



IWOPS

4th INTERNATIONAL WORKSHOP
on PARTICIPATORY SURVEILLANCE

FOREWORD

Ending Pandemics believes that communities engaged in direct reporting of symptoms of illness or adverse events are earlier to detect and faster to respond to any emerging health crisis. This approach is known as **participatory surveillance—the bidirectional receiving and transmitting of data for action through direct engagement of the target population**. To foster collaboration for this approach around the globe, Ending Pandemics established the International Workshops on Participatory Surveillance (IWOPS). IWOPS I, II & III were held in 2012 (USA), 2013 (Netherlands) and 2016 (Australia), respectively.

IWOPS IV held in Cambodia in 2022, focused on establishing One Health participatory surveillance systems as a standard of practice for use in every country. Ending Pandemics convened experts from around the world to share experiences and best practices from exemplary systems directly engaging communities in human, animal and environmental health. Participants worked together to identify key data parameters and data standards for any One Health participatory surveillance system to permit greater data integration and information sharing among systems across the globe.

We are extremely grateful for the energy and enthusiasm of the participants who gathered from around the world to help us explore new applications of participatory surveillance and expand this approach.

Mark Smolinski
President

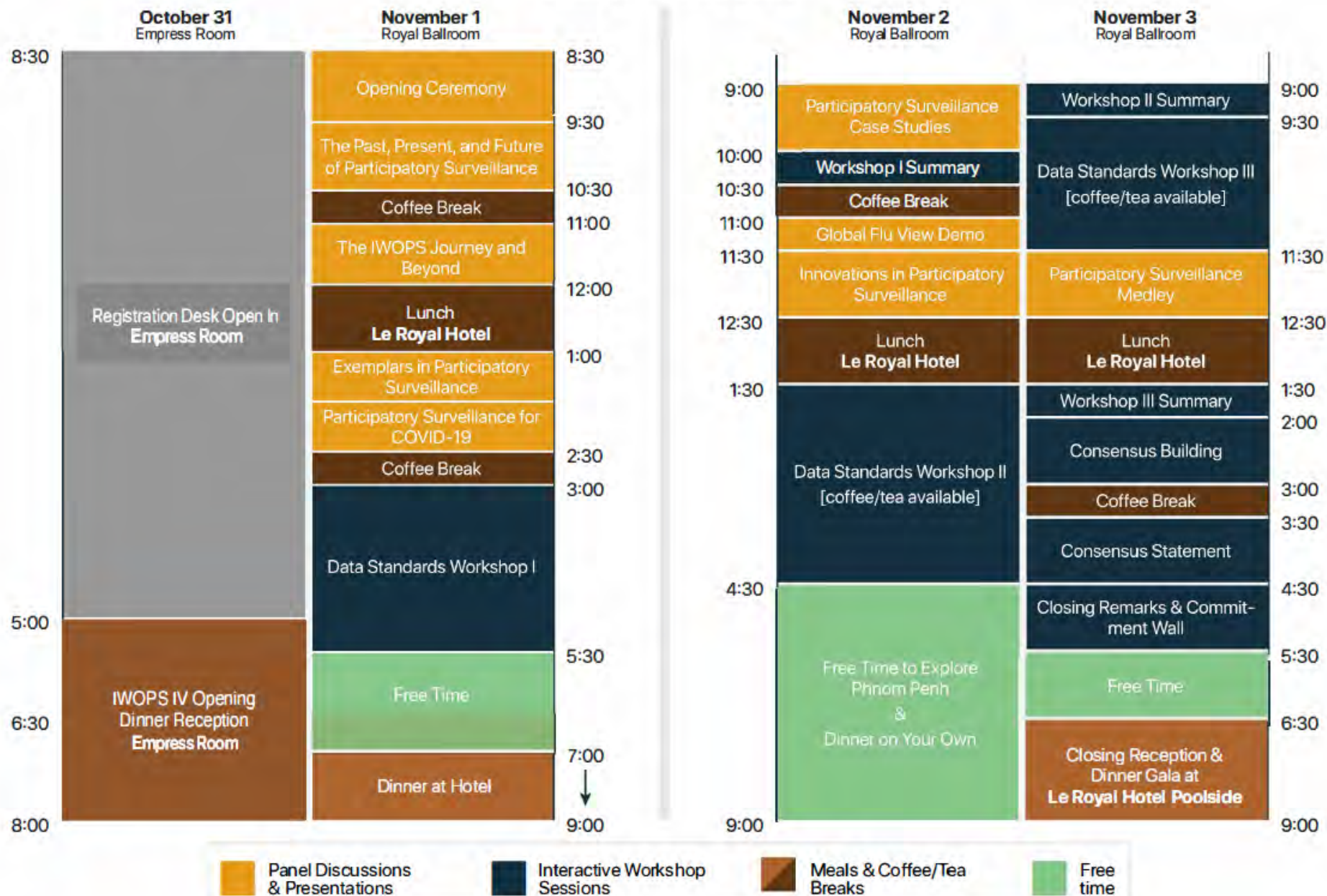
Nomita Divi
Executive Director



4th International Workshop On Participatory Surveillance

Le Royal Hotel, Phnom Penh, Cambodia

October 31 – November 3, 2022



IWOPS

4th International Workshop on
Participatory Surveillance

NOVEMBER 1, 2022

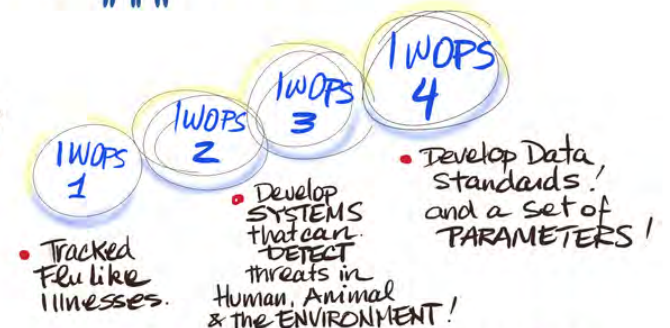


Welcome!

To our **ONE HEALTH** Workshop!
in Phnom Penh, Cambodia



MARK SMOLINSKI
PRESIDENT, ENDING PANDEMICS



A ONE HEALTH SYSTEM ACROSS ALL SECTORS.

BIDIRECTIONAL
A TRUSTED SYSTEM.
**ENGAGING COMMUNITY
GIVE BACK TO COMMUNITY**

Our Visiting DIGNITARIES:

- HENG MORANY
GDAH, CAMBODIA
- SORN SAN
GDAH, CAMBODIA
- LY SOVANN
CAMBODIA CDC/
MINISTRY OF HEALTH

We need to DEVELOP A
SYSTEM that is SIMPLE
and EFFECTIVE

SIMPLE PROCESSES

**STOP
BUREAUCRACY!**

SUPPORTING
EARLY DETECTION
IN:

- Asia
- Middle East
- China

**EARLY
DETECTION!
AND
RESPONSE!**



- WHAT'S APPROPRIATE TO ASK
THE PUBLIC?
- 8 GROUPS WILL
DESIGN THE SYSTEM.

**IT
Technology**



**2 PANEL DISCUSSIONS WILL BE
LED BY:**

• MARK SMOLINSKI
PRESIDENT, ENDING PANDEMICS



• NOMITA DIVI
EXECUTIVE DIRECTOR, ENDING PANDEMICS



DEFINITION:

♦ PARTICIPATORY SURVEILLANCE

IS THE BIDIRECTIONAL PROCESS
OF RECEIVING AND TRANSMITTING
DATA FOR ACTION THROUGH
DIRECT ENGAGEMENT OF
THE TARGET POPULATION.



OPENING REMARKS

DR. HENG MORANY

GENERAL DIRECTORATE OF ANIMAL HEALTH & PRODUCTION



DR. LY SOVANN

MINISTRY OF HEALTH, CCDC



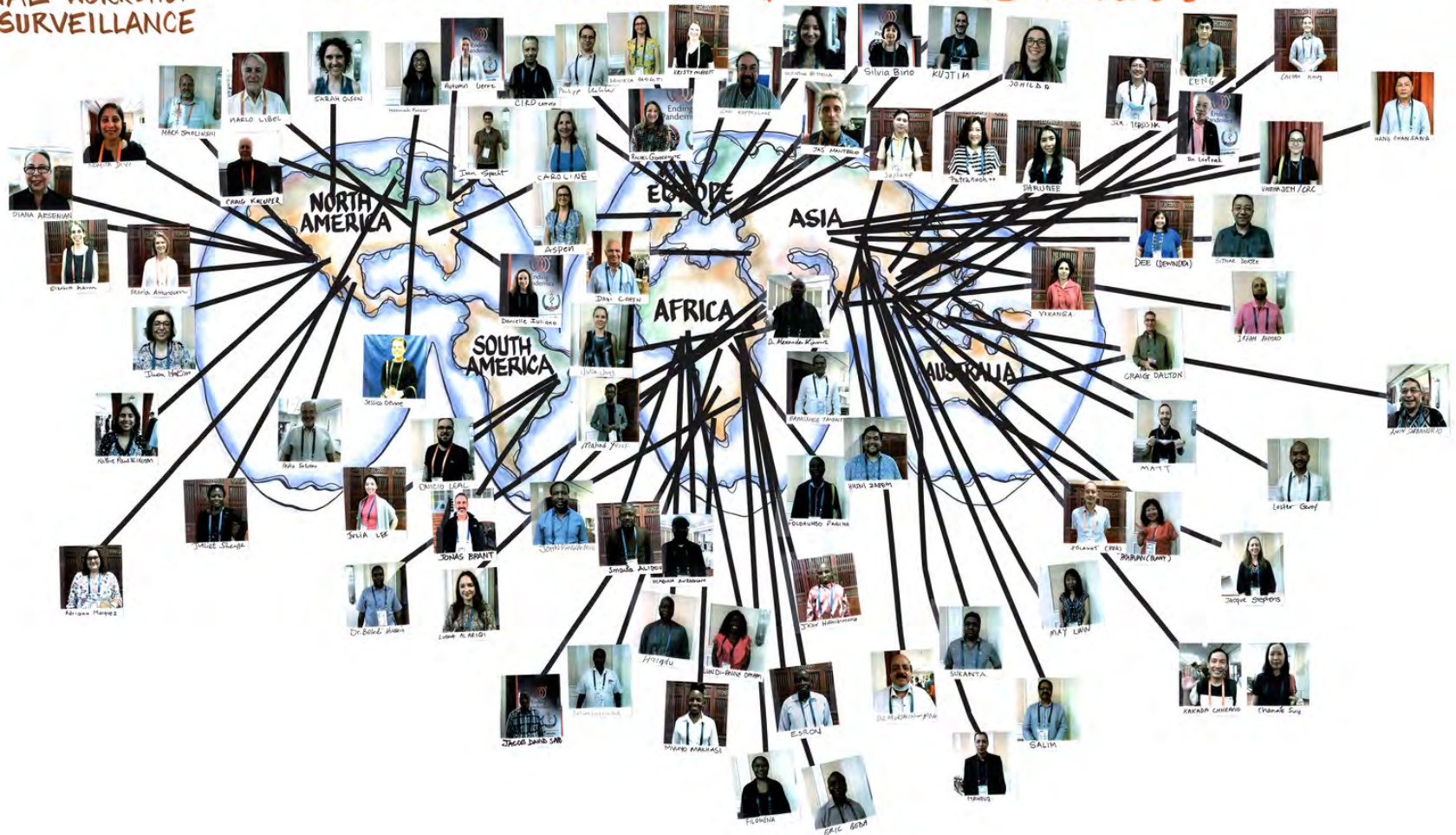


LAUNCH OF THE ONE HEALTH PARTICIPATORY SURVEILLANCE MAP

BY ENDING PANDEMICS

IWOPS
4th INTERNATIONAL WORKSHOP
on PARTICIPATORY SURVEILLANCE

IWOPS CHAMPIONS ACROSS the WORLD!



100 PARTICIPANTS FROM 35 COUNTRIES

PAST, PRESENT, AND FUTURE OF PARTICIPATORY SURVEILLANCE PANEL



MARK SMOLINSKI, JEFFREY MARINER, LERTRAK SRIKITJAKARN, MAY O. LWIN

The PAST, PRESENT, AND FUTURE OF PARTICIPATORY SURVEILLANCE

Dr. Jeff Mariner

PROFESSOR
CUMMINGS SCHOOL OF VETERINARY
MEDICINE @ TUFTS UNIV.

1990s. SocioEconomic
Vaccines. Problem.

What was
the Farmer's
KNOWLEDGE?

Intelligence

Surveillance in
Different Communities.

LEARNING from
the Farmers was
IMPORTANT...
it was not just about
the DATA.

Place
Ourselves
in their System.

Participatory
Analysis.

Rinder PEST DISEASE

It's not about making
A SYSTEM - it's about
LEARNING from the Community.

Health Departments were
PATS?? MIScommunicating about PATS
INFO.

Encourage
People to
Talk about it

this disease
didn't KILL...

Elders.
Water Expert

Learn from
the DATA

Learning
New
Insights.

Think
Beyond
Data Bases!

Dr. Lertrak SRIKITJAKARN

PODD Center, THAILAND

Empower
COMMUNITIES
TO TRACK & RESPOND
QUICKLY!

Develop the TECHNOLOGY
that will allow Community to
ENGAGE, DETECT &
STOP OUTBREAKS.

USE
the
System
to COMMUNICATE
Maupn.

CREATE
INCENTIVES
FOR COMMUNITIES
TO USE THE SYSTEMS.

SUPPORT COMMUNITIES
TO CONTAIN THE OUTBREAK!

BUILD
LIFE
TRUST

LET COMMUNITY
PARTICIPATE in the
DECISION MAKING-

1. Create the successful Model.
2. Use Authority @ the Provincial level.
3. Educate Community How to Use the System

Dr. May Lwin

PRESIDENT'S CHAIR PROFESSOR
NANYANG TECH. UNIV.

Using Technology to
Make a Difference!

TRACKING
Vectors.

ADAPT
QUICKLY

Denge
Mosquito.
Main in URBAN
Environments.

Look at the GAPS

We travelled to Regional
Countries (10 years ago)

Mobile was
on the Rise!!

Mosquitoes!

COMMUNITY
OWNED
SYSTEMS!

Community Governments

Health
Authorities.

Mobuzz +

Technologists/Developers
from different countries coming
Together

Creating
IDEAS

Create
Prototypes.

EPHACK
Sri Lanka.

Mainstream Public Health Issues.
Ministry of the Environment knows that
it's IMPORTANT to UNDERSTAND
HUMAN BEHAVIOR.



- How do we Manage **FEAR** in the Public about **SURVEILLANCE** in Authoritarian countries?
 → Ask the Community what **DO they need??**
 → Agro Chemicals in the Field?
 Do my Chickens Have a Disease?!!

- We must have **HIGH ETHICAL STANDARDS**.
 How will the DATA be used?
COMMUNICATION.
 ↳ Issues → How it's Communicated to the Public - is **IMPORTANT.**
- Using a "ONE HEALTH" approach - why do People need to **UNDERSTAND**?
 → How the information will be used?
 → Fear of **Reporting** - because they want to **KEEP** their Animals.
 → Destroying their Animals will not **Solve** the Problem.
 → **YOU HAVE TO BUILD TRUST.**

BUILDING IN RESPONSE

I will Report it... but what Happens Next?
 Will something Be done about the Issue??

- Flexible Systems are needed to deal with the **GAPS** in the **STRUCTURED SYSTEMS**.

- the Data will be for all!

- Define **COMMUNITY BASED & COMMUNITY PROGRAM & PARTICIPATION**
- Govt & Health Authorities.
- Community Leaders.
- Community of Individuals.
- Schools

Provide Educational Materials for Children and their Families.

OUTREACH

- **FINANCIAL compensation**
 Pay the Villagers to help contain the Outbreak.
 In Conventional Surveillance there is **TRUST** bet. Health Workers and Community.

- **CONFIDENTIALITY** within the Communities is **IMPORTANT.**
 → Important in **HOW** the **SYSTEM** is Designed.

- **SENSE of Community** and **HOW** it affects an Individual's Actions.
 Destroy my Chickens so all others are not destroyed in the village.

- **TRAINING FRONT line STAFF** -
 • Health Communication tools
 • Materials.
 • Disseminate Information

- Participatory Surveillance...

- How do we support the people (@ the local level) that report to the system??

BIDIRECTIONALITY

- What do we **GIVE BACK** to the Community?

- It's good to start w/a **Community Org.** → Start **SMALL** and then **GO LARGE** w/the whole **COMMUNITY.**
- Symptoms??
- It's ease to **PILOT TEST.**
- Surveys.
- Flu Tech.
- Hospital.
- A of Infectious Disease Keeping Safe because employees were exposed to disease.



- Matrix
- Tools
- Exercises
- Communities can Reconstruct the **DATA**

- Train People How to use the **DASHBOARD**
- Decide on a "REPORTING PROCESS"

- Important → **Timely Response**
- How can the Company maintain the Reporting within the System.

Participatory ACTION!



THE IWOPS JOURNEY AND BEYOND PANEL



NOMITA DIVI, CARRIE REED, CARL KOPPESCHAAR, CRAIG DALTON, DANIELA PAOLOTTI



The IWOPS JOURNEY & BEYOND!



IWOPS 1 Explore the Perception of the Utility of Participatory Surveillance.

CARRIE REED
CENTERS FOR DISEASE CONTROL & PREVENTION, USA

DATA → Provides VALUE

- Do we see anything DIFFERENT??
- UNUSUAL??
- Consistent Increase in Deaths - Hospitalization...

OUTBREAKS Near ME DATA

- What is Happening that we didn't SEE?
- What are the QUESTIONS that we need TO ASK?
- Information from the System -
 - How are People accessing Testing?
 - What reasons for the testing?

• How can DATA be used?

IWOPS 2 How is the DATA used?

DATA SHARING Agreement

27,000 Participants

Transmitted Disease spread quickly

During COVID Pandemic
People felt ISOLATED DEPRESSION

We sent out questionnaires on a weekly basis.

CARL KOPPESSCHAAR
Grote Grijpen Corona Meeting, Netherlands.

BUILDING COMMUNITY

SOCIALIZED Health!

IWOPS 3 - In Australia

What does it take to bring others on board??

CRAIG DALTON
FLUTRACKING Australia.

DANIELA PAOLOTTI
ISI FOUNDATION, ITALY.

It's a CONTINUOUS LEARNING PROCESS.

Many EXPERIMENTS!

Learning

*Provide Links so People can PARTICIPATE!



Utilize the INFORMATION ... FOR ACTION!

TESTING Questions ARE IMPORTANT

Resources ALLOCATION ??

REALITY CHECK
For the General Public.

"Vaccines" is always behind the REALITY.

Seeking Medical CARE

No access TO Places To get Tested.

Home Testing

Where do People SEEK CARE?

How do we Improve Access to get CARE?



INWOPS JOURNEY CONT'D...

11.1.22

In Pandemic Situations -

- What are the differences between People who sign up and report and those who don't.

DIVERSE GROUP of Participants w/ various Behaviors

- FLU
- CORONA

REPORTING Just for FUN?



Report on all Diseases!

Dutch Population



Ensure Representation

Community minded People...

Socio Economic Status.

ZIP CODES??

WE KNOW HOW TO CORRECT THE BIASES

Seniors

Highly Educated People.

How can we ensure the Right Estimates?

WHO took the INITIATIVES to start these Programs?

Who was the DRIVER?

- Science
- Government
- Universities

Scientists Wanted to do the RESEARCH!
It's ESSENTIAL!



SCIENTISTS



Public Health Agencies should be @ least one of the Partners in the Platforms.

Continued ENGAGEMENTS w/all Partners!!

- Point out why it's IMPORTANT for Public Health Action
- Benefits

Continue to BUILD a ONE HEALTH Systems

Track Pandemics/Epidemics.

Having a COHORT! Testing continually. Loyal Participants.



IWOPS IV

RAPID FIRE Session #1:

EXEMPLARS IN PARTICIPATORY SURVEILLANCE



Terdsak Yano



Autumn Gertz



Patipat Susumpao



Channe Suy



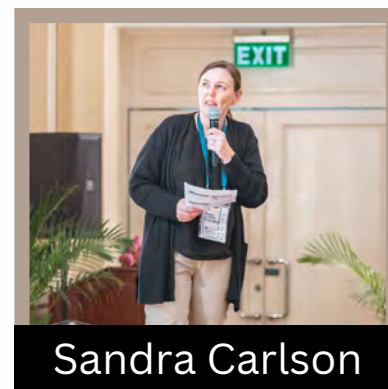
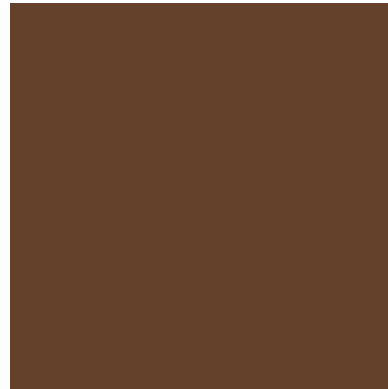
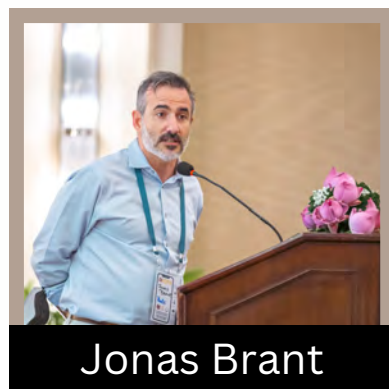
Esron Karimuribo



IWOPS IV

RAPID FIRE Session #2:

● PARTICIPATORY SURVEILLANCE FOR COVID 19



IWOPS IV

RAPID FIRE Session #3:

● PARTICIPATORY SURVEILLANCE



Phillipp Kohler



Smaila Alidou



Sarah Olson



Lundi-Anne Bibaa



Rachel Goodermote



Suleiman Haladu



IWOPS IV

RAPID FIRE Session #4:

● INNOVATIONS IN PARTICIPATORY SURVEILLANCE



Jack Ho



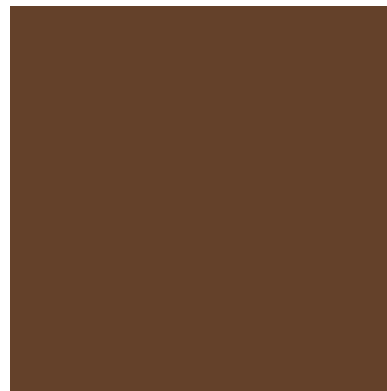
Matt Parker



May Lwin



Mvuyo Makhasi



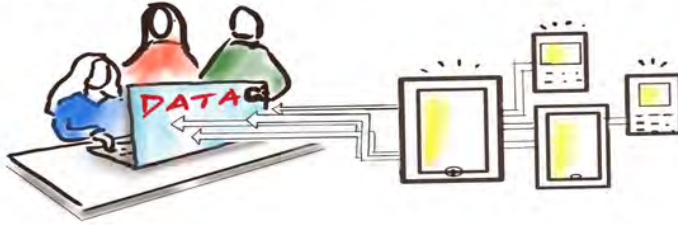
Caroline Smith DeWaal



IWOPS IV

RAPID FIRE Session #5:

● PARTICIPATORY SURVEILLANCE MEDLEY



John Phuka



Eric Beda



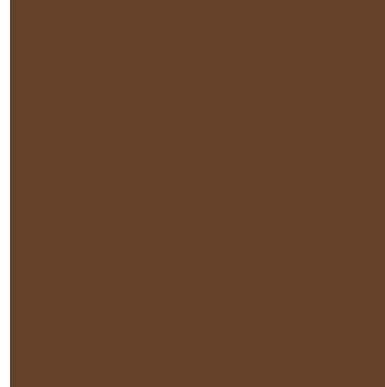
Matt Biggerstaff



Juliet Shenge



Sokha Chea



Kujtim Mersini



Jean Hakizimana





DEMONSTRATION OF GLOBAL FLU VIEW
ONICIO LEAL NETO

INTERACTIVE SESSIONS TO INFORM KEY DATA PARAMETERS IN ONE HEALTH
WORKSHOPS I, II AND III

◆ PURPOSE FOR A ONE HEALTH
PARTICIPATORY SYSTEM

TO DETECT THE EARLIEST SIGNAL
OF A POTENTIAL EPIDEMIC
OR PANDEMIC THREAT EMANATING
FROM HUMANS, ANIMALS OR THE
ENVIRONMENT BY DIRECTLY
ENGAGING THE COMMUNITY.





PRIORITIZATION EXERCISES



DESIGNING ONE HEALTH PARTICIPATORY SURVEILLANCE SYSTEMS

COMMITMENT WALL



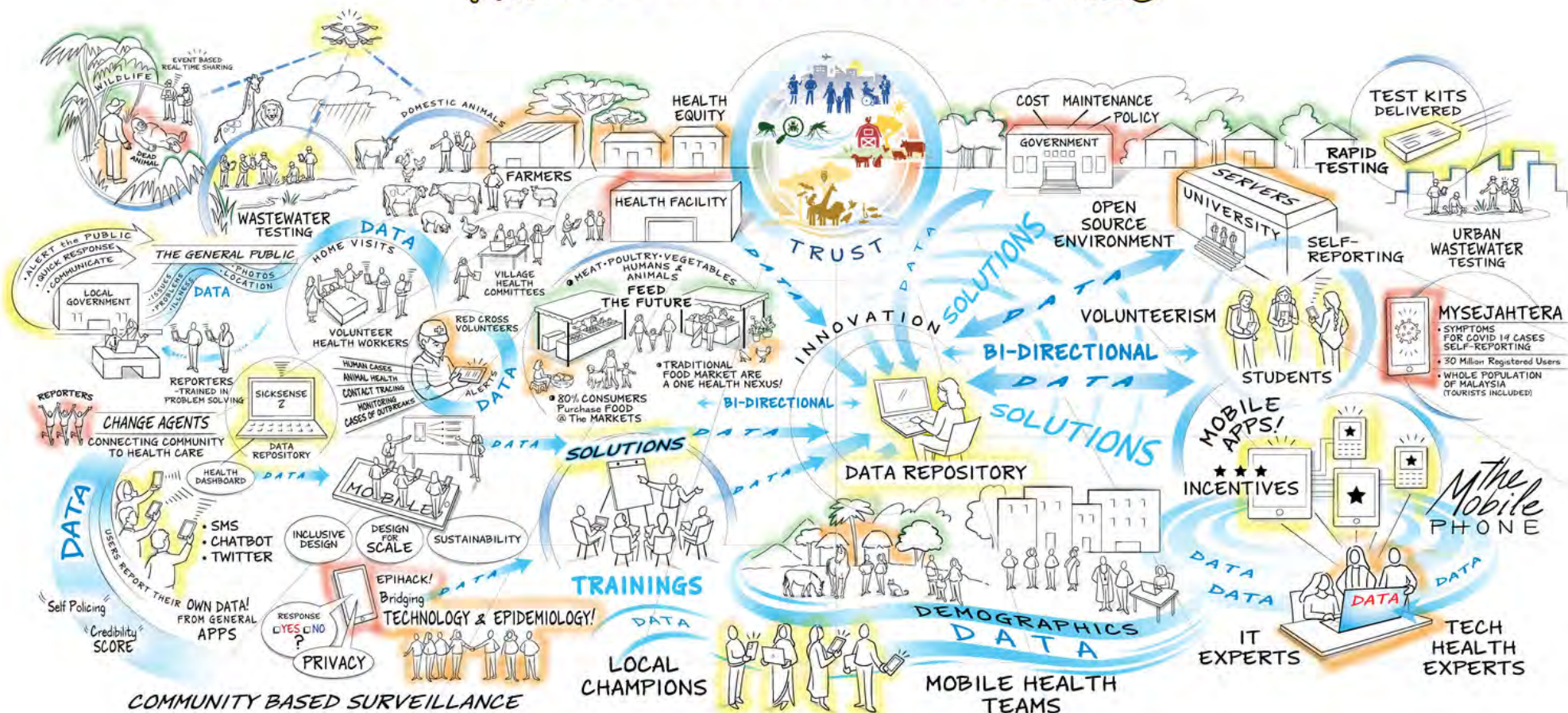
"With my experience on Polio surveillance the new knowledge will be applied to support other public health emergencies including zoonotic and one health threats."

"It was a novel experience to me since in Sri Lanka the surveillances related to veterinary field are still traditional. Now I need to make use the knowledge gained through out this workshop to develop applications related to veterinary public health."

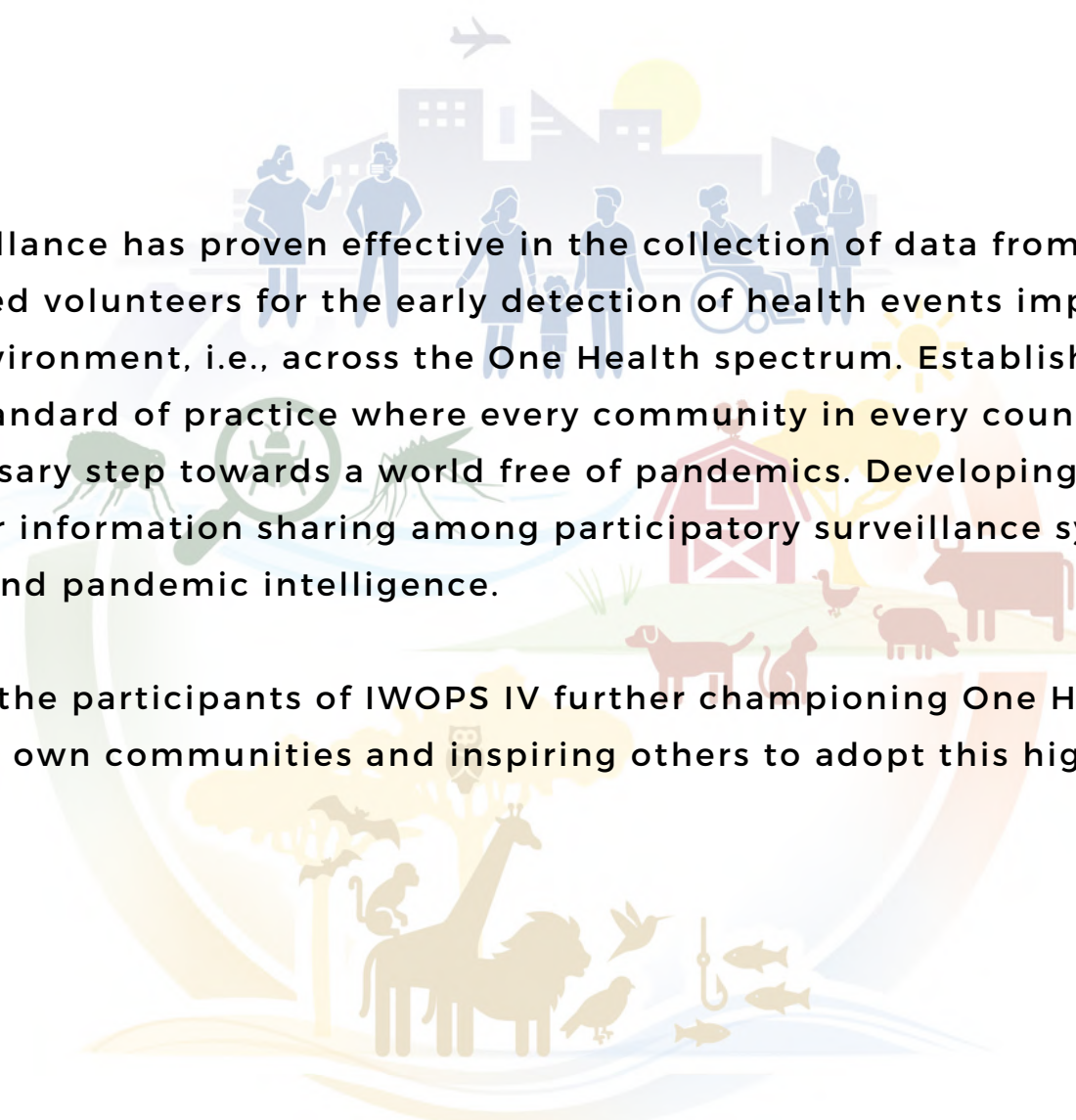
"I assure you that your goal of expanding Participatory Surveillance to nooks and crannies of the world, is a unique one that would yield fruits. I and my team promise to extend this wonderful idea to our local communities, especially hard-to-reach, remote communities, where no form of disease surveillance exists."



ONE HEALTH PARTICIPATORY SURVEILLANCE



LOOKING AHEAD



Participatory surveillance has proven effective in the collection of data from community members and trained volunteers for the early detection of health events impacting people, animals and the environment, i.e., across the One Health spectrum. Establishing Participatory Surveillance as a standard of practice where every community in every country utilizes this approach is a necessary step towards a world free of pandemics. Developing data standards and mechanisms for information sharing among participatory surveillance systems is critical to improve epidemic and pandemic intelligence.

We look forward to the participants of IWOPS IV further championing One Health participatory surveillance in their own communities and inspiring others to adopt this highly effective approach.

IWOPS 4th INTERNATIONAL WORKSHOP ON PARTICIPATORY SURVEILLANCE



**THANK YOU TO ALL THE PARTICIPANTS FOR MAKING IWOPS IV
AN INCREDIBLY SUCCESSFUL EVENT!**



ACKNOWLEDGMENTS

Ending Pandemics would like to acknowledge the important contributions of many people who were unable to join us in person at IWOPS IV. This includes Ending Pandemics team members: Carrie McNeil, who was instrumental in developing our One Health Participatory Surveillance interactive map and IWOPS IV Data Standards Toolkit; Jessica Shao, who oversaw the rapid fire submission process and IWOPS IV finances; and Jay Atanda, who helped with our social media outreach.

We'd also like to acknowledge Kirill Sajaev, Walter Martin and team at auq.io for their website support; the LGND team, led by Patrick Sims, for developing the interactive map; the team at Caspian Agency, led by Heather Mason, for their partnership in coordinating IWOPS IV; Oleksander Stecyk for our IWOPS graphics; and our travel agent Tom Fell for lending his expertise in booking air travel.

Finally, we would like to acknowledge our Advisory Board members, Margaret Hamburg, Larry Brilliant, Suwit Wibulpolprasert, and Taha Kass-Hout who provide ongoing guidance and support to Ending Pandemics.

IWOPS IV Workshop Participants

Name	Organization	Country
A. Danielle Iuliano	Centers for Disease Control and Prevention (CDC)	United States
Abdifatah Hussein Beledi	Somali Red Crescent Society (SRCS)	Somaliland (North-West Somalia)
Adriana Marquez Elguea	Mexican Institute of Social Security	Mexico
Alexander Kipronoh	Kenya Agricultural and Livestock Research Organization	Kenya
Amin Soebandrio	Dept. Clinical Microbiology Fac. Medicine, Univ. Indonesia	Indonesia
Aspen Hammond	WHO	Switzerland
Autumn Gertz	Boston Children's Hospital	United States
Babasaheb Vishwanath Tandale	Indian Council of Medical Research	India
Carl Koppeschaar	GroteGriepenCoronaMeting	The Netherlands
Caroline Smith DeWaal	GAIN	United States
Carrie Reed	Centers for Disease Control and Prevention (CDC)	United States
Channé Suy	Kawsang	Israel
Chansana Hang	Cambodian Red Cross	Cambodia
Ciro Catutto	ISI Foundation	Italy
Craig Dalton	FluTracking Australia	Australia
Daniel Cohen	Tel Aviv University, MECIDS, CORDS/EP	Israel
Daniela Paolotti	ISI Foundation	Italy
Darunee Ditsungnoen	CDC - Thailand	Thailand
David Barbosa	Universidade Federal de Minas Gerais	Brazil
Dewindra Widiamurti	Finnish Red Cross	Country Delegate for Cambodia
Eric Mutagahywa	SACIDS Foundation for One Health	Tanzania
Esron Daniel Karimuribo	SACIDS at Sokoine University of Agriculture	Tanzania
Filomena Namuba	SACIDS Foundation for One Health, Sokoine University of Agriculture	Tanzania
Folorunso Fasina	FAO	Kenya
Gaetan Khim	Diagnostic Microbiology Development Program	Cambodia
Hannah Kinzer	Washington University in St. Louis	United States
Heng Morany	General Directorate of Animal Health and Production (GDAHP)	Cambodia
Hilary Bower	London School of Hygiene & Tropical Medicine	Great Britain

Name	Organization	Country
Husni Zaeem Abd Hadi	Ministry of Health, Malaysia	Malaysia
Iman Hakim	University of Arizona	United States
Irfan Ahmad	SK-University of Agriculture Sciences & Technology of Kashmir	India
Ivan Specht	The Broad Institute of MIT and Harvard	United States
Jack Ho	Nanyang Technological University	Singapore
Jacob David Sabo	Bauchi State Hospitals Management Board, General Hospital Tafawa Balewa	Nigeria
Jacqueline Stephens	Flinders University	Australia
Jean Nepomuscene Hakizimana	SACIDS Foundation for One Health	Tanzania
Jeffrey Mariner	Cummings School of Veterinary Medicine at Tufts University	Spain
Jessica Devine	Indiana Rural Health Association	United States
John Phuka	Kamuzu University of Health Sciences	Malawi
Jonas Brant	ProEpi	Brazil
Jonilda Sulo	IPH/ SECID	Albania
Julia Jung	Norwegian Red Cross	Kenya
Julia Lee	Self-employed	United States
Juliet Shenge	Dominican University Ibadan	Nigeria
Julius Lutwama	Uganda Virus Research Institute	Uganda
Kakada Chheang	Kawsang	Cambodia
Kathie Paul Wilkerson	Skoll Foundation	United States
Koeut Dina	General Directorate of Animal Health and Production	Cambodia
Kujtim Mersinaj	SECID	Albania
Kuy Khechsim	General Directorate of Animal Health and Production (GDAHP)	Cambodia
Lertrak Srikitjakarn	PODD Centre, Chiang Mai University	Thailand
Lester Sam Geroy	World Health Organization - Geneva	Philippines
Lubna Alariqi	Gulf Center for Disease Prevention and Control	Saudi Arabia
Lundi Anne Omam Ngo Bibaa	University of Cambridge	Great Britain
Ly Sovann	Cambodia CDC/Ministry of Health	Thailand
M. Salim Uzzaman	Institute of Epidemiology Disease Control & Research (IEDCR)	Bangladesh
Mahad Jama	Somali Red Crescent Society (SRCS)	Somalia
Mahbubur Rahman	Institute of Epidemiology, Disease Control and Research (IEDCR)	Bangladesh
Matt Parker	Opendream	Thailand
Matthew Biggerstaff	Centers for Disease Control and Prevention (CDC)	United States
May Lwin	Nanyang Technological University	Singapore

Name	Organization	Country
Michael Wilkes	University of California Davis	United States
Mvuyo Makhasi	National Institute for Communicable Diseases	South Africa
Philipp Kohler	Kantonsspital St. Gallen	Switzerland
Rachel Goodermote	IFRC	Switzerland
Sandra Carlson	HNE Health	Australia
Sarah Olson	Wildlife Conservation Society	United States
Seng Heng	Ministry of Health	Cambodia
Silvia Bino	SECID - South East European Center for surveillance and control of infectious diseases	Albania
Sithar Dorjee	Khesar Gyalpo University of Medical Sciences	Bhutan
Smaila Alidou	Minister of Public Health and Universal Access to Health Care of Togo	Togo
Sok Samnang	Cambodia CDC/Ministry of Health	Cambodia
Sokha Chea	Wildlife Conservation Society	Cambodia
Sopheap Oeng	Diagnostic Microbiology Development Program	Cambodia
Sorn San	General Directorate of Animal Health and Production (GDAHP)	Cambodia
Sukanta Chowdhury	icddr,b	Bangladesh
Suleiman Haladu	African Field Epidemiology Network	Nigeria
Syed Mursalin	Pak One Health Alliance	Pakistan
Patipat Susumpao	Opendream	Thailand
Patranuch Sapchookul	Thailand MOPH – U.S. CDC Collaboration	Thailand
Pedro Saturno-Hernandez	National Institute of Public Health, Mexico	Mexico
Peter Schulz	Nanyang Technological University	Singapore
Terdsak Yano	Faculty of Veterinary Medicine, Chiang Mai University	Thailand
Uchenna Anebonam	ACDC	Nigeria
Ung Bunsong	Dept. of Animal Health and Veterinary Public Health	Cambodia
Valentina Bettella	Local health authorities Fuerteventura (Spain) and Padova (Italy)	Italy
Vantha Dim	Cambodian Red Cross	Cambodia
Viranga Jayasundara	Municipal Council	Sri Lanka



Ending
Pandemics

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