Much innovation in digital sexual health has focussed on postal self-sampling for STIs and blood borne viruses. The available literature, with some exceptions, suggests these services appeal more to women, people with higher educational qualifications, and those from more affluent areas. A recent study suggests that people with mild learning disabilities find considerable barriers to this type of care. Where available, clinical outcomes of online care compare variably with traditional care pathways and there has been little robust economic evaluation.

Digital sexual health has huge potential to meet the needs of people who are willing and able to engage with online care. Much more ambitious care could be provided in seamless eClinics which are integrated with face-to-face services, giving the user and health care professional flexibility, continuity and choice. They have the potential to provide good value for money.

However, STIs, like digital literacy are socially patterned; the burden of STIs is disproportionately borne by those who already experience health inequalities and people experiencing health inequalities are less digitally and health literate. We need to ensure we create digital health systems which narrow rather than widen existing health divides, and evaluate them robustly.

I will summarise existing evidence for online sexual health care and draw out the major evidence gaps to help us develop inclusive, effective online sexual health care.

PL10 USING PATHOGEN POPULATION GENOMICS TO STUDY THE EVOLUTION, SPREAD, AND ANTIBIOTIC RESISTANCE OF STIS

Y Grad*. *Harvard Chan School of Public Health, Boston, USA*

10.1136/sextrans-2021-sti.10

The analysis of genomes from populations of isolates can help address many questions relevant to the pathogen's biology and epidemiology and thus inform on clinical and public health practice. These questions include the origins and evolution of the pathogen, its spread through populations, and the genes and genotypes associated with a pathogen's antimicrobial resistance, virulence, and other phenotypes of interest. Here, I will discuss the application of population genomics to STIs, with a focus on *Neisseria gonorrhoeae* and with highlights from other sexually transmitted pathogens.

PL11 HONOURING THE 'LIVED EXPERIENCE': A REFLECTION ON PARTICIPATORY PRACTICES IN RESEARCH

B Kasadha*. *University of Oxford, Oxford, UK*

10.1136/sextrans-2021-sti.11

This talk will reflect on community engagement and participatory practices implemented in health research and the contexts that enable and hinder this. The talk will explore what is needed to address the dichotomy between 'knowledge producers' and 'knowledge recipients' and the impact this has on partnerships and collaborating with communities in health research. Bakita Kasadha will draw on her experiences in

community and academically led participatory health research with people living with HIV.

PL12 THE NEW ABNORMAL: STI AND HIV DIVERGENCE AND CONVERGENCE IN A CHANGING UNIVERSE

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Soon after the recognition of HIV as the cause of AIDS, its multiple interactions with STI were recognized. HIV-STI synergism was manifested in several ways. Individuals at increased risk for HIV were also at increased risk for STI, resulting in epidemiological synergism. The transmission of HIV was greatly facilitated by anogenital inflammation, ulcerations, and abnormal microflora, often due to STI, and HIV could alter susceptibility to some STI, examples of biological synergism. However, the subsequent development of highly effective antiretrovirals for HIV treatment and prevention altered these relationships. HIV-infected individuals who were virally suppressed on treatment were found to be incapable of transmitting HIV to uninfected partners, leading to the mantra that Undetectable=Untransmissible, or U=U. The use of antiretroviral pre-exposure prophylaxis (PrEP) by sexually active, HIV-infected individuals limited their risk for HIV acquisition. Over the past decade, the recognition that antiretrovirals can protect against HIV transmission or acquisition has been associated with increasing detection of STI globally, i.e. unlinking epidemiological synergism. These new challenges present new opportunities, creating a greater need for the coordination and integration of HIV and STI diagnostic, therapeutic and preventive services, and the development of creative, consumer-friendly services focused on sexually active persons. Some jurisdictions have developed express clinics which use touchpad computers and rapid turn around NAAT screening to create a seamless experience for sexually active clients. Many of these centers use a 'status neutral' approach, i.e. providing 'one stop shopping' sexual health services, where HIV-positive and negative persons can access STI screening and treatment. Those whose HIV status is unknown, can be tested, and depending on the results, be triaged to antiretroviral treatment or PrEP. New concepts and models that are people- rather than pathogen-centered may ultimately result in better control of multiple co-prevalent pathogens.

PL13 EFFECTIVENESS OF INTERVENTIONS WITHOUT RCTS

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Randomized clinical trials (RCTs) are generally considered the gold standard for the evaluation of interventions. In an RCT, one group is randomly assigned the intervention and another group serves as a comparison group. But RCTs can be subject to loss to follow-up and non-adherence, which can create challenges for interpretation. In addition, we often cannot randomize an intervention, whether for ethical or logistical reasons. What can be done in those circumstances?

In the past quarter century, the field of epidemiology has made dramatic progress in the use of causal methods to