

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.”¹ 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.²

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^{3,4} 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.⁵ 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 disinfectants⁶ 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

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

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

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

⁴ [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)

⁵ [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)

⁶ <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.^{7,8}

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.⁹

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.

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

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

⁹ <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

Raluca Radu, MSN, RN
Secretary "Canadian
Association Of Nurses
For The Environment

Canada (Cont.)

Jessica Madrid
President Canadian Association of Nurses
for the Environment

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

Linda Birnbaum
Retired Director
National Institute of Health Sciences

United States of America (Cont.)

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

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

Kenna Lee, RN
Registered Nurse Memorial
Hospital

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

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

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

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

Warren Lavey
Adjunct Associate Professor University of
Illinois

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

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

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

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

Mark Miller
Former Director of Research Fogarty
International Center
NIH

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
ASIsso

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

Dr. Lori A. Hoepner
Assistant Professor
SUNY Downstate Health Sciences
University

A. Sally Davis
Assistant Professor of Experimental
Pathology, Kansas State University

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
Interattiva-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 Cyprus 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

Ramon Lorenzo Luis Rosa Guinto, MD DrPH
Founder & Chief Planetary Doctor, PH Lab
Next Generation One Health Adviser, Lancet
One Health Commission at the University of
Oslo

Dr. Jonathan Jadloc
National Chair, Climate Change Committee,
Philippine College of Physicians

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

Taiwan (Cont.)

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

Prof. Valérie D'Acremont
Tropical diseases and global health
Centre for Primary care and Public
Health, University of Lausanne

Israel

Prof. Hagai Levine
Chairman
Israeli Association of Public Health
Physicians School of Public Health,
Hebrew University-Hadassah

Dr Hagit Ulanovsky
Environmental Health Risk
Management consultant
Co-founder & director, SP-Interface

Rachel Golan, PhD, MPH
School of Public Health, Ben-Gurion
University of the Negev

Ireland

Prof. Luke O'Neill
Immunologist
Trinity College Dublin