

CLASSROOM DEBATE ON “BOYS SHOULD BE GIVEN HPV VACCINATION ALSO” BY GROUP 2 FINAL UNDERGRADUATE MEDICAL STUDENTS IN MUAR, MALAYSIA

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ABSTRACT

A classroom Debate on “Boys should be given HPV vaccination also” has been conducted as a Teaching learning activity. The activity has been organized by the 10 students of the rotation Group 2 Year 5 students during the Pediatric posting of 8 weeks’ duration in addition to other teaching learning activities. The aim of this activity is to foster learning with a unique learning strategy; to enable students to develop constructive arguments to support opposing views of the given topic; to encourage critical thinking; to raise students’ awareness that most issues are not straightforward and that students should learn to form opinions about their position that they can explain or defend with factual evidence. The students have been briefed on day 1 of the posting and the topic given by the Course Coordinator. The rules and regulations has been presented at start of the Debate session held in 4th week of posting, by the Chairperson TingSL. The speakers are allocated a total of 30 minutes per group strictly managed by the timer Chong KV. The 3 speakers each from the proposition and the opposition groups spoke, in alternate turns, to put across the message for or against the motion. A panel of 7 adjudicators scored the performances according to marking scheme template. The other two students did the photography and video documentation. The Best speaker and the Best group are awarded prizes. ALL others are also given participatory prizes; all prizes being sponsored by principal author. Conclusion is according to the winning team message that it is not yet timely to initiate HPV vaccination to boys presently in Malaysia, giving sound & concrete reasons and proposed primordial interventions.

Keywords: Classroom debate; HPV vaccination for boys; primordial interventions for boys.

INTRODUCTION

Vaccines against human papilloma viruses (HPV) have been freely available to girls in many countries for a decade. The vaccines have reduced the number of cases of HPV infection, which is expected to translate into fewer cervical cancer deaths in decades to come. (Vaccines today. Editorial Team,2018). Several countries, including Australia, Italy and Serbia, have decided to extend their national HPV immunization programs to boys. Experts believe this will reduce the spread of the viruses in the community and offer boys direct protection against head and neck cancers. Adolescent boys in the UK and Ireland will become the latest groups to benefit from HPV vaccination (Vaccines today, Editorial Team, 2018); (BMJ 2018). Presently, in Malaysia, the National Immunization Schedule includes HPV vaccination to girls at 13 years of age after parental consent.

Thus, a classroom Debate on “Boys should be given HPV vaccination also” had been conducted as a Teaching learning activity for Final year 5 students in Pediatric posting,

Rotation 2 group of 10 students. The aim of this activity is to foster learning with a unique learning strategy; to enable students to develop constructive arguments to support opposing views of the given topic; to encourage critical thinking; to raise students' awareness that most issues are not straightforward and that students should learn to form opinions about their position that they can explain or defend with factual evidence. (Soe-Soe-Aye & Noor MAM, 2018).

OBJECTIVE

The objective of this paper is to showcase the presentations made on this topic by the 3 speakers each for Pro and Oppo group and highlight the Discussion and Conclusions made upon the Debate session by the Faculty.

LITERATURE REVIEW

All the students and the Faculty did the literature review relating to topic given by Course coordinator on Day 1 of the posting Please refer to the List of the References

METHODOLOGY

All the 10 students (Batch 05/2014) posted to the Pediatrics ward in rotation 2 for 8 weeks, participated in the conduct of the classroom Debate session introduced as one of the Teaching Learning activities. The students elected their own Chairperson and Timer for the session and 3 speakers each for PROS and CONS of the topic given by Course coordinator on day 1 of the posting. Each one of them did a Literature review as evidenced by the list of References given. The rules and regulations for conduct of the Debate session and the marking scheme for grading of their performances are given in the students' guidebook. Seven adjudicators are the panel comprising of Associate Professors and Lecturers from the respective clinical Subjects at the Faculty of Medicine invited by the principal author.

FINDINGS (PRESENTATIONS)

The speakers spoke in turns, one from each group alternating with speaker from other group. However, the 3 presentations from each group are given as below.

PROPOSITION GROUP

1st speaker – Wong Kea Uu

“Do our child need the HPV vaccine to protect against the Human Papilloma Virus?”

The Centers of Disease Control and Prevention say a resounding “YES!”.

HPV is the most common sexually transmitted disease. According to Cancer Foundation in United States, every 20 minutes there is someone diagnosed as HPV related cancer. (Cooper, D. et al. (2018)) HPV was first discovered by a scientist named Harald Zur Hassan, who found that most of the cervical cancer are related to HPV type 16 and 18. (Splete, H. (2009)) After that, other scientists also discovered that not only cervical cancer, but anal, penile, oropharynx cancer and others are caused by HPV too. (Mechcatie, E. (2009) Their hard work has contributed to HPV vaccines production. Merck's first licensed HPV vaccine, GARDASIL, was approved in June 2006 for use in girls and women , 9 through 26 years of age, for prevention of HPV-related diseases caused by the four HPV types covered by the vaccine (Kmietowicz, Z. (2018)). HPV vaccine plays an important role in preventing several types of cancer and genital warts. A well-known quote says that, an ounce of prevention is worth more than a million pounds of cure.

According to CDC, there are over 100 types of HPV strains. If you are sexually active, you've probably gotten at least one of them, Dr Leone said. (Cooper, D. L., et al. (2018)) Among them, HPV type 6 and 11 are classified as low risk types, they usually cause genital warts that are non- cancerous. On the other hand, HPV type 16 and 18 are classified as high risks group, they commonly cause cancers. (Splete, H. (2009))

Do you all know how HPV is transmitted? It is through skin to skin contact, such as oral sex, anal sex and vagina sex. Everyone in the world have a right to enjoy their sexuality without fear of diseases. That means we need to know how to protect ourselves from sexually transmitted disease and how to avoid spreading of diseases to other people without giving up of sexual life.

Currently, there are 2 types of HPV vaccine that are available in the market, they are Cervarix, Gardasil which subdivided into Gardasil 4 and Gardasil 9. Cervarix covered HPV type 16 and 18, which mainly to prevent cancers. Gardasil 4 covered HPV type 6, 11, 16 and 18 that help us to protect from both genital warts and cancers. Gardasil 9 is the newest type of HPV vaccine which is already widely available in Malaysia, which covered 9 types of HPV, there are 6,11,16,18,31,33,45,52 and 58 which helps us to prevent most of the genital warts and cancers. (Splete, H. (2009)) A dollar spent on childhood vaccination not only helps to save lives, but also greatly reduces spending future healthcare. If there is a vaccine against cancers, wouldn't you like to give to boys too?

An issue that everyone is concerned is "is HPV vaccine safe to give to everyone? " As with all approved vaccines, CDC and Food and Drugs administration (FDA) closely monitor the safety of HPV vaccine to identify adverse effects and side effects. Pre-licensure clinical trials and data collected after vaccine was made available- show that it is very safe. Much of the information about HPV center and focus on women only, because everyone thought that having the virus increases their risks of getting cervical cancer only. But, it is totally wrong! HPV in men can cause health problems too! HPV infection can increase a man's risk of getting genital cancers, oral cancers and oropharynx cancers too.

According to CDC, males account for 40% of HPV related cancers. From a research done by HPV information Centre Malaysia, oropharynx cancer is the 2nd most common cancer caused by HPV infection following cervical cancers. (Splete, H. (2009) Cooper, D. L., Hernandez, N. D., & Zellner-Lawrence, T. (2018)) About 25.6% of oropharynx cancer is caused by HPV. The statistics from CDC showed that the averages number is 18,226 in United States. And everyone in the world has throat, not only women have cervix that need to protect against HPV infection, but throat as important as cervix too! Hence, isn't treating boys make medical sense as well?

The American Cancer Society estimates that about 6530 men was diagnosed as anal cancer that are related to HPV at 2017. (Bennett, K. E. (2015)) Squamous type anal cancer is usually caused by HPV type 16. Do you all know that LGBT (Lesbian, Gay, Bisexual and Transgender) is getting more popular nowadays? Jakim, the department of Islamic Development Malaysia said that, the estimation gay population in Malaysia is about 310,000(Tucker, M. E. (2011)) And, there are many countries have legalized same sex marriage such as gay marriage, such as Australia, Brazil, Sprain, Canada, Denmark, United States and so on. According to experts, the risks of anal cancer is about 17 times higher in homosexual man rather than heterosexual men. Despite the fact that HPV is the most common remain woefully unaware, with studies suggesting that only about 25% gay and

bisexual men are knowledgeable about the relationship between HPV infection and cancers. So, do you guys still think that HPV vaccine should not give to boys?

In addition, HPV appears to be an important risk factors for penile cancers. CDC came out with a statistic that showed there is 1269 men diagnosed as HPV related penile cancer on 2017. (Tucker, M. E. (2011)) In fact, HPV is found in about half of the penile cancers.

As a matter of fact, girls and women always visit gynecologists for pap smear as a screening for cervical cancers. In contrast, how many boys and man visit a doctor to look at their throat, anus or penile for cancers? The answer is no, none of them!

Furthermore, HPV type 6 and 11 are commonly causing genital warts in male. About 1 in 100 sexually active adults in the United states has genital warts at any given of time, said CDC. (Gulland, A. (2016). Genital warts, aren't always visible to human eyes, they may be very small with the color of skin or slightly darker. If you have a strain of HPV that causes these growth, you can pass it along to others during sex, even if you cannot pick up on warts, with your naked eyes. Genital warts on male can appear on penis, groin area, thighs, inside or around anus. Additionally, genital warts can also present at throat, tongue if the patient has oral sex with the infected person.

Using safe sex tools like condoms and dental dams is always a good idea. But this is not as effective against HPV as they are with other sexually transmitted infections, because of the matter of skin to skin contact. The areas that are not covered by condoms can be infected such as anus, scrotal, throat and so on. The condom failure rate is as high as 20%. (Hancocks, S. (2014) Would you get on a plane, or put your child on a plane where one out of five of the passengers will get killed? Well, the statistic holds same for condoms too.

You don't want your precious baby to get genital warts, do you?

You don't want your kids die from cancer, do you?

You're not a heartless baby killer, or are you?

In a nutshell, I strongly agree that HPV vaccine should be given to boys to prevents HPV related cancers and genital warts. Thank you!

2nd Speaker -Shangari

According to the center for disease control and prevention (CDC - Dec 17, 2018), every year in United States, over 13000 men get cancer caused by human papillomavirus (HPV). Approximately, 8 out of 10 people will get an HPV infection at some point in their lifespan. HPV infection can cause genital warts, oropharyngeal CA, and also anus and penile CA in men. Unlike cervical cancer in women, there are no recommended screening test for other type of cancer that HPV causes. Therefore, cancers may not be found until health problems arises. As we all know there are 3 types of HPV vaccines, which are Cervarix Gardasil4 & Gardasil9, which can actually help us to prevent HPV infections in both genders. My question here is even though both genders are at risk of getting ill, why there is a gender discrimination in providing vaccinations? Why are we only catering the HPV vaccine to females when boys are at risk as well? Men are not from Mars and women are not from Venus instead we are all people.

Cambridge dictionary define gender equality as both male and female gender have equal value and should be accorded equal treatment. Oxford, on the other hand emphasis that gender equality is a state which access to rights or opportunities is unaffected by gender. With this in mind, who are we to deny male's rights to get HPV vaccination. Even some of the research are suggesting that HPV vaccine helps to reduce the incidence rate of HPV

infection. National Cancer Institute is suggesting that HPV infection can be reduced about 88% with vaccination. (National Cancer Institute- May 16 2018). Please cross your heart and tell me. Choosing to provide the HPV vaccine only for girls, is this effectively sufficient in reducing numbers of risk? You just wish sometimes that people would treat you like a human being rather than seeing your gender first and who you are second.

Illness is beyond gender and it is wrong to deny the rights of others to stay healthy. Ignorance is a curse. We are willing to put our boys at risk when the HPV vaccination can prevent them from getting their infections and cancers. It takes two to tango. Both male and female deserve an equal opportunity to a healthy lifestyle. Why favouritism in the face of death? Why stand in the way when we can help both gender? All through life there were distinctions - toilets for men, toilets for women; clothes for men, clothes for women - then, at the end, the graves are identical. Every life matters!

Next we move on to my second point. Nowadays number of anti -vaccine group in Malaysia is rising. The anti - vaccine is a person opposing to vaccination, most usually a parent who does not wish to vaccinate their children due to their own reasons. You might wonder what anti vaccine do to with today's topic. Before I set out to explain, let me cite a statement from Perak Health Department's Director Datuk Dr Juita Ghazalie. Dr. Juita, revealed in parliament that in 2015-the number of anti- vaccine people was around 1500 but later in 2016, it increased to 1600. (The Star Online- 2 Sep 2016). Every year, a substantial amount of anti- vaccine group is increasing in Malaysia. There will be a dire consequence when more people deny to take vaccinations.

I would like to take this opportunity to highlight a recent outbreak that had happened in Malaysia. Recently, a 14 month-old female child died due to Diphtheria. The girl was not inoculated. She didn't receive any diphtheria immunization because of her family's decision to refuse immunization. The child died on October 15, 2018 due to Severe Diphtheria with multi-organ failure. (The Straits Times- 18 Oct 2018). We could have prevented the death of an innocent soul from happening just by giving vaccination. But we failed her with our ignorance and adamancy. This is merely an example of occurrence of bad events. The same sort of scenario could happen to another type of vaccine preventable diseases as well. According to Ezekial Emanuel, (Ezekiel Emanuel, M.D., Ph.D.- American oncologist and bioethicist) Vaccines are the most cost-effective health care interventions there are. A dollar spent on a childhood vaccination not only helps save a life, but greatly reduces spending on future healthcare.

As the anti- vaccine groups are growing, in future a lot more parents might act to the stop their kids from taking vaccines. This could precede to a much worse situation. We need to address this issue and discover ways to rebuild trust among parents on vaccination. We need to create awareness and advocate the importance of vaccinations. If people can refuse to take vaccine even though it is offered by the government for free, what will happen if they need to pay for it? Do you believe parents will bring their boys to get their HPV vaccines? Presently, our government is assisting girls who are 13 years old with HPV vaccinations for free. Along with awareness, we also need to provide vaccination for boys in order to wipe out the HPV infections. As per saying of William Foege (William H. Foege-American epidemiologist), Vaccines are the tugboats of preventive health.

In 1800s, smallpox vaccine was successfully introduced by Edward Jenner (Edward Anthony Jenner-physician) and years later Smallpox infection has been successfully eradicated

(History of anti-vaccination movement – 10 Jan 2018). . Even he faced anti- vaccine group at that time yet even managed to reduce smallpox infections to nothing. So by giving vaccinations for both genders, we can actually begin to remove the infection completely. The operation to completely remove HPV infections might take years, but at least our future generation can live without fear of sexually transmitted diseases such as HPV infections.

3rd speaker-Thiranraj

To start upon, Nelson Mandella once said that life or death for a young child too often depends on whether he or she is born in a century where vaccines are available or not. (Vaccines: All Things Considered- August 7, 2006)

A vaccination program me should target and stop transmission of live causative agent in order to prevent all associated disease. The striking flaw in HPV vaccination programs is the focus on prevention of cervical cancer. What has been overlooked is HPV infections are responsible for a range of non-cervical disease in both sexes that have serious morbidity and contribute to a substantial health care burden. HPV vaccination of boys alongside girls would facilitate the eradication of HPV and protect boys from infection, reduce transmission, increase herd immunity and effectively prevent HPV associated disease. Limiting HPV vaccination to girls will not lead to eradication.

Bill gates once said that, “Vaccines are a miracle, they’re fantastic. (The geeky wire interview by Todd Bishop On February 15, 2017). Anything that makes people hesitate to give their children these vaccines according to the recommended schedule creates risk. Risk for the children who don’t get vaccinated and the risk for children some of whom who don’t have a strong immunity.

Vaccination is not about only the individual getting vaccinated, it’s about everyone else in community. Therefore, my point here today is about herd immunity. Herd immunity is a form of immunity that occurs when the vaccination of a significant portion of a population (or herd) provides a measure of protection for individuals who have not developed immunity.’ (Vaccines Today, February 7th ,2015). Even individuals not vaccinated (such as newborns and those with chronic illnesses) are offered some protection because the disease has little opportunity to spread within the community

Each year in the U.S. there are about:

- 400 men who get HPV-related cancer of the penis
- 1,500 men who get HPV-related cancer of the anus
- 5,600 men who get cancers of the oropharynx (back of throat), but many of these cancers are related to tobacco and alcohol use, not HPV.

The above data was obtained from <https://www.cdc.gov/std/hpv/hpvandmen>.

HPV vaccination prevent Cancer. About 30,000 cases could be prevented with HPV vaccination every year. (CBS NEWS July 23, 2017). It is equivalent to average attendance of baseball game. (CDC March 26,2019) If boys are vaccinated, it enhances and will strengthen the herd immunity which is already provided by the vaccinated girls. Furthermore, it also directly helps in giving protection to anyone regardless of who is not vaccinated or under-vaccinated. The first country to provide vaccine for boys is Australia in 2013(Human papillomavirus vaccination for boys – Jan 2015.)

A study done by Kirby Institute at the University of New South Wales has shown that in 2012 the incidence of genital warts had decreased by up to 90 % among young sexually active people since HPV vaccination was introduced in 2007(Reader Digest Article). My

highlight is, by vaccinating, you are not only protecting yourself and your children but also people who are unable to be vaccinated. Treatment without prevention is simple but unsustainable. My next point is about usage of condom and its risk to HPV transmission.

Malaysia is the largest leading producer of latex condoms and home for biggest condom manufacturer (Durex article – august 3, 2016). However, statistic shows only 54 % of Malaysian uses protection when having sexual intercourse. (Durex Youth Survey 2018, May 08) This is due to many reasons, the most common reasons are wearing condom during sexual intercourse does not provide satisfaction and lack of sexual and reproductive information. Therefore, they tend to not use protections. Statistic shows 62% if individual believes they lack sufficient information in the topic (Durex Youth Survey 2018, May 08).

The reason behind lack of sufficient information on usage of condom among Malaysian has been clarified (New York times May 21 2007) where it stated that Malaysian government cannot openly advocate condom use to fight STI in this Muslim-majority country and must rely on voluntary group. the government “strongly believe “in the use of condoms to prevent the spread of STI said Jalal Halil Khalid, deputy director of Health Ministry’s unit on AIDS and STDs. (New York times May 21 2007) But some people may misinterpret us to be promoting promiscuity. So we cannot do it openly he said in an interview. (New York times May 21 2007) We in Malaysia have to take into account religious sensitivities.

There is a statement in a research paper by (Lwiner R, 2006) on the condom use and risk of genital HPV transmission in young women in 2006.it stated that male condom effectively reduces the risk of male – female genital HPV transmission but however, the risk and rate of transmission through skin to skin contact during sexual intercourse is higher because of genital warts transmission are through direct contact too. And according to CDC (CDC- November 16, 2017) before HPV vaccines were introduce roughly 340,000 to 360,000 women and men were affected by genital warts caused by HPV in US. Currently every year, approximately 19,400 women and 12,100 men are affected by cancer caused by HPV. Just a reminder for everyone these figures only look at the number of people who seek medical attention for genital warts. This could be an underestimate of actual number of people having genital warts. It is just the tip of the iceberg phenomenon.

CDC recommends that if you are sexually active:

- Use a latex condom the right way every time you have sex. This can lower your chances of getting HPV. But HPV can infect areas not covered by condom so condoms may not fully protect against getting HPV.
- Be in a monogamous relationship.

Finally, for my fellow opposition candidate, is there any statistical data showing the amount of boys who will go for routine screening or check up for HPV? Or is there any screening programs available for boys? Do you want to live in fear every time you had sexual intercourse with your partner? Isn’t this a good reason for HPV vaccination for boys.

To sum up, our main intention is to reduce transmission of HPV that can cause comorbidity and serious health care burden. Therefore, HPV vaccines is a must for a boy also to prevent its complication at the eleventh hour. Time to change our self. Protect our children by vaccinating.

OPPOSITION TEAM

1st speaker -Teoh

I would like to start my point of view by defining our topic today.

BOYS defined by Oxford Dictionary mean A male child or youth, especially a young one. The word 'GIVEN' by Oxford Dictionary meant freely transfer the possession of (something) to (someone)

The word 'ALSO' by Oxford Dictionary means in addition; too.

Therefore, the topic as a whole, because of the word 'ALSO', the HPV vaccination mentioned here refers to "cervarix" which covers HPV strain 16 and 18 only, which given to girls at age of 13, free of charge, should be given to boys with free of charge as well

HPV infections is one of the most common Sexually Transmitted infections all over the world. There are more than 130 subtypes of HPV and about 70 subtypes infect human. Out of these, about 40 different genotypes of HPV can infect the ano-genital area in men and women. These have been classified into high-risk and low-risk genotypes indicating their level of association with cervical cancer. Based on molecular biological and epidemiological studies, the genital HPV types are classified as follows: **i) High Risk:** HPV types 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59 **ii) Probable High:** HPV types 26, 53, 66, 68, 73, 82 **Risk iii) Low Risk :** HPV types 6, 11, 40, 42, 43, 44, 54, 61, 70, 72, 81, CP6108 (from Health Technology Assessment section Medical Development Division Ministry of Health Malaysia 008/2011.)

From the literature review done through the books, reliable web resources like CDC, Malaysia HPV information center, HPV is transmitted mostly through sexual contact.

From Malaysia HPV information Centre, HPV related cancer incidence of cervix uteri is 15.6% compared to ano-genital which include vulva, vaginal, anal and penile is 0.6% and head and neck (oropharynx, oral cavity and larynx) is 0.2%. (Human Papillomavirus and Related Disease Report, 2018). I would like to request help from the floor, to help me evaluate, whether a total of 0.8% or a 15.6% is of greater significance.

In view of that, instead of covering boys with a less beneficial vaccine, it is more logical and sensible to cover more girls with the vaccine when there is strong evidence showing its greater value.

This is further supported by a study done in Germany in 2017 on cost-effectiveness of HPV vaccination, concludes that the quadrivalent vaccine is better than the bivalent vaccine due to the additional impact on genital warts. (Oliver Damm et al, 2017) And the additional vaccination of boys resulted in Incremental cost-effective ratios (ICERs) exceeding €50,000 per QALY which exceeding the NICE (national institute for health and care excellence) threshold of about €25,700 (McCabe C and Claxton K., 2008) Cost effectiveness of additional vaccination in boys was highly dependent on coverage in girls, to put it clearer, it is only significant when the coverage of HPV vaccination of girls is low. This further supported by the Systematic review of cost-effectiveness studies of human papillomavirus (HPV) vaccination: 9-Valent vaccine, gender-neutral and multiple age cohort vaccination done in 2018, (Said Aljunid et al, 2016) where Thirty-four studies were included in the review and most of them were conducted in high income countries. The inclusion of adolescent boys in vaccination program was found to be cost effective if vaccine price and coverage was low. When coverage for female was above 75%, gender neutral vaccination was less cost-effective than when targeting only girls aged 9–18 years. And the current coverage of HPV vaccination in Malaysian 13 years old girls is more than 80%, (Saidatul N Buang et al, 2018).

Cost of vaccine: Current per dose of the vaccine cost is MYR 180 in LPPKN. 3 doses = RM540. (Phone call to LPPKN Muar at 06-9514159).

In 2017, from the record of Department of Statistics Malaysia, the population aged 10 -14 in Malaysia is 2,580,800 (1,324,900 males and 1,255,800 females). Pardon me as I am not a professional in epidemiology, Let us use some simple and logical mathematics, take 1/5th of the population which is 516,160 to represent the specific age group which is 13 y/o, the cost to cover both female and male is MYR278,726,400. If cover with Gardasil the number will be doubled, at least.

According to the Malaysia Budget 2019 issued by the Ministry of Finance Malaysia, there is an allocation of RM20 millions (RM20,000,000) to provide free mammogram screening, HPV vaccinations as well as Pap smear tests, to benefit up to 70,000 women. I thank our government for the effort in empowering women's health and wellbeing. However, in the statement, there is no mention of men/boys/XY chromosome. Do you think that our government is sexist? No, I strongly believe that our government are formed by great persons with high intelligence and dedication towards all people in our country regardless of their race, religions and gender. As such, I believed, they have done numerous studies and trials and reviewed on those done worldwide, to come to a conclusion that giving HPV vaccination to boys are not cost-effective and the allocation should be put for projects that yields the best outcome for the people. For example, vaccine catch up program MyHPV program which already on the go for almost 7 years in Malaysia. Even so, the quota for free HPV vaccination for catch up program from LPPKN is limited to only 9000 women nationwide, on first come first serve basis that fits criteria. (My HPV 2019 program, 2019).

2nd speaker - Sham

First and foremost, I would like to let you know that even though it can be transmitted by skin to skin contact as said by the preposition team however the main mode of transmission of HPV is via sexual contact. One of the controversy regarding the HPV vaccine is there is a concern that it will lead to promiscuity among the teenagers. This is because the vaccine encourages a belief that since it prevents Sexually Transmitted Diseases, it is safe for teenagers to have unprotected sexual intercourse. As a result, it increases the rate of unprotected sex among the teenagers. However, we should know that HPV vaccines don't protect against other sexually transmitted infections (STIs) or treat existing HPV-related illnesses or infections. In the end, to prevent other Sexually Transmitted Infections such as syphilis, chlamydia, gonorrhoea, herpes, hepatitis B, pelvic inflammatory disease, bacterial vaginosis, candida and human immunodeficiency viruses(HIV), you will still need to use condom as a protection during sexual intercourse. In addition, I would also like to emphasize that a proper sexual education among teenagers also plays an essential role in preventing STIs.

Well, talking about STI, I would like to raise a question on how STI such as syphilis and chlamydia is treated? We will give antibiotics as our first line of treatment. If there's increase in rate of incidence of STI, it will eventually lead to increase use in antibiotic use. When there's increase in use of antibiotics, it will cause more incidence of antibiotic resistance in our community and create more and more superbugs? Do you know what is "superbug"? "Superbug" is a term used to describe strains of bacteria that are resistant to majority of antibiotics that are commonly used nowadays. Well, in addition, let me give you a simple scenario to visualize my point. Let's say that the government has administered HPV vaccine to all the boys and girls at the appropriate ages, we have prevented 100% of HPV transmission, right? Perfect, Kudos to the government. But mind you as you are forgetting that there will be significant increase in other sexually transmitted infection such as HIV which can be fatal to a person. Well, can you see that there's a domino effect going on here? I

bet you can now. So do you really think that the government has done a good deed to the community by giving HPV vaccination to the boys?

Besides increasing the STI rate, increased rate of unprotected sex also can lead to significant increase in many social issues. To name a few, there are single mother issue, underage marriage, teenage pregnancies and abandon babies. And a baby is not something that you can apply 3Rs on. Do you know what is 3Rs or not? Let me take the opportunity to tell u what is 3Rs. 3Rs are Reducible, Reusable and Recycle. At this very moment, I would also like to share a news reported in Guang Ming Daily on 22nd June 2010, which stated that a nine years old girl in Penang who allegedly gave birth in a hospital after having sexual intercourse with her 14 years old neighbor. Not only that, another survey namely the Adolescent Health Survey done by Public Health Institute in 2017, where 27,497 students from 212 schools nationwide in Malaysia were involved, reported that 16.6% of teenagers were discovered to have sexual intercourse with at least two partners. Meanwhile, of those who had sex, 31.9% had their first sexual experience before the age of 14. That's really young! Those have shown how young can a person start to have sex with one or more partners. I think these two examples have shown clearly that how young a person starts to have sexual intercourse with one or more partners. So, do you dare to take risk of giving the wrong impression to the community that the vaccine can prevent STDs and at the same time increasing the rate of social problems in our nation?

Think again and reconsider the points that I have put forward for your thinking. Thank you to the members of the floor for your kind attention and time.

3rd speaker –Lew

Before I proceed, I would like to clarify for my team. We are not anti-vaccine, we are not money minded, we are not discriminating male and even we are not willing to ignore the significance of HPV infection among Malaysian. However, we only disagreed with HPV vaccine given to boys because it is inappropriate to give the vaccine to boys. At least now we are still not ready to implement this policy yet. All this while, we are trying to tell everyone why is it not suitable to give HPV vaccine to boys. So does it mean, we are going to ignore it? Now I will like to give a better solution for all the issue that has been raised by proposition team. So what are the most important measure we still do without delay is to implement a primordial prevention which is not only effective toward HPV infection but also to other kind of STIs which is implement sex education. Recently, I had come across a survey which you all will feel shocked and stunned to know the facts. According to perspective's Malaysian Youth Reproductive Health Survey in 2015 which supported by Ministry of Health show that up to 35% of Malaysian female youth believe having sex for first time does not lead to pregnancy. One in five Malaysian believed that STIs could be transmitted by mosquito. For those, who still have doubt on this, mosquitos only inject their saliva to human. Because blood is too precious for them as they need the protein and iron found in blood to make their eggs. They will not simply waste their effort by injecting human blood into other individuals. Up till now, you will feel sad to know that how poor is the knowledge about sex among Malaysian. Besides that, in the survey the statistic shows that around 14 in 1000 underage girl (<18 years old) in Malaysia fall pregnant every year which adds up to an average of 18,000 girls per year. You might think that 14 in 1000 is just a small figure but how about other country? For example, in Singapore, the rate is 4 in 1000 underage girls and Hong Kong is at 3 out of every 1000. Yes, Malaysia is not the highest incidence rate country which Bulgaria has the rate of 42 in 1000 underage. But trust me, if we don't start to fix this eventually we will be at the first place. Not only this, STIs doubled in the past decade with syphilis doubling

from 2.99/100,000 to 6.5/100,000 in 2017(Satpal Kaler; The Star – April 2018). Let me tell you, where does Malaysian used to learn about sex education. Yes, the only source you can think of, Internet! And they will not surf from the education website but from their friends who they get to know online or from video. Let's assume the information or the knowledge they learnt is proper and correct but they only learnt how to have sexual intercourse and nothing about reproductive health, nothing about birth control and most important they do not think they have the responsibility for what they might encounter for. The major cupric behind this is culture taboos which prevent many Asian parents from talking about sex education to their children. The mind set of Asian is when we talk about sex education is like telling how to have sexual intercourse. In 2010, Kelantan Menteri Besar Datuk Nik Abdul Aziz Nik Mat was reported in The Star saying that teaching sex education would be like teaching a thief how to steal and that will encourage children to learn about sex among themselves. Resulting in negative incidences such as unwanted pregnancies and baby dumping. Just for your information, Kelantan has the highest incidences rate of underage pregnancy in Malaysia. With all this evident, I really think that we should not delay any more of implement sex education in Malaysia before it is under controlled. As for now, in our primary and secondary education, we can only find in form 3 science syllabus about sex education and it is only about their body and biological facet of child making. With all these insufficient knowledge regarding sex, education, I believe it will just create curiosity for them on sex education which they will end up surfing in the internet. Try to imagine, if we set sex education as one of the core subject in primary and secondary education, we are able to kill all the curiosity and implement a proper knowledge about sex education. After all these efforts, it is most likely, their after school topic will be on mathematics, language or probably geography instead of improper sex knowledge. Lastly, I would like to say that, we are not that stubborn after all, we do not fully deny to the benefit of HPV vaccine but we should all understand and agree that, HPV vaccine for boys should not be implement at least for now or probably for the next 5 years. There are a lot more we should do in order to prevent the HPV transmission such as the primordial prevention that I have explained. In fact, we should improve the vaccine given to girl and herd immunity among the female population before we start implements a premature move of giving vaccination to boys. With all these, I would like to end my presentation. Thank you.

DISCUSSION

Each of the 3 speakers from each of the 2 groups have presented the messages to support their side of the motion. All of them have done their level best not only in presenting facts and figures and their sources but their attire, usage of words, intonation at time of delivery at the Debate are commendable.

The members of the panel of adjudicators had a tough time deciding which one of the six speakers is the best and also which group is the winner of this debate session.

Table 1. Scores of the six speakers by 7 adjudicators

Adjudicators	P1	P2	P3	O1	O2	O3
1.	80	76	84.5	82.5	76	85
2	69	68	63	72	62	59
3	84	69	76	86	68	75
4	68	67	79	74	71	86
5	75	59	75	81	62	62
6	74	79	71	66	58	71
7	64	75	88	68	82	94
Total score	514	493	536.5	529.5	479	532

Best Speaker: Mr. Thiran Raj A/L Ramiah

Table 2. Scores of Proposition and Opposition groups by 7 adjudicators

Adjudicators	Proposition Group	Opposition Group
1	240	244
2.	227	244
3	224	195
4	314	351
5	209	205
6	200	193
7	229	231
Average score	235	238

Best Group: Opposition group consisting of the speakers: Mr Teoh Shun Keat, Ms. Shamala Devi A/P Vellasamy and Mr Lew Chin Hong

The Best Speaker had emphasized that,

(1) the striking flaw in human papillomavirus (HPV) vaccination programs is the focus on prevention of cervical cancer. What has been overlooked is that HPV infections are responsible for a range of non-cervical diseases in both sexes that have serious morbidity and contribute to a substantial healthcare burden.

(2) **Boys**, like girls, should get the two doses of the **HPV vaccine** at age 11 or 12 to protect against cancer-causing **HPV** infections long before they are ever exposed. The **HPV vaccine** series can be started as early as age 9, and should be finished before **boys** turn 13 years old. **Men** are as susceptible to **HPV** infection as women and **vaccination** provides a high level of protection against the most dangerous **HPV** types that cause cancer, genital warts or **RRP**. **Vaccination** offers protection against infection for at least 10 years and probably for much longer. Herd immunity obtained by vaccinating only women is likely to be insufficient to eradicate the targeted HPV types

(3) Taken together, although the evidence is limited due to the small number of studies, it was concluded that vaccinating boys before the onset of sexual activity is a powerful and safe measure to prevent HPV infection and HPV-related precancerous lesions.

(4) Beyond scientific impact, the work had direct consequences for the vaccination schedule in Germany. The results of the systematic review were used by the German Standing Committee on Vaccination (STIKO) to decide on a recommendation for HPV vaccination of

boys which was published in June 2018. In Germany, vaccination against HPV is now recommended for all boys and girls aged 9–14 years.

However, the Winner of this Debate has been OPPO group.

Each of the 3 speakers have put across the facts on why Boys should not be given currently and to enforce Primordial Interventions. The speakers have emphasized that,

- (1) There is currently no robust evidence to justify the expense and effort of vaccinating boys with existing HPV vaccines either in developed or developing countries. To do so would constitute a misuse of resources and a diversion from what should be the primary objective—vaccinating as many young girls as possible
- (2) Evidence on efficacy and effectiveness of HPV vaccination in males is particularly scarce regarding oral infections; only one RCT with a small number of events and one small observational study with a high risk of bias reported

CONCLUSIONS

HPV vaccination of boys alongside girls would facilitate the eradication of HPV and protect boys from infection, reduce transmission, increase herd immunity, and effectively prevent HPV associated diseases. Limiting HPV vaccination to girls will not lead to eradication: as emphasized by the Best Speaker.

However, the most consistent conclusion of the cost effectiveness evaluations is that vaccinating males provides only small additional benefit and is not cost effective, especially if female programmes obtain high (>75%) coverage. Such coverage rates are achievable—over 80% of adolescent girls have taken up the vaccine in national programmes in Australia and the UK. Inclusion of males could be justified only if there were significant population benefits. This is not the case as emphasized by the Best Group.

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