



# INTERNATIONAL CONVENING ON DIARRHEAL DISEASES SURVEILLANCE

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## International Convening on Diarrheal Disease Surveillance – Agenda Version February 3, 2026

**Background:** With both current and future changes to the global health financing landscape, disease surveillance will need to be increasingly led and financed by countries. Diarrhea surveillance is important because it provides critical evidence needed to prevent deaths; develop, design, and target interventions; mobilize resources; and strengthen health systems, particularly for young children and vulnerable populations. This convening brings together leading researchers and surveillance practitioners to chart a path forward towards sustainable diarrhea surveillance.

### Meeting Objectives:

- Review empirical and modeled evidence on diarrheal disease burden to inform priority-setting for surveillance investments.
- Compare surveillance models, diagnostic strategies, and data sources to determine which approaches best support country decision-making and programmatic action.
- Reach alignment on priority pathogens and characteristics of the ideal diagnostic platform for diarrheal surveillance
- Consider surveillance use cases and describe what is needed to best support prevention, treatment, and policy.
- Generate concrete recommendations for integrating diarrheal disease surveillance into existing national systems, including options for financing, governance, and long-term sustainability.

### Discussion Questions for Review and Consideration During Convening:

- How important are diarrheal diseases today as a cause of under-5 mortality, severe illness, and longer-term sequelae?
- What should a diarrheal surveillance system accomplish? What policy decisions should diarrheal disease surveillance primarily support at country level, and which use cases are essential versus optional?
- What has driven successful country ownership and leadership of surveillance systems—either for diarrheal disease or other conditions—and what factors most commonly undermine sustainability?
- How can diarrheal surveillance be integrated into existing national surveillance platforms rather than operating as a stand-alone or donor-driven system?
- What new approaches or technologies could move the needle for acceptability/affordability of country-led diarrhea surveillance?
- What pathogens are essential for inclusion in diarrheal surveillance, how should they ideally be detected, and how should this be translated into estimates of diarrhea etiology?
- What diagnostic approaches are “good enough” for sustainable surveillance, and which elements are primarily research-oriented?

### Expected Meeting Outputs (tentative):

- Global surveillance diagnostic target product profile + pathogen list
- Description of diagnostic needs and reconciliation of tradeoffs with different diagnostic approaches/platforms
- Prioritization of diarrhea surveillance use cases (must-have vs. nice-to-have)
- Minimum viable product for diarrhea surveillance and consideration of design elements needed to achieve it
- Opportunities for integration of diarrhea surveillance into national programs, including options for financing and key steps needed to mainstream diarrhea surveillance into national surveillance programs

Meeting report manuscript documenting critical opportunities and challenges for sustainable disease surveillance (writing group + group authorship)

Time	Topic	Presentation	Speaker
8:30-8:45	<b>Welcome</b>	Welcome / Introduction	<b>Jacob John Gagandeep Kang</b>
8:45-9:00	<b>Keynote Address</b>	Pan-India Syndromic Surveillance of Acute Diarrhoeal Disease through ICMR/DHR VRDL & IRDL Network	<b>Nivedita Gupta</b>
9:00-9:15	<b>Inaugural Address</b>	Importance of surveillance and why countries should invest in it.	<b>Rakesh Gupta (remote)</b>
<b>Session objective:</b> Highlight key findings from landmark etiology studies			
9:15-10:30	<b>Diarrhea etiology, incidence, and severity</b>  <b>Research studies</b> <b>Facilitator: Eric Houpt</b>	Etiology and Burden of Diarrheal Disease in Early Life: Multisite Findings from the MAL-ED Study	<b>Venkat Raghava Mohan</b>
		Uncovering the etiology and outcomes of moderate-to-severe diarrhea in low resource settings: the GEMS and VIDA studies	<b>Karen Kotloff</b>
		Diarrhea etiology and severity from ABCD and EFGH and implications for future surveillance	<b>Patricia Pavlinac</b>
10:30-11:00	<b>Coffee Break</b>		

		<b>Session objective:</b> Showcase examples of country-led diarrhea surveillance	
11:00-12:30	<b>Diarrhea etiology, incidence, and severity Surveillance</b> Facilitator: Jason Mwenda	The Global Pediatric Diarrhea Surveillance (GPDS) Network 2017-2024  National diarrhea surveillance in South Africa  National diarrhea surveillance in Bangladesh  Diarrhea surveillance in Southeast Asia	<b>James Platts-Mills</b>  <b>Nicola Page</b>  <b>Tahmeed Ahmed</b>  <b>Watcharapong Kumla (remote)</b>
12:30-13:15		<b>Lunch</b>	
		<b>Session objective:</b> Review empiric data on diarrhea mortality, both as an overall cause of mortality as well as etiology-specific mortality	
13:15-14:15	<b>Diarrhea mortality</b> Facilitator: Robert Black	Diarrhea-Attributable U5 Mortality in LMICs: Preliminary Systematic Review Findings  Contribution of Diarrhoeal Disease to Mortality in Resource-Poor Settings of Sub-Saharan Africa and South Asia: Findings from Verbal Autopsies in Selected Health and Socio-Demographic Surveillance Systems  Use of minimally invasive tissue sampling to quantify and understand the contribution of diarrheal diseases and associated co-infections in children	<b>Sofia Donovan</b>  <b>Chodziwadziwa Kabudula (remote)</b>  <b>Portia Mutevedzi</b>

	<p><b>Session objective:</b> Compare/contrast leading global burden estimates for diarrhea mortality (overall / pathogen-specific); identify key areas of uncertainty and data gaps that would be impactful on estimates</p>					
14:15-15:45	<b>Global burden: modeled estimates</b> Facilitator: John Crump	Global burden of diarrheal diseases and pathogens, 1990–2023: results from the Global Burden of Disease Study 2023	Hmwe Kyu (remote)			
		Global and Regional Causes of Deaths from Diarrhea in Children Less than 5 Years, 2000-2021	Robert Black			
		GPDS: incorporating access to care and etiology-specific case fatality rates into mortality estimates	Maria Garcia Quesada			
		Updated Estimates of the Global, Regional and National Burden, and Etiology of Diarrheal Diseases Transmissible via Food: A Systematic Review and Meta-Analytical Modelling Study for the World Health Organization	Margaret Kosek			
		Modelling and projecting climate impacts: The Plan-EO and SPRINGS projects	Josh Colston			
15:45-16:00	<b>Coffee Break</b>					
16:00-17:30	<b>Workshop 1 - 3 parallel tracks</b>					
	<b>1a. Co-infections</b>	<b>1b. Adenovirus</b>	<b>1c. Special Populations</b>			
17:30	<b>End of Day 1</b>					
19:00	<b>Welcome Dinner</b>					

Time	Topic	Presentation	Speaker	
	<b>Session objective:</b> Highlight what is known/not known about non-acute diarrhea morbidity			
8:00-9:15	<b>Broader consequences of diarrheal diseases</b>  Facilitator: <b>Alejandro Cravioto</b>	Impact of diarrhea on linear growth faltering: evidence across Gates-funded studies	<b>Elizabeth McQuade</b>	
		The gut of the problem: diarrhea and malnutrition in children	<b>Temsunaro Rongsen</b>	
		EED - does it matter?	<b>Paul Kelly</b>	
		Diarrhea and Cognitive Outcomes: Evidence from Indian Birth Cohorts	<b>Beena Koshy</b>	
9:15-11:00	<b>Diagnostics</b>  Facilitator: <b>Senjuti Saha</b>	<b>Session objective:</b> Showcase key learnings from molecular dx and look ahead to new approaches. Set the stage for Day 3 workshop.		
		Overview of Molecular Diagnostics and Diarrhea Etiology	<b>Eric Houpt</b>	
		Redefining feasibility in diarrheal surveillance: long term nucleic acids stability with simple, low-cost stool preservation	<b>Amanda Debes</b>	
		Diagnostic Utility of Fecal Inflammatory Biomarkers and their relevance for Shigellosis Case Identification in Surveillance Systems	<b>Billy Ogwel</b>	
		Landscape review of new diarrhea surveillance diagnostics	<b>Keerthi Boddupally</b>	

11:00-11:30	<b>Coffee Break</b>				
	<b>Session objective:</b> Highlight key AMR threats for diarrheal diseases and how we better monitor AMR / include in diarrheal surveillance initiatives. Why does AMR matter?				
11:30-13:00	<b>AMR</b> Facilitator: Iruka Okeke	Antimicrobial Resistance in South Asia: The Growing Threat from Diarrheal Pathogens and the Surveillance Challenge	Balaji Veeraraghavan		
		The Global AMR surveillance system (GLASS)	Silvia Bertagnolio		
		Antibiotic resistant <i>Shigella</i> and <i>E.coli</i> -Lessons learned from EFGH and ABCD	Patricia Pavlinac		
		<b>Panel Discussion</b>			
13:00-14:00	<b>Lunch</b>				
	<b>Workshop 2 - 2 Parallel Tracks</b>				
14:00-15:30	2a. Vaccines	2b. Non-clinical approaches to surveillance			
15:30-16:00	<b>Coffee Break</b>				
16:00-17:30	<b>Plenary Report Workshops 1 &amp; 2</b> 10 minutes report out + 5 minutes discussion per workshop				
17:30	<b>End of Day 2</b>				

Time	Topic	Presentation	Speaker
	<b>Session objective:</b> Set stage for Workshop 3. Identify hallmarks of successful surveillance networks with country ownership, and consider how they are applicable (or not) to diarrheal disease surveillance.		
8:00 - 9:45	<b>Building sustainable surveillance for the future</b> Facilitator: <b>Rebecca Grais</b>	Lessons learned from the Global Rotavirus Surveillance Network	<b>Shilpa Iyer</b>
		Lessons learned from other WHO surveillance programs	<b>Mick Mulders</b>
		Lessons learned from Integrated Disease surveillance initiatives	<b>Goitom Weldegebriel</b>
		Re-imagining the future of Global Pediatric Diarrhoea Surveillance: feedback from a stakeholder consultation	<b>Thomas Cherian</b>
		Panel Discussion	
9:45-11:00	<b>Workshop 3 - Building sustainable surveillance for the future</b>	Workshop to discuss as small groups:	Facilitators:
		Diagnostics	<b>Keerthi Boddupally and Chitra Pattabiraman</b>
		Design	<b>Thomas Cherian and Kirsten Vannice</b>
		Finance and operation	<b>Arindam Ray and Sarang Deo</b>

11:00-11:30	<b>Coffee Break</b>		
11:30-12:30	<b>Workshop 3 - Plenary Reports</b>		
12:30-12:50	<b>Closing Keynote</b>	Closing Keynote	<b>Thomas Cherian</b>
12:50-13:00	<b>Close of Meeting</b>	Meeting Closure	<b>Duncan Steele</b>
13:00-14:00	<b>Lunch</b>		
14:00	<b>End of Day 3</b>		

# Workshop Topics

	<b>Workshop Topic</b>	<b>Presentation</b>	<b>Speakers</b>	<b>Questions for the workshop</b>
1a	<b>Co-infections</b> Facilitator: <b>James Platts-Mills</b>	Definitions, diagnostics, and attribution	James Platts-Mills	What is a co-infection? How common are they? Are they clinically relevant, and do some matter more than others? Do they need to be considered for vaccine trials?
		Clinical consequences of co-infections & implications for vaccine trial endpoints	Elizabeth McQuade	
1b	<b>Adenovirus</b> Facilitator: <b>Firdausi Qadri</b>	Burden of adenovirus-associated diarrheal hospitalizations in Indian children under 5 in the post rotavirus vaccine era	Tintu Varghese	How much does adenovirus contribute to diarrhea morbidity? Mortality? How important are non-enteric adenoviruses? What research is needed to better clarify the role/importance of adenovirus?
		Severity of adenovirus and potential role of sequential infections	Maria Garcia Quesada	
		Role of non-enteric adenoviruses	Benjamin Lee	
		Adenovirus immunity and vaccine prospects	Jen Hendrick (remote)	
1c	<b>Special populations</b> Facilitator: <b>Richard Omore</b>	Diarrhea burden in older adults in Cameroon: A case control study using low cost specimen preservation	Jerome Ateudjieu	How can we capture diarrhea burden and etiology in special populations? What is the evidence it is variable?
		Adult diarrhea - Peru	Claudio Lanata	
		HIV	Niyi Bejide	
		Can traveller-derived genomic data strengthen enteric surveillance in LMICs?	Kate Baker	

# Workshop Topics

2a	<b>Vaccines</b> Facilitator: <b>Miren Iturriza</b>	New vaccine timelines	<b>Miren Iturriza</b>	What diarrhea surveillance do we need in place to support vaccines (pathogen prioritization, product development, testing, policy, post-introduction evaluation). How long after a vaccine is introduced (e.g. rotavirus vaccine) should surveillance continue?
		Oral vaccine performance for rotavirus and other enteric diseases	<b>Carl Kirkwood</b>	
		Vaccines and indirect protection	<b>John Clemens</b>	
		Vaccine impact on Antimicrobial usage – lessons learned from Typhoid conjugate vaccines	<b>James Meiring</b>	
2b	<b>Nonclinical approaches to diarrhea surveillance</b> Facilitator: <b>Supriya Kumar</b>	WES in India	<b>Labanya Mukhopadhyay</b>	In what situation/context would you use non-clinical approaches to make decisions regarding diarrheal disease interventions?  What questions would you <u>not</u> use non-clinical approaches to address?  Are there any pathogen-specific nuances to consider?
		Sewage surveillance for enteric diseases form Dhaka, Bangladesh study	<b>Mami Taniuchi</b>	
		Lessons from Malawi: Can Environmental Surveillance Guide Shigella Vaccine Planning?	<b>Jen Cornick (remote)</b>	
		Advancing diarrheal disease surveillance through multiplex serologic approaches	<b>Richelle Charles</b>	

## List of Participants

Name	Organisation	Email Address
Aarti Singh	World Health Organization	singhaa@who.int
Alejandro Cravioto	Facultad de Medicina, Universidad Nacional Autónoma de México	dracravioto@hotmail.com
Amanda K Debes	Johns Hopkins Bloomberg School of Public Health	adebes1@jhu.edu
Amrita Sekhar	Gates Foundation	amrita.sekhar@gatesfoundation.org
Antara Sinha	GAVI	asinha@gavi.org
Arindam Ray	Gates Foundation	arindam.ray@gatesfoundation.org
Ashish Bavdekar	KEM Hospital, Pune	A.bavdekar@kemhrcpune.org
Balaji Veeraraghavan	Christian Medical College Vellore	vbalaji@cmcvellore.ac.in
Beena Koshy	Christian Medical College Vellore	beenakurien@cmcvellore.ac.in
Bejide Oyeniyi Stephen	Augustine University, ILARA - EPE, Lagos, Nigeria	niyibejide7@gmail.com
Ben Lopman	Emory University	blopman@emory.edu
Benjamin Lee	University of Vermont	blee7@uvm.edu
Bhupendra Tripathi	Gates Foundation	bhupendra.tripathi@gatesfoundation.org
Billy Ogwel	Kenya Medical Research Institute	ogwelbill@gmail.com
Bireshwar Sinha	Society for Applied Studies, New Delhi	bireshwar.sinha@sas.org.in
Carl Kirkwood	Advancing Enterics	ckirkwood9764@gmail.com
Carolina Danovaro	World Health Organization	danovaroc@who.int
Chitra Pattabiraman	Gates Foundation	chitra.pattabiraman@gatesfoundation.org
Claudio F Lanata	Instituto de Investigacion Nutricional, Lima, Peru.	clanata@iin.sld.pe
Daniel Leung	University of Utah	daniel.leung@utah.edu
Denise Chitsondzo Langa	Instituto Nacional de Saude, Mozambique	denise.langa@ins.gov.mz
Dilip Abraham	Christian Medical College Vellore	dilip.abraham@cmcvellore.ac.in

## List of Participants

<b>Dinesh Kumar</b>	NTAGI Secretariat	dr.dinesh999@yahoo.com
<b>Duncan Steele</b>	Gates Foundation	duncan.steele@gatesfoundation.org
<b>Elizabeth Rogawski McQuade</b>	Emory University	erogaws@emory.edu
<b>Eric Houpt</b>	University of Virginia	erh6k@virginia.edu
<b>Fahima Chowdhury</b>	icddrb	fchowdhury@icddrb.org
<b>Firdausi Qadri</b>	icddrb	fqadri@icddrb.org
<b>Francis Ng'ang'a Gicheru</b>	Ministry Of Health, Kenya	ngangafng122@gmail.com
<b>Gagandeep Kang</b>	Gates Foundation	gagandeep.kang@gatesfoundation.org
<b>Geoff Preidis</b>	Baylor College of Medicine & Texas Children's Hospital	geoffrey.preidis@bcm.edu
<b>George E Armah</b>	NMIMR, University of Ghana	garmah@noguchi.ug.edu.gh
<b>Goitom Weldegebriel</b>	World Health Organization	weldegebrielg@who.int
<b>Guru Rajesh Jammy</b>	World Bank	gjammy@worldbank.org
<b>Hannah Miraculine K</b>	Christian Medical College Vellore	hannah.miraculine@cmcvellore.ac.in
<b>Himanshu Chauhan</b>	NCDC, MoHFW	Himanshu.chauhan@nic.in
<b>Iruka N Okeke</b>	University of Ibadan	iruka.n.okeke@gmail.com
<b>Jacob John</b>	Christian Medical College Vellore	jebu@cmcvellore.ac.in
<b>James Meiring</b>	University of Liverpool	james.meiring@liverpool.ac.uk
<b>James Platts-Mills</b>	University of Virginia	jp5t@uvahealth.org
<b>Jason Mathiu Mwenda</b>	Sefako Makgatho Health Sciences University	jason.mwenda23@gmail.com
<b>Jayaprakash Muliyil</b>	Christian Medical College Vellore	jpmuliyil@gmail.com
<b>Jerome Ateudjieu</b>	M.A. SANTE	jateudjieu@masante-cam.org
<b>Jillian Gauld</b>	Gates Foundation	Jillian.Gauld@gatesfoundation.org
<b>John A Crump</b>	University of Otago	john.crump@otago.ac.nz

## List of Participants

<b>Josh Colston</b>	University of Virginia School of Medicine	josh.colston@virginia.edu
<b>John Clemens</b>	International Vaccine Institute	john.clemens@ivi.int
<b>Karen Kotloff</b>	University of Maryland Baltimore	kkotloff@som.umaryland.edu
<b>Kate Baker</b>	University of Cambridge	kb827@cam.ac.uk
<b>Keerthi Boddupally</b>	Gates Foundation	keerthi.boddupally@gatesfoundation.org
<b>Kirsten Vannice</b>	Gates Foundation	kirsten.vannice@gatesfoundation.org
<b>Labanya Mukhopadhyay</b>	Indian Council of Medical Research	labanya.m@icmr.gov.in
<b>Lucky Sangal</b>	World Health Organization	sangallu@who.int
<b>Mami Taniuchi</b>	University of Virginia	mt2f@virginia.edu
<b>Manoj Murhekar</b>	ICMR National Institute of Epidemiology	mmurhekar@gmail.com
<b>Margaret N Kosek</b>	University of Virginia	mnk2n@virginia.edu
<b>Maria Garcia Quesada</b>	Emory University	maria.garcia.quesada@emory.edu
<b>Md Taufiqur Rahman Bhuiyan</b>	icddr,b	taufiqur@icddrb.org
<b>Megan Carey</b>	MMGH & Amsterdam Institute of Global Health & Development	careym@mmpglobal.org
<b>Mick Mulders</b>	World Health Organization	muldersm@who.int
<b>Miren Iturriza</b>	Gates Foundation	miren.iturriza@gatesfoundation.org
<b>Naro Chandola</b>	Society for Applied Studies, New Delhi	naro@sas.org.in
<b>Nick Grassly</b>	Imperial College London	n.grassly@imperial.ac.uk
<b>Nicola Page</b>	National Institute for Communicable Diseases	nicolap@nicd.ac.za
<b>Nimi Thomas</b>	Christian Medical College Vellore	nimi.elizabeth@cmcvellore.ac.in
<b>Nivedita Gupta</b>	Indian Council of Medical Research	guptanivedita.hq@icmr.gov.in
<b>Oliver Mweso</b>	Zambia National Public Health Institute	oli.mweso@yahoo.com

## List of Participants

<b>Patty Pavlinac</b>	University of Washington Global Center for Women, Adolescent, and Child Health (GWACH)	ppav@uw.edu
<b>Paul Kelly</b>	Queen Mary University of London	m.p.kelly@qmul.ac.uk
<b>Portia C Mutevedzi</b>	CHAMPS	pmutevedzi@taskforce.org
<b>Rajlakshmi Viswanathan</b>	ICMR-National Institute of Virology, Pune	vishwanathan@nic.in
<b>Rakesh Aggarwal</b>	Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, India	aggarwal.ra@gmail.com
<b>Rebecca F Grais</b>	Pasteur Network	rebecca.grais@pasteur.fr
<b>Richard Omoré</b>	Kenya Medical Research Institute	omorerichard@gmail.com
<b>Richelle Charles</b>	Massachusetts General Hospital, Harvard	rcharles@mgh.harvard.edu
<b>Robert E Black</b>	Johns Hopkins Bloomberg School of Public Health	rblack1@jhu.edu
<b>Roberta Pastore</b>	World Health Organization	pastorero@who.int
<b>Sarah Sunil Joseph</b>	Christian Medical College Vellore	sarahsunil2019@gmail.com
<b>Sarang Deo</b>	Indian School of Business	sarang_deo@isb.edu
<b>Sashi Ramani</b>	Baylor College of Medicine	ramani@bcm.edu
<b>Sayera Banu</b>	icddr,b	sbanu@icddrb.org
<b>Senjuti Saha</b>	Child Health Research Foundation	senjutisaha@chrfbd.org
<b>Shilpa Iyer</b>	World Health Organization	iyers@who.int
<b>Shinjini Bhatnagar</b>	Indian Council of Medical Research	shinjini.bhatnagar@gmail.com
<b>Silvia Bertagnolio</b>	World Health Organization	bertagnolios@who.int
<b>Sofia Donovan</b>	University of Washington	sofdono@uw.edu
<b>Stephen Baker</b>	A*Star	Stephen_Baker@a-star.edu.sg
<b>Subhra Chakraborty</b>	Johns Hopkins Bloomberg School of Public Health	schakr11@jhu.edu
<b>Suman Kanungo</b>	ICMR-RMRCNE, Dibrugarh	sumankanungo@gmail.com

## List of Participants

Supriya Kumar	Gates Foundation	Supriya.Kumar@gatesfoundation.org
Suresh Kumar Dalpath	William J Clinton Foundation	sdalpath@wjcf.in
Tahmeed Ahmed	icddrb	tahmeed@icddrb.org
Thomas Cherian	MMGH Consulting	cheriant@mmglobalhealth.org
Tintu Varghese	Christian Medical College Vellore	tintu.varghese@cmcvellore.ac.in
Tondo Opute Emmanuel Njambe	World Health Organization	emmanuelt@who.int
Varja Grabovac	World Health Organization	grabovacv@who.int
Venkat Mohan	Christian Medical College Vellore	venkat@cmcvellore.ac.in
Wendy Walker	Gates Foundation	wendy.walker@gatesfoundation.org

**For Any Queries Please Contact Hallmark Events**

**Accommodation and Local Transport**

**Jesin: +91 96112 88068 | Gurudas M: +91 98453 81612**

**General Queries**

**Seshadri.Pa: +91 98456 71462**

**Shabeena: +91 98808 80682**

