PL06 – MATHEMATICAL MODELLING, A LUXURY OR A NECESSITY IN STD CONTROL?

Monday, July 15, 2019 2:55 PM – 3:30 PM

PL06.1 MATHEMATICAL MODELLING, A LUXURY OR A NECESSITY IN STD CONTROL?

Geoff Garnett*. *Bill and Melinda Gates Foundation, Seattle, USA*

10.1136/sextrans-2019-sti.9

Mathematical models of sexually transmitted disease (STD) aim to represent sexual contact networks, pathogen characteristics, and intervention activities, helping understand and quantify STD epidemics and their control. Models are, unfortunately, necessary because non-linear infectious disease dynamics combined with many interacting variables undermines intuitive understanding. It is hoped that rational decision makers will include a range of evidence, including the finding of models, in funding, planning, implementing, and evaluating STD interventions and programs. The level of detailed required for informative models that can lead to better decisions, and how models can best be included in the international, national, and local public health ecosystem are areas for attention. Questions to consider are: 1) The pros and cons of focusing resources on sub-groups within a population. This is influenced by the biology and behavior associated with the STD, along with structural context. 2) How to ensure successful implementation of interventions? Here simple cascades are being used to identify gaps in treatment and prevention. 3) What is the relative value of developing, introducing and scaling the use of specific testing, treatment and prevention products in STD programs? The epidemiological context and coverage of other interventions have profound implications here. 4) How do we design a surveillance system that provides timely and actionable data on STD epidemiology? Here again the epidemiological context matters. The history of modeling STDs provides many examples that address such questions, and models are currently influencing policy, particularly in HIV programs. However, the development and validation of models in STD epidemiology has been hampered by our inability to directly measure the sexual network via which STDs spread. Recent efforts to evaluate model performance, and advances in pathogen sequencing and phylogenetic analysis, provide avenues to improve the validity and utility of STD models as their use becomes more systematic.

Disclosure No significant relationships.

PL07 – GLOBAL TRENDS IN HIV IN THE ERA OF COMBINATION PREVENTION – WHAT PROGRESS HAVE WE MADE TOWARDS ELIMINATION?

Tuesday, July 16, 2019 8:15 AM – 8:50 AM

PL07.1 GLOBAL TRENDS IN HIV IN THE ERA OF COMBINATION PREVENTION – WHAT PROGRESS HAVE WE MADE TOWARDS ELIMINATION?

Wafaa El-Sadr*. *Columbia University, New York, USA*

10.1136/sextrans-2019-sti.10

The global HIV response has had notable effects on the trajectory of the epidemic. Dramatic declines in morbidity and mortality have been noted in association with the scale-up of effective antiretroviral therapy (ART). Additionally, the number of new HIV infections has decreased to historical lows. However, only about half of the persons living with HIV have accessed ART and more than one million new HIV infections were reported in 2017. Evidence indicates that there is unlikely to be a single magic bullet for prevention of HIV transmission. Rather, combination HIV prevention strategies have been posited as the way to achieve the goal of decreasing the number of new infections to 500,000 by 2020, with a focus on both HIV negative and HIV positive individuals. A mix of behavioral, biomedical and structural HIV prevention interventions are likely to be needed. Several large studies have been completed examining the effect of combination prevention strategies on HIV with mixed results at a community level. At the same time, the findings from recently conducted Population-based HIV Impact Assessment (PHIA) surveys in several sub Saharan African countries have demonstrated some impressive, but variable progress in controlling the epidemic. Both of these efforts have shed light on the gaps in the HIV response. This plenary talk will provide background information on the status of the global HIV epidemic, progress to date, gaps in the response, and ways in which combination prevention approaches can show the path towards epidemic control.

PL08 – #METOO MOVEMENT, SYSTEMS OF POWER AND SEXUAL HEALTH AND WELLBEING: THE WIDENING OF THE #METOO MOVEMENT

Tuesday, July 16, 2019 8:50 AM – 10:00 AM

PL08.1 #METOO MOVEMENT, SYSTEMS OF POWER AND SEXUAL HEALTH AND WELLBEING: THE WIDENING OF THE #METOO MOVEMENT

¹Irin Carmon*, ²Rebecca Thurston*. ¹*New York Magazine and CNN Contributor, New York, USA;* ²*University of Pittsburgh, Pittsburgh, USA*

10.1136/sextrans-2019-sti.11

The Plenary Panel ‘#MeToo Movement, Systems of Power and Sexual Health and Wellbeing: The Widening of the

#MeToo Movement' will bring together expert speakers to discuss the impact and implications of the #MeToo movement for sexual health, social justice and equity.

Presentation: The MeToo Movement's 2019 PSA Campaign

This panel will show the new campaign from the #MeToo Movement from creative agency Deutsch and #MeToo movement creator Tarana Burke. The videos focus on the dignity, humanity and healing of survivors of sexual violence. They feature firsthand accounts and reflections from four survivors of sexual violence and abuse, including Terry Crews. 'In the year that's gone by, I've learned that silence is violence,' says the 'Brooklyn Nine-Nine' star in the video. 'I will not be shamed. I did nothing wrong.'

PL09 – UNDERSTANDING CHLAMYDIA PATHOGENESIS

Tuesday, July 16, 2019 1:45 PM – 2:20 PM

PL09.1 UNDERSTANDING CHLAMYDIA PATHOGENESIS

Kevin Hybiske*. University of Washington, Seattle, USA

10.1136/sextrans-2019-sti.12

Chlamydia trachomatis is the leading cause of bacterial sexually transmitted infection, and is responsible for a range of chronic and severe reproductive outcomes. The ability of *Chlamydia* to cause chronic infection is linked to unique mechanisms associated with chlamydial pathogenesis: *Chlamydia*'s obligate intracellular nature, its ability to evade host immune responses, and its reversible conversion into 'persistent' developmental forms. The past decade of *Chlamydia* research is marked by groundbreaking advances in genetic manipulation of *Chlamydia*, which in turn has catalyzed our mechanistic insight into *C. trachomatis* host adaptation and pathogenesis. Our recent progress will be discussed, along with the resulting new understanding obtained in the areas of chlamydial virulence factors, immune evasion strategies, persistence, and dissemination. Finally, I will discuss emerging areas of research in *C. trachomatis* infections, including the role of the microbiome, rectal infections, tissue resident memory T cells, drug treatment failures, and the short- and long-term prospects for treating *Chlamydia* infections.

Disclosure No significant relationships.

PL10 – THE GLOBAL HIV RESPONSE AT 40

Tuesday, July 16, 2019 2:20 PM – 2:55 PM

PL10.1 THE GLOBAL HIV RESPONSE AT 40

David Wilson*. World Bank, Washington, USA

10.1136/sextrans-2019-sti.13

As the global HIV response approaches 40, we can trace 3 phases in its evolution. The first phase, from the early 1980s to the late 1990s, is characterized as an era of despair, as the virus raged unchecked through communities and political

commitment and resources were scarce. The second phase from the early 2000s to about 2012 represents one of hope, with effective treatments developed and political commitment and international resources surging. HIV financing grew 30% annually a decade, an unprecedented increase. After 2012, the HIV response entered a period of uncertainty. Development assistance for HIV fell for the first time. International financing for HIV has grown perilously reliant on one funder - the US. Political commitment has fallen globally and nationally. In the epicenter of HIV, Eastern and Southern Africa, concerted international support has underpinned a sustained response, but domestic resource mobilization is uneven and inadequate. Outside Eastern and Southern Africa, the response is faltering in great swathes of the world. Stigma against key populations remains widespread. Advocacy-based claims that we can end the HIV epidemic are premature and have contributed to a perception that the crisis is largely over. Competing disease priorities - including TB, malaria and hepatitis - are pressing their claims for a share of a pie that isn't growing. The HIV movement has an equivocal relationship with the Universal Health Coverage (UHC) movement - concerned that its profile and financing may be diluted by integration. This presentation discusses these challenges and presents 2 scenarios - a high road to success and a low road to failure - based on choices we are making today.

Disclosure No significant relationships.

PL11 – GLOBAL HEALTH LEGACIES, SUSTAINABLE DEVELOPMENT GOALS, AND IMPLICATIONS FOR SEXUAL & REPRODUCTIVE HEALTH

Tuesday, July 16, 2019 2:55 PM – 3:30 PM

PL11.1 GLOBAL HEALTH LEGACIES, SUSTAINABLE DEVELOPMENT GOALS, AND IMPLICATIONS FOR SEXUAL & REPRODUCTIVE HEALTH

David Peters*. Johns Hopkins University Bloomberg School of Public Health, International Health, Baltimore, USA

10.1136/sextrans-2019-sti.14

In exploring the historical origins of global health – conceived as interventions in the health of other populations – this presentation identifies key themes that shape our thinking and action, including those related to sexual and reproductive health (SRH). The adoption of the 2030 Agenda for Sustainable Development and its Sustainable Development Goals (SDGs) offers a paradigm shift from the past. Using examples related to inequity, climate change, and migrant populations, the presentation examines the connections to and implications for SRH, identifying new opportunities and imperatives for action. Despite massive increases in the scale and complexity of global health efforts, the rationale and approaches for intervention have changed little, creating a legacy of:

1. Primacy of science. Advances in science in low resource settings have saved millions of lives around the world, yet has privileged biomedical and technological applications to addressing one health problem at a time, but with significant opportunity cost to building local capabilities and institutions