

# Health Expert Statement Addressing Safety of Reusables and COVID-19

Reuse and refill systems are an essential part of addressing the plastic pollution crisis and moving away from a fossil fuel-based economy. They can create jobs and help build local economies. The COVID-19 global pandemic has triggered a discussion of how to ensure the safety of reusable systems in a public health crisis. Based on the best available science and guidance from public health professionals, **it is clear that reusable systems can be used safely by employing basic hygiene.** Below are the key facts to keep in mind.

## Available Evidence Indicates that the Virus Spreads Primarily from Inhaling Aerosolized Droplets, Rather than through Contact with Surfaces

According to the US Centers for Disease Control and Prevention (CDC), “The virus is thought to spread mainly from person-to-person...between people who are in close contact with one another, through respiratory droplets produced when an infected person coughs, sneezes or talks.”<sup>1</sup> While “it may be possible that a person can get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or possibly their eyes,” aerosolized droplets are the only documented method of COVID-19 transmission to date.<sup>2</sup>

## Disposable Products Present Similar Issues As Reusable Ones

Studies show that the COVID-19 virus can remain infectious on surfaces for varying times depending on the material. One study showed infectious virus lasted up to 24 hours on paper and cardboard and between 2-3 days on plastic and stainless steel<sup>3,4</sup> In another study, infectious virus was not found on print or tissue paper after just three hours, whereas it was active up to 1 day on cloth, up to 3 days on glass, and 6 days on plastic and stainless steel.<sup>5</sup> To prevent transmission through objects and surfaces, one can assume that any object or surface in a public space — reusable or disposable — could be contaminated with the virus. Single-use plastic is not inherently safer than reusables, and causes additional public health concerns once it is discarded.

## Reusable Products are Easily Cleaned

Most common approved household disinfectants<sup>6</sup> should be effective for disinfecting hard surfaces, including reusable items, with such surfaces being cleaned thoroughly using a detergent or soap and hot water prior to disinfection if they are visibly dirty. Dishwashers and washing machines should be effective if operated according to manufacturers’ instructions and, in the case of laundry, using the warmest appropriate water setting for the items and drying

---

<sup>1</sup> <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html>

<sup>2</sup> <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cleaning-disinfection.html>

<sup>3</sup> <https://www.nejm.org/doi/full/10.1056/NEJMc2004973>

<sup>4</sup> [https://www.thelancet.com/journals/lanmic/article/PIIS2666-5247\(20\)30003-3/fulltext](https://www.thelancet.com/journals/lanmic/article/PIIS2666-5247(20)30003-3/fulltext)

<sup>5</sup> [https://www.thelancet.com/journals/lanmic/article/PIIS2666-5247\(20\)30003-3/fulltext#coronavirus-linkbac%20k-h%20ader](https://www.thelancet.com/journals/lanmic/article/PIIS2666-5247(20)30003-3/fulltext#coronavirus-linkbac%20k-h%20ader)

<sup>6</sup> <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>

items completely. Similarly, washing hands with soap and water or an alcohol-based hand rub, and then avoiding touching your eyes, mouth, or nose are effective ways to protect yourself.<sup>7,8</sup>

## Best Practices for Reusable Products in the Retail Space

**1. Comply with food safety/ health codes.** Within retail and foodservice, reusable plates, cutlery, cups, and napkins are governed by strict state food safety procedures outlined in health codes. Ware-washing at high temperatures with additional sanitizing procedures are standard in the industry and provide more than adequate protection against virus transmission.

**2. Use additional hygienic practices for COVID.** The bottom line is that reusable items are safe to use when cleaned with soap and water, and there is no substitute for thorough hygiene. Retail food establishments should follow Food and Drug Administration guidance regarding retail practices and COVID-19 safety.<sup>9</sup>

**3. Employ contact-free systems for customers' personal bags and cups.** Systems in which there is no contact between the customer's reusable cup, container or bag and retail surface areas can protect workers and provide a precautionary approach to addressing COVID-19 transmission. For example, California's Occupational Safety and Health Administration recommends that "when customers bring their own bags, employees should be instructed to:

- Not touch or place groceries in customer brought bags.
- Ask customers to leave their own bags in the shopping cart.
- Ask customers to bag their own groceries

**4. Ensure that workers are protected.** In addition to investing in safe and accessible reusable systems, other steps retailers can take to protect workers include providing PPE, paid sick leave, reduced occupancy in stores, and requiring customers to wear masks and practice social distancing. Customers should handle their own reusable items when going to shops and stores.

---

<sup>7</sup> <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cleaning-disinfection.html>

<sup>8</sup> [https://www.journalofhospitalinfection.com/article/S0195-6701\(20\)30046-3/fulltext](https://www.journalofhospitalinfection.com/article/S0195-6701(20)30046-3/fulltext)

<sup>9</sup> <https://www.fda.gov/food/food-safety-during-emergencies/best-practices-retail-food-stores-restaurants-and-food-pick-up-delivery-services-during-covid-19>

# List of Signatories by Country/Region

*Titles and affiliations are included to show the breadth and depth of expertise of signatories and are not included to imply endorsement by their employers.*

## **Brazil**

Dr. Saulo Delfino Barboza, PhD  
Associate Professor Master Program  
in Health & Education University of  
Ribeirao Preto

## **Mexico**

Dr. Kirvis J Torres  
Poveda  
Epidemiologist

## **Canada**

Dr Joe Vipond  
Emergency Physician - MD. Interim  
President, Canadian Association of  
Physicians for the Environment Canadian  
Association of Physicians for the  
Environment

Joey Lee  
Registered Nurse  
Unity Health Toronto

Olga Hallborg, RN, MPH  
candidate  
Registered Nurse Nelson Jubilee  
Manor

Laurence Guillaumie, PhD  
Professor Université  
Laval

## **United States of America**

Nickolas Zaller, PhD  
Professor University of Arkansas for  
Medical Science

Dr. Steve Luby Professor of Medicine  
(Infectious Diseases and Geographic  
Medicine), Director of Research at the  
Center for Innovation in Global Health,  
Senior Fellow, Woods Institute for the  
Environment, Senior Fellow at Freeman  
Spogli Institute for International Studies  
Stanford University

Dr. Tova Fuller Assistant Clinical  
Professor, Department of Psychiatry; Vice  
President University of California San  
Francisco, San Francisco Bay Area  
Physicians for Social Responsibility

Dr. Barbara Sattler, RN, DrPH,  
FAAN Professor, Public Health  
Program University of San Francisco

Dr. Paul English  
Environmental Epidemiologist Public  
Health Institute Corinna Tempelis  
Research Scientist (retired and active)  
California Department of Public  
Health

Shellie L. Klimen, MSN PHN  
Registered Nurse Santa Rosa  
Memorial Hospital

**United States of America (cont.)**

Michelle Bergen MSN  
FNP-BC Nurse Practitioner  
Saint Anges Medical Center

Kenna Lee, RN  
Registered Nurse Memorial  
Hospital

Peggy da Silva, MPH  
Training and Education Specialist  
Consulting for Community

Kathleen Roe, DrPH, MPH Professor  
Emerita, Department of Health Science  
and Recreation San Jose State  
University

Jodi Sherman, MD  
Associate Professor of Anesthesiology and  
Epidemiology in Environmental Health  
Sciences, Director, Program in Healthcare  
Environmental Sustainability (PHES) Yale  
University

John Nwangwu  
Professor of Epidemiology & Global Health  
Southern Connecticut State University

Mark Miller  
Former Director of Research Fogarty  
International Center  
NIH

Linda Birnbaum  
Retired Director  
National Institute of Health Sciences

Dr. Anthony Panzera, PhD,  
MPH Adjunct Professor  
American University

Dr. Lisa Jordan, PhD, RN, CNE  
Retired NurseMember of ANHE, IAHC,  
and DC/MD League for Nursing

Dr. Laura Anderko PhD RN  
Robert and Kathleen Scanlon Endowed  
Chair in Values Based Health Care &  
Professor Georgetown University School  
of Nursing and Health Studies

Alan Becker, Ph.D.  
Professor, Environmental and Occupational  
Health Florida A&M University

Warren Lavey  
Adjunct Associate Professor University of  
Illinois

Sarah Patrick  
Assistant Professor, Public Health  
Southern Illinois University,  
Carbondale  
Gloria E. Barrera, MSN, RN, PEL-CSN  
President Elect Illinois Association of  
School Nurses

Gloria E. Barrera, MSN, RN, PEL-CSN  
President Elect Illinois Association of  
School Nurses

Jennifer Gray Ph.D  
Associate Professor  
Northern Illinois University  
Scott Cassel Chief Executive  
Officer/Founder Product  
Stewardship Institute, Inc.

Sydney Harris  
Sr. Associate, Policy and Programs  
Product Stewardship Institute, Inc.

Scott Cassel  
Chief Executive Officer/Founder Product  
Stewardship Institute, Inc.

Nate Horwitz-Willis, DrPH, MPH, MPA  
Assistant Professor, Public Health &  
Coordinator of Public Health Practice  
Massachusetts College of Pharmacy and  
Health Sciences

Jean Flatley McGuire, PhD  
Professor of Practice, Health Sciences  
Department Northeastern University

Dr. Shira Fischer  
Physician Policy Researcher RAND  
Corporation

Dr. Suzanne Cashman, ScD, MS  
Professor and Director of Community  
Health University of Massachusetts Medical  
School

Greylin Nielsen, MPH  
Doctoral Student Boston University  
School of Public Health

Dr. Harlee Strauss, PhD  
Retired, Consultant in Toxicology and  
Risk Assessment H Strauss Associates,  
Inc.

Pietra Check, MPH  
Course Educator  
Boston University Medical  
School

Phil Brown  
University Distinguished Professor of  
Sociology and Health Sciences  
Director, Social Science  
Environmental Health Research  
Institute Northeastern University

Lindsay Tallon, PhD, MSPH, CPH  
Assistant Professor of Public Health  
Assistant Director, Master of Public  
Health Program Massachusetts  
College of Pharmacy and Health  
Sciences

Craig Slatin  
Professor Emeritus University of  
Massachusetts, Lowell

Dr. Marie O'Neill  
Professor of Environmental Health Sciences  
and Epidemiology University of Michigan  
School of Public Health

Laura Senier, PhD, MPH  
Associate Professor Northeastern  
University Bouvé College of Health  
Sciences

Joseph Eisenberg  
Professor and Chair of the Department  
of Epidemiology University of Michigan

Renee Crichlow MD, FAAFP  
Director of Advocacy and Policy University  
of Minnesota, School of Medicine

Marjorie McCullagh, PhD, RN  
Professor University of Michigan School  
of Nursing

Dr. Robyn Gilden  
Assistant Professor University of  
MD School of Nursing

Dr. Kolapo DaSilva  
Emergency Physician

Megan Latshaw  
Associate Scientist  
Johns Hopkins Bloomberg School of Public  
Health

Kayla Meza, MPH  
Research Assistant  
ASlso

Dr. Richard Cote  
Professor and Chair, Department of  
Pathology & Immunology Washington  
University School of Medicine in St. Louis

Lise Saffran  
Assistant Teaching Professor University of  
Missouri Department of Public Health

Louis Mansky, PhD  
Director, Institute for Molecular Virology  
University of Minnesota Medical School

Greg Kearney, DrPH, MPH, REHS  
Associate Professor and Program Director,  
DrPH Environmental & Occupational  
Health East Carolina University

Dr. Beth Rosenberg  
Associate Professor of Public Health and  
Community Medicine Co-Chair, Public  
Health Admissions Committee Tufts  
University School of Medicine

Anthony L. Schlaff, MD, MPH  
Director, Public Health Program  
Tufts University School of  
Medicine

Dr. Bernadette M. Longo, PhD, RN,  
FAAN Chair of the Environmental Health  
Committee Nevada Nurses Association

Mary Guinan, MD, Ph.D.  
Founding Dean Emerita School of  
Public Health, University of Nevada,  
Las Vegas

Kathryn J Carey BSN RN CMSRN RN-BC  
Clinical Nurse III New York Presbyterian  
Hospital, Columbia University Irving  
Medical Center

Anthony J. Santella, DrPH, MCHES,  
Adv Cert  
Associate Professor of Public Health  
Hofstra University

Dr. Richard Novick, MD  
Recanati Professor of Science, Emeritus,  
Member, National Academy of Sciences,  
Departments of Medicine and  
Microbiology NYU School of Medicine

Jilliann Elliott  
Associate Professor,  
Environmental Medicine and Public  
Health Mount Sinai

Sergios-Orestis Kolokotronis, PhD  
Assistant Professor SUNY Downstate Health  
Sciences University

Michele Okoh  
Senior Lecturing Fellow  
Duke Environmental Law and Policy  
Clinic

Leslie Elliott, Ph.D., MPH  
Clinical Associate  
Professor University of  
Nevada, Reno

Justus B. Cohen, PhD  
Assistant Professor, Department of  
Microbiology and Molecular Genetics  
University of Pittsburgh, School of Medicine

Michael P. Koster, MD, FAAP  
Division Director, Pediatric Infectious  
Diseases, Associate Professor of  
Pediatrics, Alpert Medical School of Brown  
University, Attending Physician, Division of  
Pediatric Hospital Medicine and Infectious  
Diseases Brown University

Kelly Bouthillet DNP, APRN, CCNS,ACNP  
-BC  
Acute Care NP & Clinical Nurse Specialist  
Adjunct Nursing Faculty, University of SC,  
Beaufort President, South Carolina Nurses  
Association Hilton Head Regional  
Healthcare

Dr. John Robert Koethe  
Associate Professor Vanderbilt  
University Medical Center

Arsham Alamian, PhD, MSc, FACE  
Associate Professor of Epidemiology  
Department of Biostatistics and  
Epidemiology Director, Master of Public  
Health Program East Tennessee State  
University

Phillip Scheuerman  
Professor East Tennessee State University  
College of Public Health

Bruce Jennings  
Senior Fellow, Center for Humans and  
Nature, Adjunct Associate Professor, Senior  
Advisor at the Hastings Center Vanderbilt  
University

Chunrong Jia, PhD  
Associate Professor of Environmental Health  
University of Memphis

Julian Leibowitz, M.D.Ph.D.  
Director, MD/PhD Program Professor of  
Microbial Pathogenesis and  
Immunology Texas A&M University  
HSC College of Medicine

Hua Zhao, Ph.D.  
Professor The Virginia Commonwealth  
University School of Medicine

Patrick O. Pithua, BVM, MSc, PhD,  
DLSHTM  
Associate Professor Virginia Tech

Dr. James Conway, MD, FAAP  
Professor of Pediatrics Pediatric Infectious  
Diseases Fellowship Program Director  
Director, SMPH Office of Global Health  
Associate Director, UW-Madison Global  
Health Institute Medical Director - UW Health  
Immunization Program University of  
Wisconsin – Madison, School of Medicine &  
Public Health

Tran Huynh  
Assistant Professor of Environmental  
and Occupational Health Drexel  
University School of Public Health

Dr. Darci Martinz DNP & FNP candidate,  
BSN, RN  
Public Health Administrator Community  
Leadership Academy/Victory Preparatory  
Academy

Dr. Ben Locwin  
Healthcare Executive (Pharmaceuticals and  
Vaccines), State Public Advisor State  
Science & Public Health Task Force,  
Senate Office Advisory Panel

Anne Katten  
Pesticide and Work Safety Project  
Director CRLA Foundation

Elgin Avila MPH, CPH  
Founder/Principal Investigator  
Equitable Health Solutions, LLC

Dr. Krista Farey  
Staff Physician Contra Costa County  
Health Services

Richard Rothenberg  
Regents' Professor Georgia State  
University School of Public Health

Dr. Lisa Jordan  
Associate Teaching Professor, Biology  
Department Drew University

Erika Halsey, MPH  
APHA member, Climate and Health Subtopic  
Committee

Dr. Shanda Demorest, DNP,  
RN Member Engagement  
Manager Practice Greenhealth

Katheryn Cortes, BSN, RN, OCN  
Registered Nurse Memorial  
Sloan-Kettering Cancer Center

Ralph Brindis MD, MPH  
Clinical Professor of Medicine  
University of California, San Francisco

Laura D. Kramer  
Professor of Biomedical Sciences University  
at Albany, School of Public Health

Jeffrey E. Korte PhD

Rosemary Valedes Chaudry, PhD, MPH, RN  
Retired RN, Public Health

## **Austria**

Dr. Hans-Peter Hunter  
Deputy Head and Senior Scientist  
Department of Environmental Health,  
Medical University of Vienna.

## **France**

Dr. Barbara Demeneix  
Professor Comparative Physiology  
Laboratory, National History  
Museum, Paris United Kingdom



## **United Kingdom**

Dr. Jennifer Cole  
Research Fellow, AMR  
University of London

Prof. Tamara Galloway  
Ecotoxicology,  
University of Exeter

Prof. Charlotte Williams  
Professor of Chemistry  
Oxford University

## **Italy**

Ferdinando Laghi, MD  
President International Society of  
Doctors for the Environment

Dr. Monica Zoppé  
Research Scientist  
CNR

Vittore Casarosa  
Senior Research Associate  
CNR-ISTI

Liliana Cori  
Research Technologist Institute of  
Clinical Physiology, National Research  
Council, Italy IFC-CNR

Dr. Agostino Di Ciaula, MD  
Internist President of the Scientific  
Committee International Society of Doctors  
for Environment (ISDE) – Italy

Dr. Stefani Gatti  
Presidente APS Comunità  
Interattive-Officina per la Partecipazione  
AIP2

Dr. Susan George  
ex Head of Course on Business, Public  
and NGO Communication Pisa University

## **Cyprus**

Dr. Konstantinos Makris  
Associate Professor of Environmental  
Health, Director of Water and Health  
Laboratory Cryprus University of  
Technology, Cyprus International Institute  
for Environmental and Public Health

## **Greece**

Vini Dimitra  
Paediatrician, MSc,  
Director of Thalassaemia Unit General  
Hospital of Nikaia

Lia Patsavoudi, Ph.D.  
Professor of Biology Dept. of Biomedical  
Engineering, University of West Attica

## **Uganda**

Dr. Iddi Matovu  
Program Manager-DREAMS Rakai  
Health Sciences Program-RHSP

Dr. Fred Nalugoda, S. Stat, MHS  
Director of Kalisizo Field Station, Junior  
Principal Investigator Rakai Health  
Sciences Program-RHSP

Dr. Godfrey Kigozi, MBChB, MPH  
Medical Officer, Junior Principal Investigator  
Rakai Health Sciences Program-RHSP

### **Malawi**

Vita Mithi  
Researcher and Public Health Professional  
Knowledge Action Change

### **Tunisia**

Semia Gharbi  
Teacher and expert in science and  
management of environment  
AEEFG

### **South Africa**

Rico Euripidou  
Environmental Health Campaign Manager  
groundwork

### **Philippines**

Dr. Geminn Louis C. Apostol  
Professor and Lead Environmental Health  
Specialist, Ateneo School of Medicine and  
Public Health Ateneo School of Medicine and  
Public Health

### **Malaysia**

Dr. Sharifah Norkhadijah Syed Ismail  
Senior Lecturer, Department of  
Environmental and Occupational Health  
Faculty of Medicine and Health Sciences  
Universiti Putra Malaysia

### **Taiwan**

Tsu-Nai Wang  
Professor, Department of Public Health,  
College of Health Science, Kaohsiung  
Medical University, Kaohsiung

Dr. Pei-Shih Chen, PhD  
Chair, Professor of Public Health  
Kaohsiung Medical University

Guey Chuen Perng, PhD  
Professor, Department of Microbiology  
and Immunology College of Medicine,  
National Cheng Kung University

### **Switzerland**

Jane Muncke  
Chief Scientific Officer  
Food Packaging Forum