



WHO-RUSH Reproductive health sexually transmitted infections STIs VPC

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MO World Health Organization virtual press briefing on new global data on sexually transmitted infections. This study will be published online tomorrow, Thursday, and I would like to remind you that this is an embargoed briefing. The embargo lifts at 16:00, that is four p.m. Geneva time, tomorrow, Thursday 6th June. Embargoed copies of the paper and a press release are available. If you have not already received these, please contact us via email.

I have with me in the studio right now Doctor Melanie Taylor, who's the lead author of the study and an expert in sexually transmitted infections, and Doctor Teodora Wi, our WHO Medical Officer for sexually transmitted infections. Doctor Taylor will give a brief outline of the findings of the study, and then Doctor Wi will talk about what we can do to tackle this serious and growing problem. I will then open the floor to questions.

To ask a question during the question and answer session, registered participants should type zero one on their telephone keypad. This will place you in the queue to ask questions. Please note, only participants who have clearly identified themselves and their media outlet will be able to ask

questions. So now I'll hand you over to Doctor Melanie Taylor, who will tell us about the key findings and what they mean.

MT Thank you. It's a pleasure to be here today. We'll just start out with a summary of the findings of this analysis, and to say that these new data show that there are more than 376 million new cases annually of four curable STIs. These curable STIs are chlamydia, gonorrhoea, trichomoniasis, and syphilis. When we say STI, what we mean is sexually transmitted infection, in some areas this is sexually transmitted diseases, I will refer to these as STIs as I go forward.

In translation of these data, these 376 million new cases, this is about one million new infections with these four curable organisms or infections every single day. And the data were collected worldwide, among men and women ages 15 to 49. And the estimates for the specific infections include 127 million new cases of chlamydia, 87 million cases of gonorrhoea, 6.3 million cases of syphilis, and 156 million cases of trichomoniasis.

Now, these cases are not individuals, these are infections, and it's important to distinguish that because many people can be infected with multiple STIs, sexually transmitted infections, and some people within a year can experience reinfection with one or more sexually transmitted infections. And so it's important to make that distinction. On average, these data translate to one in 25 people globally having at least one of these curable sexually transmitted infections, with some of them experiencing multiple infections at one time.

Since the last publication, our last WHO estimation of curable STIs, there has been no substantial decline. And although these infection numbers are similar to those published previously, these again demonstrate an incredibly high global burden of these sexually transmitted infections. And it is important to note, for today and for tomorrow, as these are released, that these estimates do not include the viral associated sexually transmitted infections, and those are, specifically, herpes, human papilloma virus, hepatitis B, and HIV.

I will speak about those a bit more later. But these only include the four curable STIs, chlamydia, gonorrhoea, trichomoniasis, and syphilis. These infections are treatable and curable with antibiotics, but, unfortunately, most of these infections occur without symptoms and thus patients, people, don't realise they have the infection. They don't realise they are at risk, and they don't go in for testing and treatment, and thus the opportunity to transmit the infection is quite high. The opportunity to transmit the infection to their sexual partners, but also from mothers to their unborn infants is very, very high.

These infections, if left untreated, can result in stillbirth, neonatal death, infertility, among men and women. They also can result in ectopic pregnancy and increase the risk of HIV transmission, as well as HIV acquisition, or becoming infected with HIV. Syphilis alone causes over 200000 neonatal deaths and stillbirths annually, and this makes it the second leading cause of infectious stillbirth globally, second only to malaria.

These infections of course have social and psychological effects on people, not just the individuals infected but also partners, as well as families. And as I mentioned before, it's important to remember that these are four curable sexually transmitted infections. There are many, many more than these estimates of the virally associated sexually transmitted infections, including herpes, HIV,

hepatitis B, and human papilloma virus. Of note, human papilloma virus and hepatitis B virus are preventable with vaccination, and it's important to consider that.

It's important to note also that these infections indicate people are taking risks with their health, with their sexuality, and with their reproductive health. As they consider having sex, they are not considering the risk of sexually transmitted infections.

MO Thank you very much, Doctor Taylor, for outlining the findings and what they mean. So there you have the problem, now Doctor Teodora Wi is going to discuss what we can do about it.

TW Thank you so much. And as you have heard from Melanie, sexually transmitted infections are everywhere. They are more common than we think, but STIs are not given enough attention. We continue to stigmatise people who are living with an STI, we neglect their care and, what's more, we fail in prevention. We need to talk openly and honestly about sexually transmitted infections. Sexually transmitted infection should not be treated differently from any other infections and, most importantly, we cannot sweep them under the carpet and pretend that they do not exist.

So, what can we do about this? We are all in this together. For policy makers, make sex safer and support STI services. Please do not cut the budget on STI control and STI services, better, even, increase it. For programme managers, researchers, and experts, continue to find better ways to prevent, diagnose, screen, and treat sexually transmitted infections. We need point of care tests that are cheap, affordable, and available. Additionally, we need more data to make a case for STIs; we still have very limited data at the moment.

For our healthcare providers, respect the right of everyone to make sexual choices that fit with their own personal values. Normalise the discussion about sex, treat STIs like any other infection, do not be the source of stigma. For STI patients, be open about your sexuality so that you can receive the appropriate care. Educate yourself about protection, about getting tested, knowing your risk, and learning to communicate with your partners for a healthy, consent-based relationship.

People from the media, you can really make a difference; please give us more programmes and shows on sex education. We need your expertise on innovative approaches and smart messaging on promoting condoms, for example. Parents and teachers, help your children and students to attain healthy sexuality and a positive sex attitude. Help them to understand the basics of sex and consensual sexual expression. Give them the skills to protect themselves from unwanted pregnancies, from STIs, and HIV.

And, for all of us here, for those who choose to have sex, be rational, be responsible, be safe, and have fun. Use a condom correctly and consistently. And if you think you have an STI, do not be ashamed; go to your doctor and make sure you do not transmit the STIs to others. Make sure that you also have your sexual partner be treated. Sex is part of our lives, sadly, so are sexually transmitted infections; together, all of us here can do something to reduce sexually transmitted infection, but, at the same time, have a fulfilling sex life. Thank you.

MO Thank you so much, Doctor Wi, that was really, really enlightening. I'm going to take the privilege of presenter and take the first question. I'm opening the floor to questions, but I'm going to take the first questions. But, before I open the floor, I'd like to remind you that this briefing and all materials are embargoed until tomorrow, Thursday, 16:00 Geneva time. I'd also like to remind you,

to ask a question, registered participants should type zero one on their telephone keypad. This will place you in the queue to ask questions. But, first of all, I'm going to ask Doctor Taylor, would you say this is a forgotten problem, a hidden epidemic?

MT Yes, absolutely. I think as we look at the data over years, what we've seen is that there has not been a dramatic decline, despite the increases in opportunities and education related to sexual health and sexually transmitted infections. What we see is that these infections are associated with stigma, they're associated with shame, they are hidden, or silent, because most patients do not have symptoms. When they become infected, they don't realise they are infected, and they transmit the infections to their partners. And, unfortunately, women may transmit these infections to their infants, unknowingly. And so we do consider this a hidden epidemic, a silent epidemic, a dangerous epidemic, that is persistent, globally, and persistent within populations, families, and relationships, and quite damaging to all.

MO Thank you so much, Doctor Taylor. I now have a question from Christina from DPA; Christina, please go ahead.

CH Yes, thank you for taking my question. I have a few, just clarifications, they should be very short and just one-word questions. The first one was you talked about viral infections not included, can you give us a number, a yearly number, on viral infections per year? Then, 25 per cent of people are infected at any one time, is that the right reading, worldwide? I guess that there must be big variations between regions and countries; could you be a bit more specific where this problem is more prevalent, in one region more than the other? Then, stillbirths because of syphilis, is that because the mother has syphilis, or is that because the foetus has been infected because maybe the father has syphilis?

And the fourth clarification, according to the data, a lot more women have sexually transmitted disease; is this because you have better data on women? Or do your estimates suggest that women are actually more affected than men are? And my real question is on, I'm sorry to be so long, is the problem of resistance to treatment; I saw in the press release that it might be difficult in a few years to treat gonorrhoea at all because the resistance has been growing so much. What is being done to prevent that from happening? Thank you.

MO I'll start with Doctor Taylor, to answer those, and if Doctor Wi wants to jump in after that, we'll do it that way. Doctor Taylor first.

MT Thank you for your question regarding virally associated sexually transmitted infections, or those caused by viruses. WHO does publish estimates of prevalence of virally associated sexually transmitted infections, including HIV; those updates estimates for herpes are expected in approximately six months? The update on human papilloma virus is expected in approximately one year. However, prior estimates suggest that more than 500 million people, globally, have prevalent herpes infection, and more than 300 million people have prevalent HPV infection. These are very old numbers and I would encourage you to think cautiously about using them, but it gives you a ballpark figure. And then you may be able to find the hepatitis B virus and the HIV virus estimates online at WHO.int.

For the geographic locations of high burden of these four curable infections, these will be published tomorrow as an external table on Figshare that I encourage you to look at. Specifically, these will be broken down by the sustainable goal regions, the eight regions that WHO focuses on, and they are quite interesting because there are variations in both the prevalence and incidence of these infections geographically. And I think I could spend some time giving you specific numbers, but the burden is invariably high across all regions, given that these are preventable, curable infections, with antibiotics.

Regarding your question about stillbirths from syphilis; stillbirth and adverse birth outcomes because of syphilis are due to infection in the mother. That means if a mother is infected with syphilis at the time of pregnancy, or becomes infected during pregnancy, the bacteria that causes syphilis is transmitted across the placenta and causes adverse birth outcomes, including low birth weight, prematurity, congenital deformities and, most tragically, stillbirth and neonatal death in the infant. This is an infection that is transmitted vertically from mother to infant.

Regarding your question related to the women's prevalence of sexually transmitted infections is higher, there is an important distinction, epidemiologically, between prevalence and incidence. When we look at prevalence, women most oftentimes have persistent infection, and this is based on the physiology of the female genital tract, where the infections can be persistent, and the vaginal canal can serve as a reservoir for these persistent infections. Whereas in the male physiology, it's not as hospitable an environment for these organisms to live, and thus men are able to clear some of these infections quicker.

However, if you consider the incidence, that is the new cases of these infections, you will see in the external table tomorrow, at the time of the release of these data, that the incidence of these infections is quite similar among men and women. So this suggests that women may bear a burden of persistent infection, but men and women share, nearly equally, the incidence or the acquisition of new infections. And so there is as big of a difference in new infections among men and women. And, finally, I would like to turn over to my colleague, Doctor Teodora Wi, to answer your question about anti-microbial resistance.

TW Thank you very much for that question. Definitely there is already increasing problem of resistance to sexually transmitted infection. WHO has been monitoring resistance to STIs for a long time, and as you would note in our gonococcal anti-microbial surveillance programme, we are seeing very high rates of resistance to quinolone to treat gonorrhoea, we have emerging resistance to azithromycin, which is an alternative treatment for gonorrhoea, and most of often than that, we are already seeing the emergence of resistance to ceftriaxone, which is the last line treatment for gonorrhoea.

But in addition to resistance to STIs with gonorrhoea, there are also reports of resistance, for example, on syphilis when you treat them with azithromycin, there is also increasing resistance to syphilis with a treatment of azithromycin. And there are also other STIs that also present with resistance, such as mycoplasma genitalium, which is complicating the whole issue of treating men and women with urethral or vaginal discharge at this point.

MO Thank you so much, Doctor Taylor and Doctor Wi. I know have Ann Gullans on the line for the next question; Ann, please go ahead.

AG Thanks very much for taking a question. It's Ann Gullans from The Telegraph here. I've just got a question, a bit like the previous speaker, I've got a question about the figures, and then a more general question. On page 40, you mentioned a table that's coming out tomorrow, but I just wondered how much that is different to the table on page 40 of the study, which is a comparison of the 2012 and 2016 regional prevalence estimates? Are they different figures, or is it the same thing? And, also, for example, so if the figure for women with chlamydia in 2012 in Africa is 3.7, does that mean that 3.7 per cent of women in the African region had a chlamydia infection in 2012? I just wanted to check how I should word that.

Also, a more general question, I just wondered about the climate in terms of sex and sexual health; you've got things like the global gag rule in the US, which is stopping money going towards a lot of family planning and reproductive health organisations in developing countries, and I wondered if there was a sort of feeling that the climate is shifting? That it's more difficult place, now, to talk about safe sex and issues concerning sex. So I just wondered what your thoughts were on that. Thank you.

MO Doctor Taylor will answer the first question, and I think Doctor Wi might be the one for the second question.

MT Thank you very much for your question. And I think you're referring to table five, which compares, as you noted, 2012 estimates and 2016 estimates for regional prevalence. And it's exactly as you noted, if you take the African region, for chlamydia, the prevalence in 2012 was 3.7 per cent and in 2016 it was 5.0 per cent. The way that would be spoken is in 2016, for example, five per cent of the population had a chlamydia infection. Now that is not new cases, that is prevalent pre-existing cases. And, similarly, you could use the gonorrhoea estimates on the same line, for the African region, to say that 1.9 per cent of the population had an infection with gonorrhoea during that year.

MO Thank you, Doctor Taylor. Doctor Wi will answer the other question about the climate.

TW I think when it comes to the climate about sex, I think it's really very interesting. It's always an issue that we deal with. Sex is part of our life, but I think at the moment, if you look at it, sex is becoming more accessible. You have dating apps and all that, so probably that is a factor that is why; it becomes more accessible, then you have more sex, then you have more STIs. Secondly, I think during the 1980s you would remember that there was an epidemic of HIV and really we didn't know what to do with HIV. And during that time, people are just so scared. I don't know if you grew up in that era, but I grew up in that era where sex education was very intense. And during that era, sex education was really something that adolescents would be looking forward into.

But now, you look at it, HIV, you have already treatment as prevention, and they are more complacent about protection. You have less people being worried about HIV, you have prep, for example, to prevent you from having transmission, and that really probably also ensures that there's less condom use. Adolescents are now not scared of getting HIV, so there's also more sex regarding that. And, because of this, there might be a period where we are now also seeing unprotected sex and more STIs in the end.

In addition to that, I think when you say are we in the climate of access to services, it's another issue. And if you look at access to services, I think this is where we need more services for sexual and

reproductive health services. And I think a cutback on some of this support, I think not only in the US but also all over the world, is already affecting some of the issues regarding STI services. In addition to that, one area of work that we are looking at is the issue of screening; are we now screening more people so that we are seeing more STIs? But, on the other hand, these are only in high income countries; in low income countries, we are still not able to screen people because we don't have the point of care tests that we need. So the climate is really changing and there are more rises to more STIs, I think, that we are seeing at the moment.

MO Thank you very much, Doctor Wi. I now have a question from Nina Abraham from CNN International; please go ahead, Nina.

NA Hi, thank you for taking my question. I have a, I would say, two-part question about the data. I've read in one section of the report that 47.1 per cent of these four infections occurred in upper middle-income countries. I was wondering if you could provide me an explanation as to why most cases occurred in this specific region. And I just wanted to double-check, if I'm talking about incidence rates, is that only the new cases for the year 2016? Thank you.

MO Doctor Taylor, please go ahead.

MT Thank you for these questions. Indeed, if you have found the value of 47.1 per cent of these infections occurring in upper and middle-income countries, that is correct. To answer your question regarding the reason for that; it speaks a little bit to the data availability. And what is important to understand is that data are limited in areas where diagnostic testing are not widely available. And it speaks a little bit to what Doctor Wi was saying before, is that access to screening, and that is testing among patients who are presenting for routine care, is not widely available outside of upper and middle-income countries. We know that in lower income countries, diagnostics for chlamydia, gonorrhoea, trichomoniasis, and syphilis are very, very limited.

And oftentimes patients simply present with STI symptoms and then they are treated with medications as the doctor takes a very educated guess about what these symptoms might be caused by. But diagnostics are very limited. So we know that in upper and middle-income countries, studies and screening prevalence surveys are often done as part of general health surveillance. We also know that pregnant women, for which a lot of the data are available for this analysis, they have access to healthcare during their pregnancy, as compared to women that are outside of pregnancy, and also men. Because men don't often seek care; they don't have symptoms, so they don't go in for treatment, but also they are not screened for STIs as often as women. And so these help to explain why the burden of these infections is high in upper and middle-income countries, but equally high and perhaps even higher in lower middle-income countries where our data are limited.

In addition to that question, your second part of your question was related to the incidence for 2016 and, yes, you are correct, that these data represent the year 2016. As you can imagine, it takes some time for data to be published, at least 18 months, sometimes two years, during the publication process, and so data after 2016 are currently not available for STI prevalence incidence. The most recent data year that we have is 2016, so the incidence data do represent that year. I hope I've answered your question. Thank you again.

MO Thank you for that. I now have a question from Lesley Young from Global News Canada; please go ahead, Lesley.

LY Thanks very much for taking my questions. I actually have two questions; first, I'm unfamiliar with trichomoniasis, apologies if I said that wrong. I'm just wondering, would you be able to tell me if it's left untreated, what are some of the consequences? That's my first question, my second one is you mentioned that a lot of people don't have symptoms and are probably unaware that they have these diseases; so, given that, what's the best way to stop people from unknowingly transmitting the disease to others? Thank you.

MO This sounds like a question for Doctor Wi, first of all, the second question, and the first question for Doctor Taylor. So, please go ahead, Doctor Taylor, for the first question.

MT Thank you. I think perhaps many people are not as aware of trichomoniasis; trichomoniasis is an infection caused by a mobile or a swimming parasite. It most oftentimes infects both men and women, but it's more persistent in women because the vaginal tract, as I mentioned earlier, has a better environment for this organism to live. And I think that what we see with trichomoniasis is that women have persistent vaginal discharge that is difficult to interpret whether or not it's normal or abnormal. They oftentimes will go in for treatment, but they become re-infected because their partners are not treated.

For me, this infection with this parasite can cause painful urination, it can also cause a urethral discharge. But, again, men oftentimes will clear the infection, whereas women can remain with a persistent and prevalent infection. If left untreated, this causes persistent vaginal symptoms, vaginal discharge, and it can be very uncomfortable to the women because they can have lower abdominal pain. In addition, if the woman is infected during pregnancy it can cause adverse pregnancy outcomes, specifically premature delivery, premature rupture of membranes, and low birth weight to that prematurity. I'll turn it over to my colleague, Doctor Wi, regarding the asymptomatic nature of these infections, and how we can prevent and [overtalking].

TW Thank you very much for that question. Asymptomatic STIs is really a big challenge to us because if you look at it, there are two ways to tackle this; first is to prevent the infection. Use a condom when you have sex, then when you have that STI it doesn't spread to another individual. Secondly, I think is screening; when you are asymptomatic, I think you would like to know whether you have an STI or not, so you need to get a diagnostic test to be reminded of what STIs you have. And then you get treated for it, so that then you don't have the adverse complications or consequences of an STI.

But since the asymptomatic STIs, and when you think of it, government usually would have screening programmes to tackle the asymptomatic cases. For example, in high income countries, they do screen women less than 25 years old for STIs, especially for gonorrhoea and chlamydia. Also for high-risk groups, for example, that are more at risk for STIs, then you have men who have sex with men, or sex workers, they do have screening programmes for them so that they can be regularly checked for having an STI, and so that they couldn't then spread the STI to others.

Most importantly, I think what needs to happen is also in pregnant women, screening is very important because they have important consequences, not only to the mother but also to the

unborn child. So we do recommend, for example, syphilis screening for all pregnant women at this point. And if they can afford to screen for other STIs, so much the better.

MT And I would just like to reiterate, if I can say, one of the things that Doctor Wi had expressed earlier, I'd like to emphasize again, and that is access to affordable and accurate STI diagnostics are not available in lower and many middle-income countries. And this is a huge public health deficit, I would say. Although we are able to estimate sexually transmitted infections, our interventions are very much limited by the lack of diagnostics, such that medical providers and patients themselves cannot tell if they have an STI, and thus cannot seek or receive appropriate treatment. This is really an opportunity as a call to action for our international supporters and advocates of sexual and reproductive health to consider as we provide the education through these types of media releases and estimates of global sexually transmitted infections, that we have a responsibility to seek the support to develop and deliver these STI diagnostics at the level of patient care, such that we can reduce and prevent adverse birth outcomes, adverse sexual and reproductive health outcomes, and the stigma and adverse relationship outcomes that result.

TW But, in addition to that, I think at the moment, if you look at our website, we do now have a call for a public announcement on developing a point of care test for gonorrhoea and chlamydia. And WHO is now developing this target product profile, and it's on public consultation at the moment, to really ask the manufacturers to look into this issue of point of care tests. And this target product profile is really looking at the test that is almost like a dip test, a pregnancy test, so that when you dip it into a discharge, you will know whether you have gonorrhoea and chlamydia. And that most of all it needs to be not expensive, like it could probably be one to two dollars-worth of cost. So now we are really calling on the international global health to really support WHO to pursue the development of these point of care tests, based on a target product profile that we have developed.

MO Well, we've reached the end of our time for the press conference. I'd like to say thank you very much for everybody's attendance, and to our two expert speakers, for speaking about this secret and very dangerous epidemic, and that we hope we can all do something about. Thank you very much.

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