

健康分野の専門家の声明 新型コロナウイルスとリユース製品の安全性について

リユース（再利用）とリフィル（詰め替え）の仕組みは、プラスチック汚染の危機に対処するための不可欠な要素であり、また化石燃料を中心とした経済からの脱却にとっても重要です。リユースとリフィルの仕組みにより、雇用を創出し、地域社会の発展に貢献することができます。新型コロナウイルスの世界的な大流行は、公衆衛生の危機に際して、リユースの仕組みの安全性をどう確立するか議論のきっかけになりました。現時点における最善の科学と公衆衛生の専門家の助言に基づいて、**基本的な衛生対策をとることで、リユースの仕組みを安全に利用できることが明らかになっています。**以下に、留意すべき重要な事実を紹介します。

今わかっているところでは、ウイルス感染は、物の表面との接触よりも、主にエアロゾル化した飛沫を吸い込むことで拡散します。

米国疾病対策センター（CDC）によると、「このウイルスは、主に人から人へと感染して広がると考えられています。（中略）感染者が咳やくしゃみをしたり、話したりしたときに出る呼吸器飛沫を介して、きわめて近距離にいる人の間で感染が起こります¹」。一方で、「ウイルスが付着している物に触れた後、自分の口や鼻、目に触れることで新型コロナウイルスに感染する可能性もありますが」今のところ、唯一の証明されている感染経路は、エアロゾル化された飛沫です²。

使い捨て製品にはリユース製品と同様の問題がある

新型コロナウイルスは、感染性を維持する時間が、物の材質によって異なることが複数の研究で明らかになっています。ある研究では、感染性ウイルスは紙やダンボールでは24時間、プラスチックやステンレススチールでは2～3日の間、持続することが分かりました^{3,4}。別の研究では、感染性ウイルスは、わずか3時間後にはプリントやティッシュペーパーには見られなかったが、布の上では1日、ガラス上では3日、プラスチックとステンレス鋼では、6日まで生きていました⁵。物体や接触面を介した感染を防ぐためには、リユース製品か使い捨て製品かを問わず、公共空間にあるあらゆる物にウイルスが付着している可能性があると考えべきです。使い捨てプラスチックは、リユース製品よりも本質的に安全とはいえ、一度廃棄されると公衆衛生上のさらなる懸念を引き起こします。

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)

リユース製品は簡単に洗浄できる

一般的に承認されたほとんどの家庭用消毒剤⁶は、リユース製品を含む硬い表面の消毒に有効で、表面が目に見えて汚れている場合には、消毒の前に洗剤または石鹼とお湯を使用することで十分に洗浄されます。食器洗い機や洗濯機は、メーカーの指示に従って操作し、洗濯物の場合は、適切温度の温水を使用し、完全に乾燥させれば効果的です。同様に、石鹼と水、またはアルコール系のハンドラブ（手指用洗浄剤）で手を洗い、目や口、鼻に触れないようにすることも、自分の身を守るための効果的な方法です^{7,8}。

小売業におけるリユース製品のベストプラクティス

1. 国内のウイルス感染防止に関する規制やガイドラインを遵守する

小売店や外食産業では、リユース用のプレート、カトラリー、カップ、ナプキン等は、衛生基準に則った国の厳格な食品安全手順によって管理されています。高温での食器洗浄と追加の消毒手順は業界の標準であり、ウイルス感染に対し十分な保護力があります。

2. コロナ対策として、追加的な衛生措置をとる

つまり、石鹼と水で洗えばリユース製品は安心して使用可能で、徹底した衛生対策に代わるものはありません。小売食品店は、小売慣行および新型コロナウイルスの安全性に関するアメリカ食品医薬品局（日本では今回のコロナ対策については厚生労働省にあたる）のガイダンスに従うべきです⁹。

3. 顧客のマイバッグや持ち込み容器に触れない仕組みをつくる

顧客のリユース用の容器やマイバッグに小売店側が接触しない仕組みは、労働者を保護し、新型コロナウイルスの感染に対処するための予防的アプローチになります。例えば、米国カリフォルニア州の労働安全衛生局は、「顧客が自分のバッグを持ち込む場合は、従業員に次のように指示すべきである」と推奨しています。

- 顧客のマイバッグに触れたり商品を入れたりしない。
- 顧客に自分でマイバッグをカートに置いてもらうようお願いする。
- 顧客に自分で商品を袋に入れてもらうようお願いする

4. 労働者の保護を徹底する

安全で利用しやすいリユースの仕組みへの投資に加えて、小売業者が労働者を保護するための他の措置としては、PPE（個人用防護具）の提供、有給の病気休暇、入店者数を制限するこ

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

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>

と、顧客にマスクの着用と物理的な距離をとることを要請することなどが挙げられます。お店では、顧客が自分でリユース製品を扱うべきです。

署名者リスト（国・地域ごと）

肩書きや所属は、署名者の専門性とその広範さを示すために記載しており、雇用主の推薦を意味するものではありません。

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 (Pharmaceutics 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 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

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