care, health status, and self-care behaviors.

- To assess the impacts of COVID-19 pandemic on employment and household income.

- To compare the COVID-19 pandemic impacts in rural vs. urban communities in India.

DESIGN

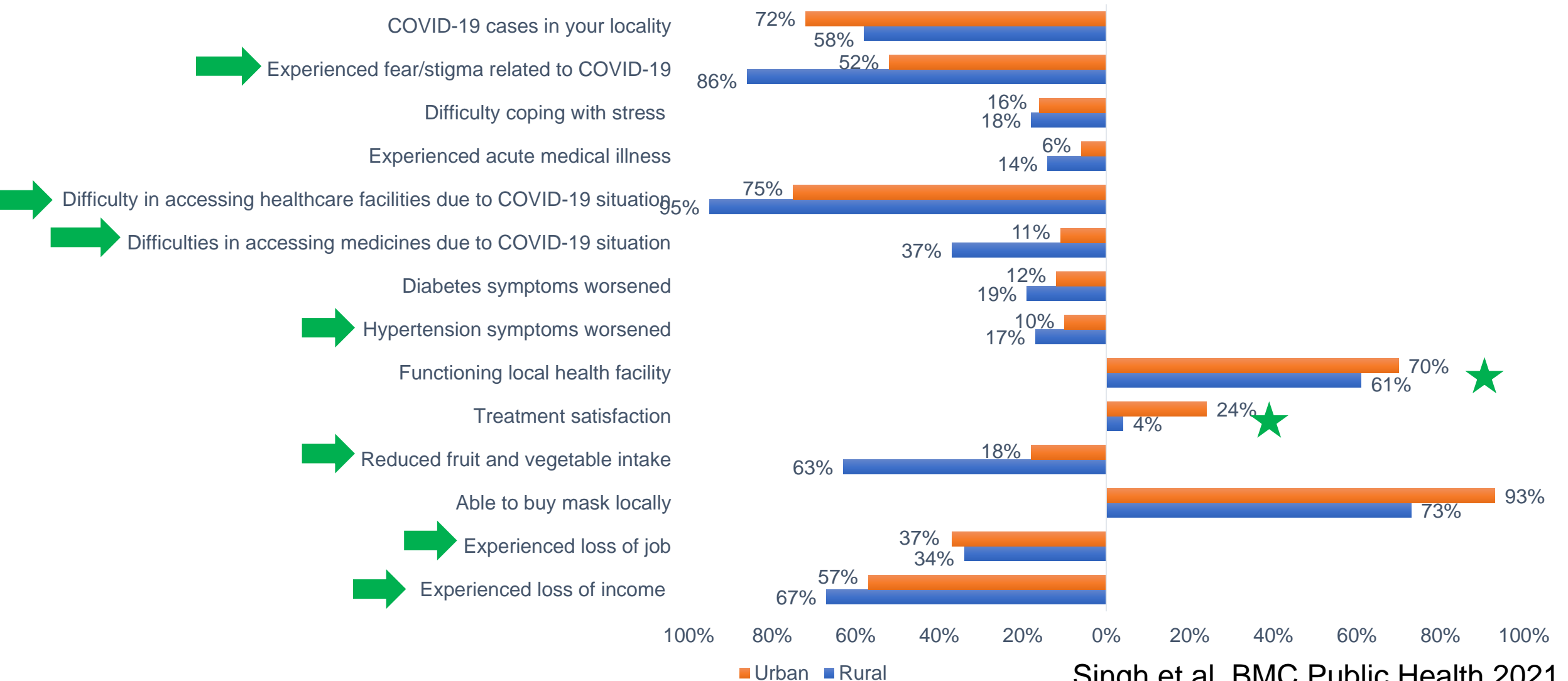
- Cross-sectional, region stratified (4 states, urban vs. rural) sampling from the existing large cohorts (CARRS and UDAY).

- Telephone survey conducted in adults with one or more chronic conditions (diabetes, hypertension, heart disease, stroke, CKD)

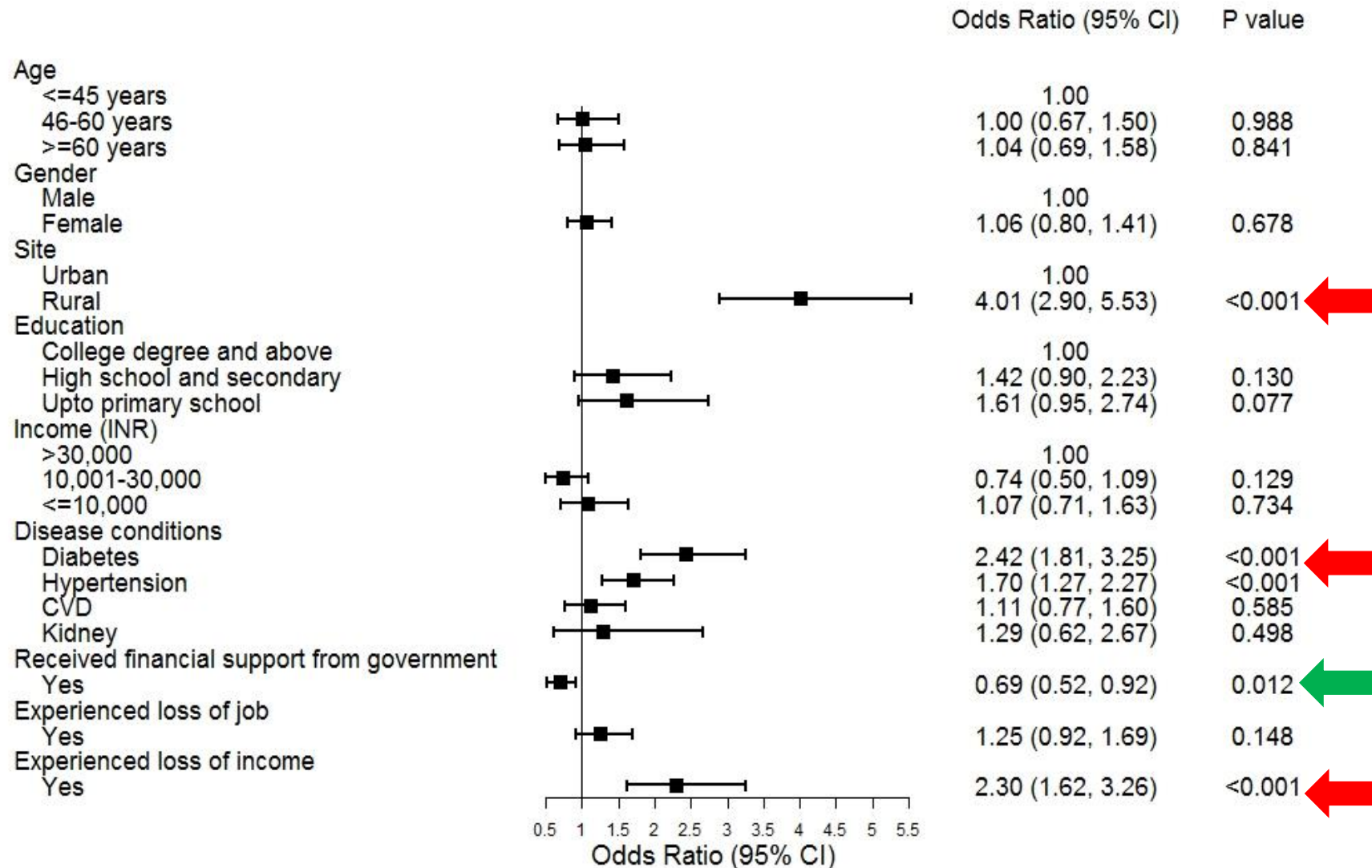
- Data collected between 29 July 2020 to 12 September 2020 in four sites (Delhi, Chennai, Haryana, Vizag) in India.

COVID-19 Impacts in urban and rural people with chronic conditions

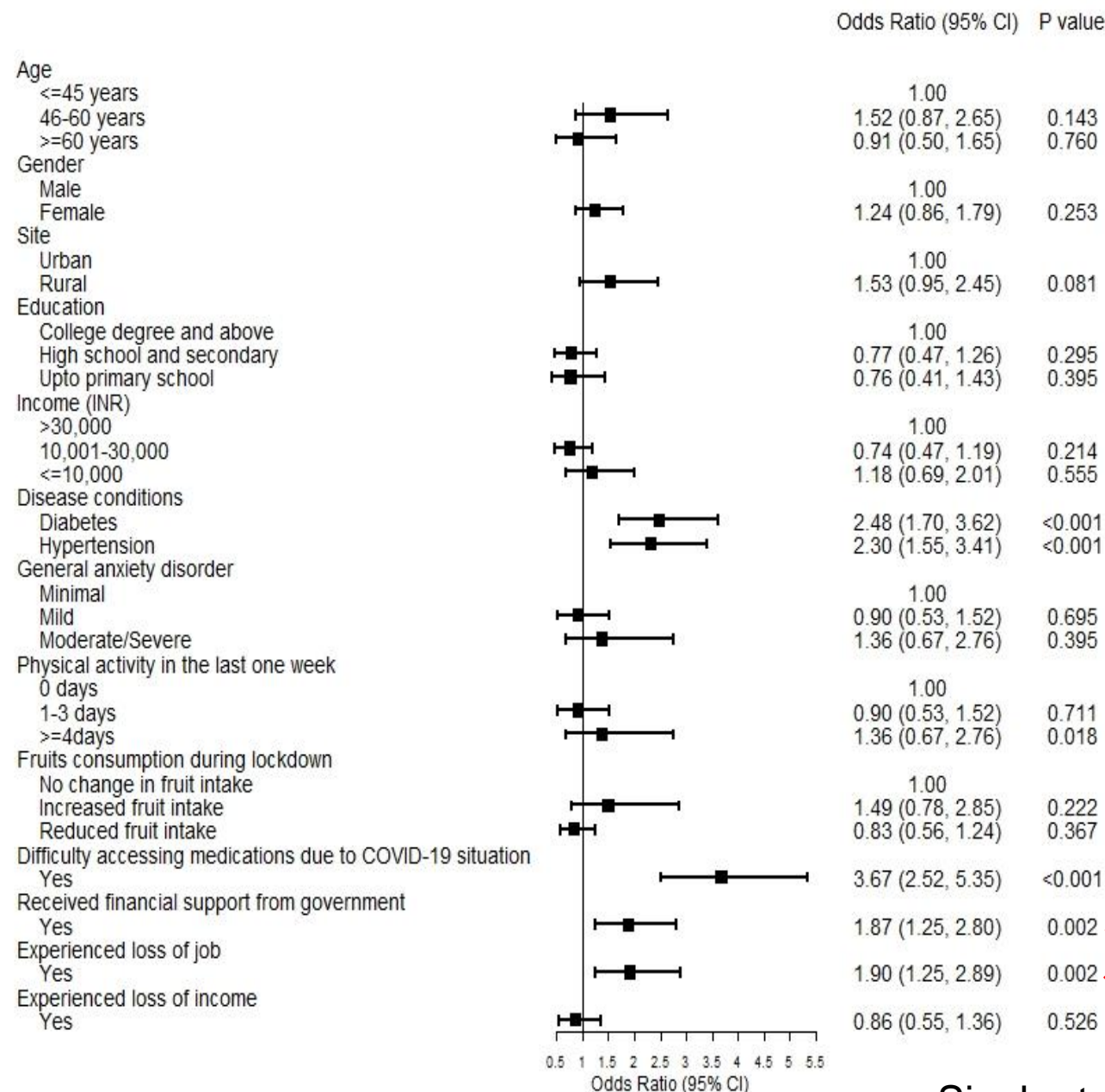
- 1734 out of 2335 contacted individuals completed the survey (response rate=74%)
- Mean age: 58 years (11.3), 50% men



Correlates of difficulty in accessing medicines



Correlates of worsening diabetes or hypertension symptoms



Qualitative Study

OBJECTIVE

- To describe the challenges posed by the COVID-19 pandemic in people with chronic conditions and their mitigation.

METHODS

- In-depth interviews with 40 patients were audio-recorded, transcribed and coded using MAXQDA.
- Thematic analysis using interpretative approach and deductive logic

Challenges

"The impact was that there were a lot of problems. We took the ration distributed by the government. We consumed that. There were a few things [at home], we sold one or two things with the help of my daughter. My son drives a rickshaw, and my husband stays at home; we are old. It impacted him [spouse]. He [spouse] was out of work for three months." [R-02-V]

"We faced difficulties at home because I am into driving... actually, I am driver. Before lockdown, I went home for some work. Because of lockdown, I had to stay at home for 2 months, 15 days. I, my wife, and children are jobless since then. There was no possibility of doing any work or going anywhere. We had a lot of trouble at that time". [U-10-D]

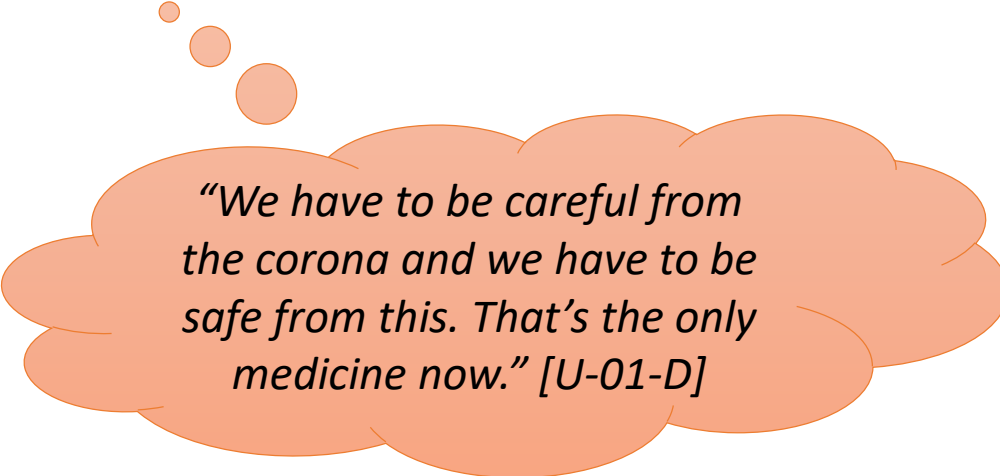
- 1. Financial difficulties**
- 2. Experienced difficulties in continuing their business or lost jobs**
- 3. Difficulties in getting back to work due to lack of transportation**
- 4. Difficulties in accessing inpatient services and access to treatment**
- 5. Delayed testing of blood sugars or clinic visits due to fear/anxiety.**

"I was not keeping well and none of the hospitals were taking any admission . . . they said that due to COVID, beds are not available. And if you are ready to sleep on ground then we will take your admission" [U-08-V]

"I was scared that I may not have this [COVID] but because of someone else I may get affected. We have doubt to go to the hospital, to the doctor. I didn't want to get infected by this (COVID-19)." [U-02-D]

Mitigators

- Participants with diabetes and hypertension were mostly aware of their elevated risk of poor outcomes if infected with SARS-CoV-2 and many feared to go out for a walk or other regular exercise.
- Participants were informed of wearing masks, social distancing, or washing hands.
- Few participants reported use of teleconsultations with doctors.



“We have to be careful from the corona and we have to be safe from this. That’s the only medicine now.” [U-01-D]

Key messages!

1

Pandemic had unforeseen adverse impacts on the health, access to treatment, care goals, employment

2

Rural participants disproportionately affected: poor treatment access and satisfaction, reduced fruits and vegetables consumption

3

Pandemic impact extends beyond health: household income, livelihood, coping skills, interpersonal relations

4

Pandemic exposed management difficulties in the health system but also provide opportunities to close gaps with innovations in the new post-COVID India

Changing environment for chronic disease care



The COVID-19 pandemic has led to digital revolution in health care, with faster adoption of telemedicine

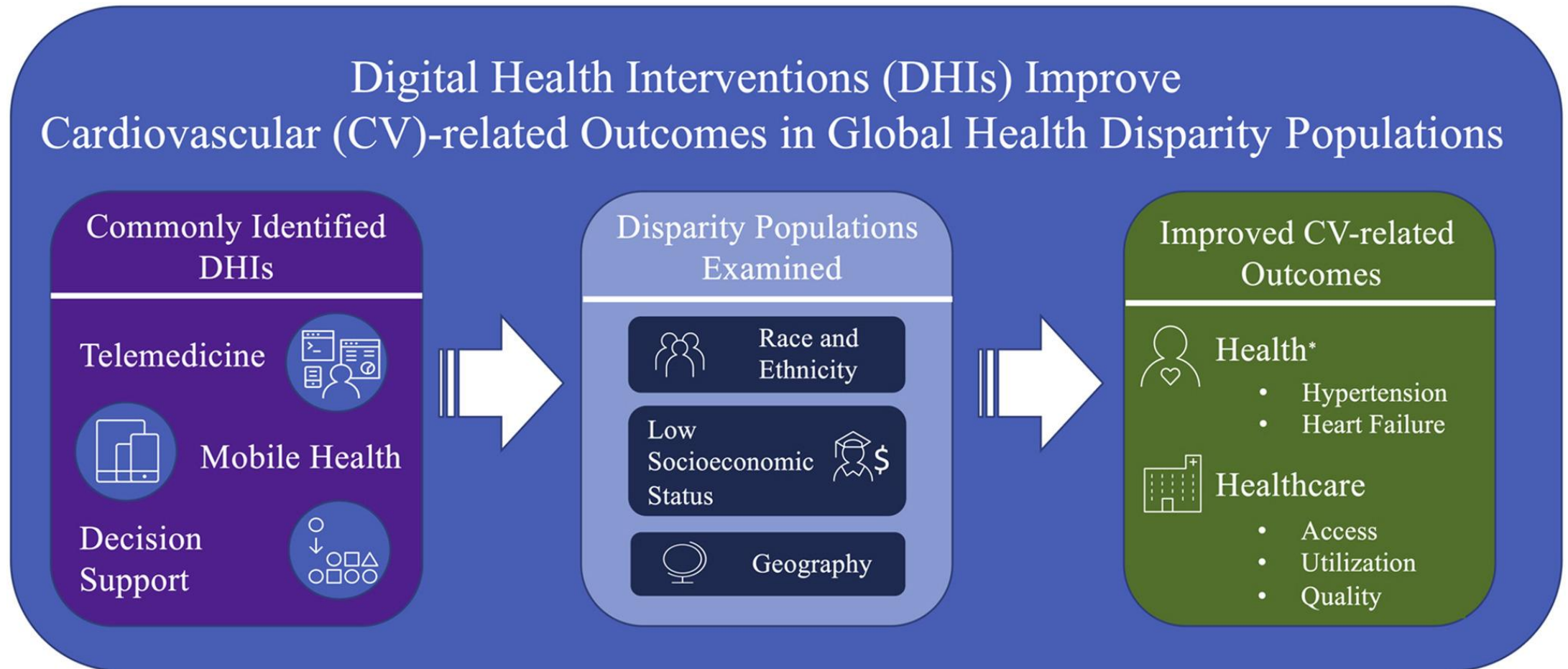


Remote consultation, m-health tools, wearables, became essential to support the traditional face-to-face interaction between patients and clinicians.



Reimbursement rapidly changed in many countries to support this digital transformation

Digital health platforms to reduce inequalities in care





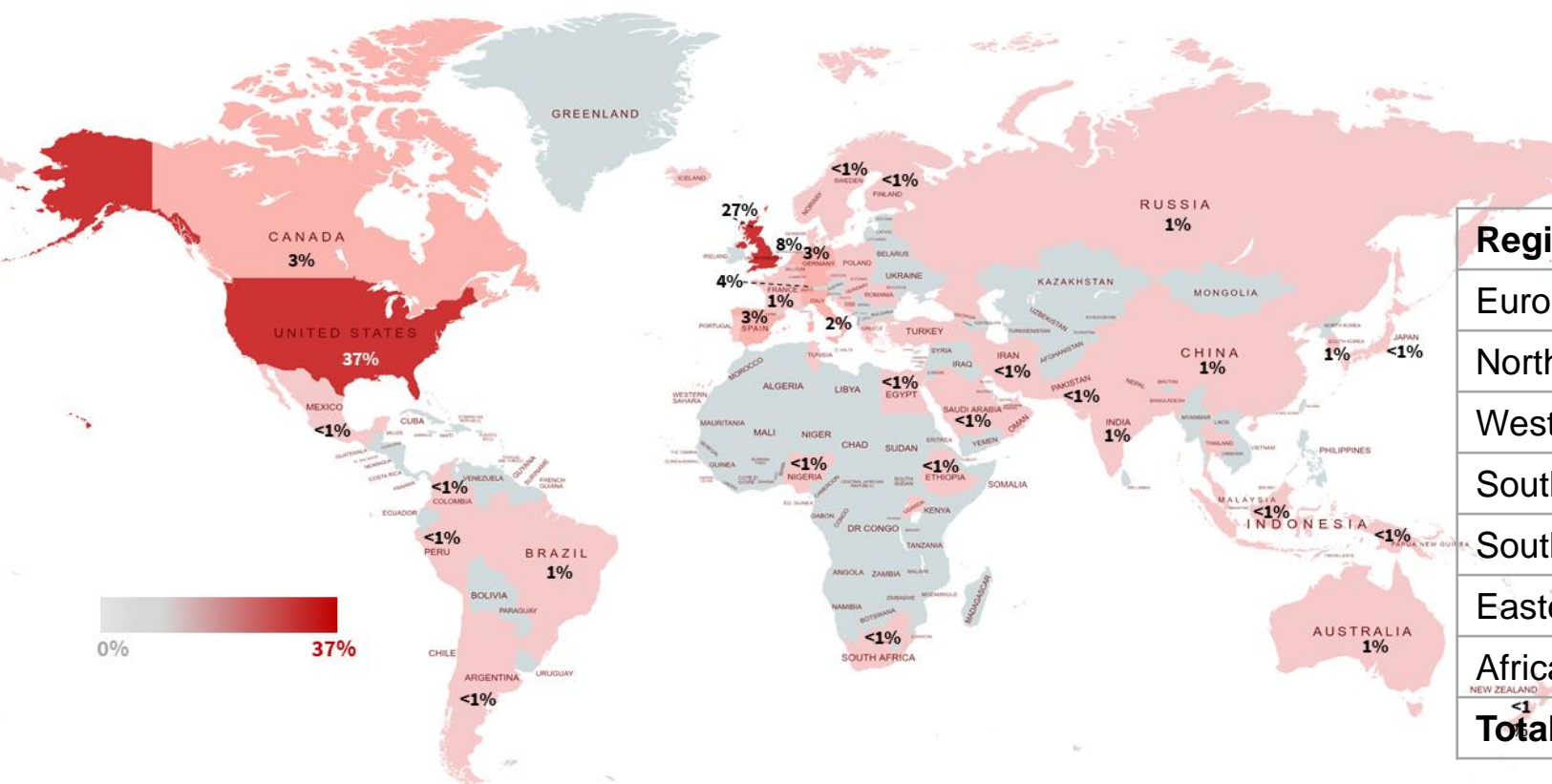
Assisted Telemedicine Clinic – Digisahayam

- ▶ Two clinics in Chennai – Kodambakkam and Nanganallur | Upcoming clinic in Pasuvanthanai, Thoothukodi
- ▶ Clinic open 6 days a week - 9 AM to 5 PM
- ▶ In-person MBBS physician consultations
- ▶ Specialist Consultation through assisted telemedicine
- ▶ Free point-of-care rapid lab investigations and ECGs
- ▶ Over 800 consultations done so far



WHF COVID-19 STUDY

BRIDGING THE RESEARCH GAP



Regions	N	Percentage
European Region	25,145	52.1
North America	19,271	39.9
Western Pacific Region	1,671	3.5
South-East Asia Region	882	1.8
South America	683	1.4
Eastern Mediterranean Region	432	0.9
African Region	187	0.4
Total	48,271	100.0

Source: Sliwa et al. Global Heart 2021



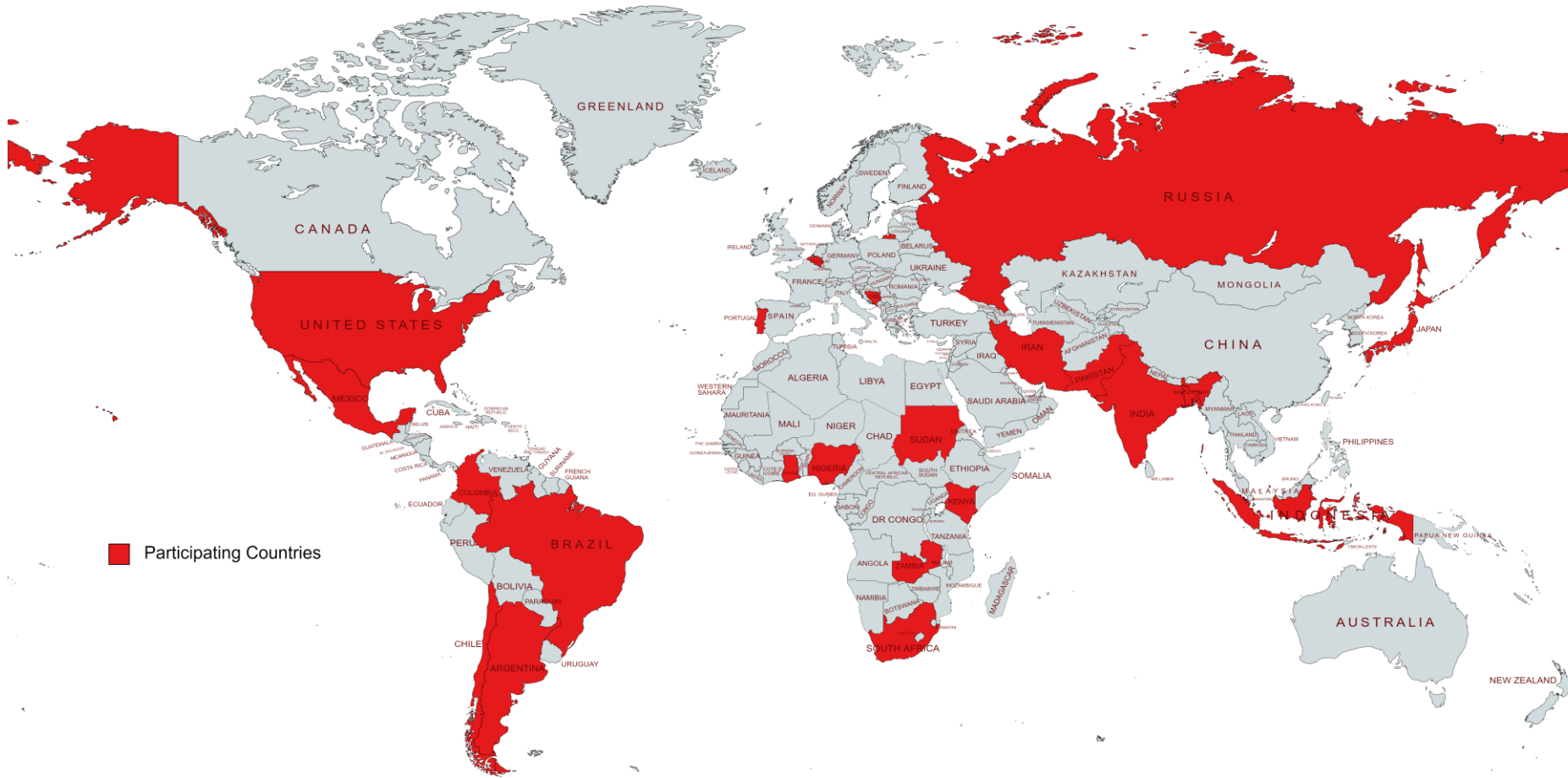
WHF COVID-19 STUDY

MAIN OBJECTIVES

COVID
WHFRESPONSE

- To identify **cardiovascular risk factors** associated with poor in-hospital prognosis among patients with COVID-19.
- To describe **cardiovascular outcomes** among patients hospitalized with COVID-19.
- Observational cohort study including consecutive confirmed Adult COVID-19 patients.

WHF COVID-19 CVD STUDY RECRUITMENT (15.09.2021)



- 5313 patients recruited
- 40 sites
- 23 Countries

Data of first 2500 patients' baseline and outcomes presented
at the European Society of Cardiology Late Breaking Science

CoViD

WHF COVID-19 STUDY



Demographic Characteristics (N=2500)	N (%)
Age, mean (SD)	56.6 (15.7)
Male	1559 (62.4%)
Ethnic Origin	
Caucasian	176 (7.0%)
Hispanic	260 (10.4%)
Black	589 (23.6%)
Middle Eastern	102 (4.1%)
Asian	1242 (49.7%)
Other	131 (5.2%)

Co-morbidities (Cardiovascular)	N (%)
Hypertension	1152 (46.1%)
Diabetes	845 (33.8%)
Coronary artery disease	284 (11.4%)
Heart Failure	102 (4.1%)
Stroke	88 (3.5%)
Atrial Fibrillation	63 (2.5%)
Peripheral vascular disease	37 (1.4%)
Cardiomyopathies	33 (1.3%)

30 Day Outcomes	N (%)
In-hospital death	342 (13.9%)
Death post discharge	83 (3.9%)
Total death	425 (17.2%)
Re-hospitalized	21 (1.0%)
Causes of death	N (%)
Respiratory failure	166 (39.6%)
Sudden cardiac death	123 (29.5%)
Presumed cardiovascular	20 (4.6%)
Heart failure	16 (3.8%)
Stroke	8 (1.9%)
Myocardial Infarction	4 (1.0%)
Pulmonary embolus	3 (0.7%)
Other	79 (18.9%)



Implications of WHF COVID-19 and CVD study

- Interim analysis shows that COVID-19 patients recruited mostly from LMICs were younger compared to other cohorts from United States and Europe
- Higher rates of hypertension and diabetes, but lower in-hospital deaths (14%)
- But significant post-discharge mortality (i.e., 17% up to 30 days)
- The study findings will facilitate the understanding of the impact COVID-19 pandemic and guide the health care planning globally
- Long-term follow-up study is in planning

Conclusions

1

Unintended consequences on the healthcare access, psycho-social and economic status

2

Opens new opportunities to revolutionize patient's access to treatment

3

Conceptualize a "new normal of care delivery" for people with chronic conditions (*telehealth, home monitoring devices, home delivery of medicines*)



