Immunization represents one of the greatest public health achievements. Vaccines save lives, make communities more productive and strengthen health systems. They are critical to attaining the UN Sustainable Development Goals. Vaccination also represents value for investment in public health. It is undisputedly one of the most cost-effective ways of avoiding disease, each year preventing 2-3 million deaths globally.*

We the concerned scientists, public health professionals, physicians, and child health advocates issue this Salzburg Statement along with the International Working Group on Vaccination and Public Health Solutions, proclaiming our unwavering commitment to universal childhood vaccination, and our pledge to support the development, testing, implementation, and evaluation of new, effective, and fact-based communication programs. Our goal is to explain vaccinations to parents or caregivers, answer their questions, address their concerns, and maintain public confidence in the personal, family and community protection that childhood vaccines provide.

Every effort will also be made to communicate the dangers associated with these childhood illnesses to parents and communities since this information seems to have been lost in the present-day narrative.

While vaccine misinformation has led to serious declines in community vaccination rates that require immediate attention, in other communities, particularly in low-income countries, issues such as lack of access and unstable supply of vaccines need to be addressed.

---

The Salzburg Statement on Vaccination Acceptance

OVERVIEW

One of the world’s most devastating diseases – smallpox – was eradicated in 1980 following a global immunization campaign led by the World Health Organization.* Vaccines have prevented hundreds of millions of childhood infectious diseases such as polio, measles, mumps, rubella, diphtheria, pertussis, tetanus, hepatitis B, meningitis, rotavirus, and HPV infections that lead to cervical cancer. Vaccines save up to 3 million lives yearly. Every USD$1 spent on childhood immunization returns up to USD$44 in benefits.*

These data are based on decades of peer-reviewed scientific studies that unequivocally support the safety, efficacy and positive benefit-risk ratios of childhood vaccines.

- Measles once killed 2 million people globally every year.
- Measles can have serious consequences, with 30% of cases having complications especially in those who are undernourished and immune compromised, including pneumonia, encephalitis, and hearing loss.
- Following the discovery of a measles vaccine in the mid-1960s, deaths plummeted to 110,000 globally in 2017. In 2000, there were no reported cases of measles in the United States.
- Today, only 85% of the world’s infants receive the first vaccine for measles, and even fewer get the second dose.*

Today, just as we are making tremendous gains toward increasing access to immunization globally, a completely different outbreak has occurred. Rampant misinformation spread by a powerful worldwide “anti-vax” movement threatens to undermine the hard-fought public health victories that comprehensive vaccine coverage represent. Vaccine coverage has waned in many populations. New measles outbreaks are making news while placing children and those without vaccination at risk of an entirely preventable and potentially life-threatening disease.

In the case of highly-communicable diseases such as measles, “herd immunity” requires a 95% immunization rate to protect the group. * Even then there is never full immunity. Exposure to the virus from outside the herd puts every non-immunized person at risk. Many children under the age of 12 months, and any child who is immunosuppressed, are at risk of disabilities or death if vaccination rates fall too low.

The re-emergence of measles can be predictably replicated in other childhood illnesses, like rubella, which not only threatens children but also pregnant women and their unborn babies with well-documented consequences that include heart disease, deafness, and brain damage.

Continues overleaf.
In 2019, the United States and 34 countries in the WHO European region still have areas where there are insufficient vaccination rates for herd immunity.*

These latest events underscore why the WHO has recognized "vaccine hesitancy" as one of the world's top 10 global health threats in 2019*, placing it on the same threat level as antimicrobial resistance, Ebola, air pollution and climate change. Novel approaches are needed to reverse this troubling trend, a decline that is just one aspect of what experts warn is a broader erosion of public trust in scientific and governmental efforts to sustain public health.

While the overwhelming majority of parents and physicians continue to support and use childhood vaccines each year, the sustained, global campaign of vaccine misinformation, driven substantially through the social media, has shaken the confidence of increasingly large numbers of parents concerned about their children's well-being. Misinformation threatens the personal and community protection these vaccines offer.

**PRIORITIES FOR ACTION**

**We call upon major search engines and social media organizations to:**
- Develop principles that distinguish “levels of evidence” in the vaccine information they provide so that they can improve identification of disproven/inaccurate false claims about vaccine safety for their users that have led to the return of childhood diseases, just as they do for sexually explicit, violent and threatening messages.
- Include information from robust scientific sources, particularly as unscientific misinformation puts vulnerable babies, cancer patients of all ages and immune compromised individuals at unnecessary and avoidable risk of serious complications, long term disability and potentially of death.

**We call upon governments, policymakers, advocacy groups, educators, and philanthropists to:**
- Support laws that mandate childhood vaccination, when they are likely to improve the public's health, and to support more systematic qualitative and quantitative research on behavioral and social determinants of vaccination integrated with long-term, evidence-based communication programs that will build vaccine literacy in support of these laws.
- Widely disseminate reliable, accurate vaccine information in plain language through mass and social media, and delivered by trusted sources at all levels of society, including celebrities, faith-based leaders and parents.
- Promote “community protection” in public health law and communications to reinforce the equivalence of vaccination with other essential public services like law enforcement, firefighting and sanitation and restore broad societal trust in vaccination as a foundation of public health progress.

**We call upon health professionals and educators across society to:**
- Join forces to correct misleading information on social media and in community settings.
- Counsel parents and children and reassure them about vaccine safety.
- Commit to listening to and understanding the barriers and concerns of parents so that vaccinations and health services can be more health literate, accessible and user-friendly.

**We call upon parents to:**
- Seek information about vaccines from sources that have documented scientific and medical expertise, without agendas based on misinformation and unproven alternatives.

The intent of this Statement is to improve childhood vaccine coverage through expanded public dialogue that will enable individuals, communities and government leaders to better understand the role of vaccines, make more informed choices about their use, and sustain investment in expanded access to these vaccines globally.

*You can find references for all statistics online: salzburgglobal.org/go/statements/vaccinationacceptance
ENDORSEMENTS

**^Scott C. Ratzan MD MPA MA, President, Director, Professor**
Member of International Working Group on Vaccination and Public Health Solutions
For further information, contact Scott at Scott_Ratzan@HKS.Harvard.edu

**^Jonathan Fielding MD MPH MA MBA,** Distinguished Professor of Health Policy and Management, UCLA Fielding School of Public Health; Distinguished Professor of Pediatrics, UCLA David Geffen School of Medicine

**^Ayman El-Mohandes MBBCh MD MPH,** Dean, CUNY Graduate School of Public Health; Dean, CUNY School of Public Health

**^Barry R. Bloom PhD,** Professor of Public Health and Dean Emeritus, Harvard School of Public Health

**^Lawrence O. Gostin JD,** University Professor; Founding O'Neill Chair in Global Health Law; Director, World Health Organization Collaborating Center on National & Global Health Law; Georgetown Law

**^James G. Hodge Jr. JD LL.M,** Professor of Public Health Law and Ethics; Director, Center for Public Health Law and Policy; Arizona State University-Sandra Day O'Connor College of Law

**^Peter Hotez MD PhD FASTMH FAAP,** Dean, National School of Tropical Medicine; Professor, Pediatrics and Molecular & Virology and Microbiology; Co-Head, Section of Pediatric Tropical Medicine; Baylor College of Medicine

**^Ann Kurch PhD RN MPH,** Dean and Professor, Yale University School of Nursing; Chair, Board on Global Health, National Academies of Science, Engineering and Medicine; Chair, Consortium of Universities for Global Health

**^Heidi J Larson PhD,** Professor of Anthropology, Risk and Decision Science; Director, The Vaccine Confidence Project, Dept. Infectious Disease Epidemiology, London School of Hygiene & Tropical Medicine

**^Laura Magaña PhD,** President & CEO, Association of Schools and Programs of Public Health (ASPH)

**^Joanna Nurse BMed MPH MSc MRCCGP FFPh PhD,** Strategic Advisor, InterAction Council; Professor of Planetary Health, Southampton University, UK; Former Head of Health and Education, The Commonwealth

**^Saad B Omer MBBS MPH PhD,** William H. Foege Professor of Global Health and Professor of Epidemiology & Pediatrics, Emory University; Incoming Director, Yale Institute for Global Health

**^Walter A Orenstein MD DSc (Hon),** Professor of Medicine, Pediatrics, Global Health, and Epidemiology, Emory University; Associate Director, Emory Vaccine Center

**^Kenneth Rabin PhD,** Public Affairs Counsel; Special Projects Editor, Journal of Health Communication: International Perspectives

**^Daniel Salmon PhD MPH,** Professor and Director, Institute for Vaccine Safety, John Hopkins School of Public Health

**^Hannah Badland,** RMIT University, Australia

**^Louise Baker-Schuster,** Senior Project Manager, Robert Bosch Stiftung

**^Jane Barratt,** Secretary General, International Federation on Ageing

**^Jeanne d'Arc Bisimwa,** Nutritionist, University Teaching Hospital of Kigali, Rwanda

**^Jaime Burrows,** Director, School of Medicine, Universidad Autónoma de Chile, Former Vice-Minister of Public Health of Chile

**^Michele Barry MD FACP,** Director Of Center for Innovation in Global Health; Past President of American Society of Tropical Medicine and Hygiene; Senior Associate Dean for Global Health, Stanford University, USA.

**^Helen Crisp,** Editor-in-Chief, BMJ Open Quality; Managing Consultant, Quality Improvement in Healthcare, Crisp QI Ltd.

**^Win Diwakar FRCPCH MMedEd,** London Regional Medical Director NHS England & NHS Improvement and Consultant Paediatrician, Birmingham Women and Children’s NHS Foundation Trust

**^Christine Durbak Ph.D.,** Founder and Chair, World Information Transfer, Inc., New York

**^Francis Diem Mwansa,** National EPI Manager, Directorate of Public Health, Ministry of Health, Zambia

**^Susan Edgmans-Levitan PA,** Executive Director, MGH John D. Steeplechase Center for Primary Care Innovation, Boston, MA

**^Laura Gottlieb MD, MPH,** Director, Social Interventions Research and Evaluation Network; Associate Professor, UCSF Department of Family and Community Medicine

**^Hans Gut,** President, Careum, Switzerland

**^Lutz Hager,** Executive Director at IKK Südwest, Germany

**^Emmanuel Higienyi B.PHARM (HONS), MPH (Dist), GradDips,** Pharmacy and Public Health Practitioner, Health Systems Consultant: Director Technical Services, Joint Medical Store, Uganda

**^Ignacio Ibarra JD,** Regional Legal Advisor, Health-Related Law, Office of the Legal Counsel, PAHO/WHO; Specialist in Health Law; Former Professor and Researcher in Public Health Law and Social Protection, Mexico

**^Ruxana Jina,** Senior Technical Advisor - Data Impact Program, Vital Strategies, New York

**^Rebecca Katz PhD MPH,** Associate Professor and Director, Center for Global Health Science and Security, Georgetown University

**^Nidhi Khurana,** Knowledge Translation Specialist, Population Council, India

**^Ilona Kickbusch,** Director of the Global Health Centre at the Graduate Institute of International and Development Studies, Geneva, Switzerland

**^Bob Klaber,** Consultant Paediatrician and Deputy Medical Director, Imperial College Healthcare NHS Trust, UK

**^Vibeke Koushede,** Senior Research Fellow, National Institute of Public Health, University of Southern Denmark

**^Jeffrey Lazarus PhD MHI MA,** A/Research Professor, Barcelona Institute for Global Health (ISGlobal), Hospital Clinic, University of Barcelona and Vice-Chair, EASL International Liver Foundation

**^Fabrice Murtin,** Senior Economist, OECD

**^Annamaria Müller,** Head of Office, Cantonal Department of Health and Welfare, Office for Hospital Services, Berne, Switzerland

**^Ngonya Mwaanga,** Principal Education Officer for Colleges and Universities, Zambian Ministry of General Education

**^Sarunas Narbutas,** Chairman, Youth Cancer Europe

**^K S Nayak,** Senior Nephrologist, Virinchi Hospital; Director, Clinical Research, Vivo Bio, Hyderabad

**^Caroline Phiri Chibawe,** Chief of Party, PMI/PAMO, PATH, Zambia

**^Robert H. Salerno, MSc,** Director, Health Security, DAI Global Health, Bethesda, MD, USA

**^Anna M Shepherd,** President, Regal; Adj Assoc Prof, FACC (Hon) GAICD, Sydney, Australia

**^Clare Shine,** Chief Program Officer and Vice President, Salzburg Global Seminar, Austria and USA

**^David Sinclair,** Director, International Longevity Centre, UK

**^Cat Tully,** Founder and Managing Director, School of International Futures, London

Continues overleaf.
ENDORSEMENTS

Maki Umeda, Research Institute of Nursing Care for People and Community, University of Hyogo, Japan

Sridhar Venkatapuram, Associate Professor, King’s Global Health Institute, King’s College London

Alison Verhoeven BA GDipEd, MLitt, MBA, Chief Executive, Australian Healthcare and Hospitals Association

Sten H. Vermund MD PhD, Anna M.R. Lauder Professor of Public Health and Dean of Yale School of Public Health; Professor of Pediatrics, Yale School of Medicine

Rosemary Viskovic, Strategy Development Manager-Sustainability and Social Development, Rotorua Lakes Council, Rotorua New Zealand

Jennifer Wallace M.Phil, FRSA, Interim Joint CEO/Head of Policy, Carnegie UK Trust

*Member of International Working Group on Vaccination and Public Health Solutions
^For further information, contact Scott at Scott_Ratzan@HKS.Harvard.edu