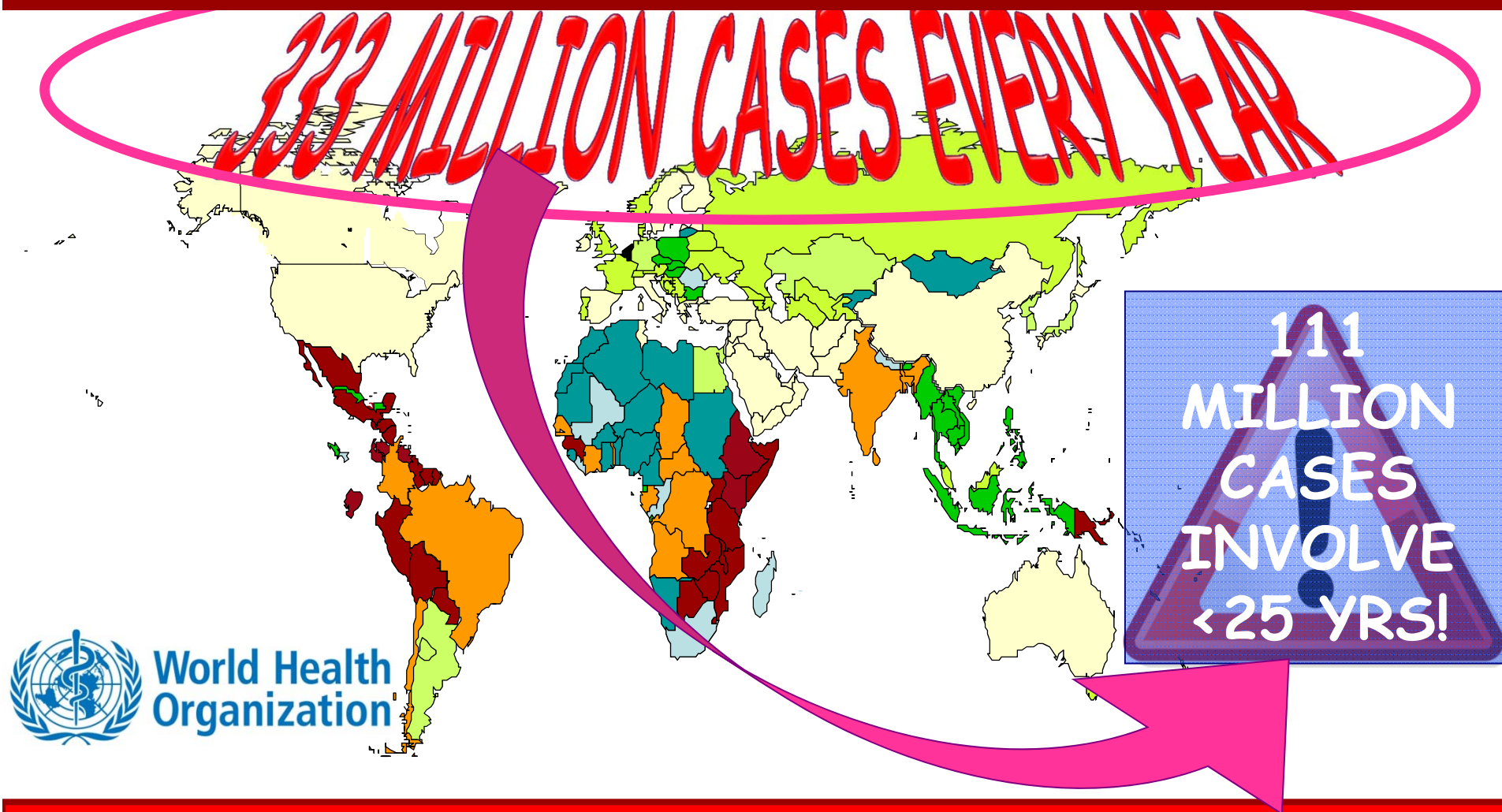


“Riflessioni su comportamenti a rischio e salute riproduttiva”



SERGIO PECORELLI

STD: DIMENSION OF THE PROBLEM



DESPITE ADOLESCENTS MAKE UP ONLY ABOUT 20% OF THE WORLD POPULATION, OF WHOM 85% LIVE IN DEVELOPING COUNTRIES, THEY ARE RESPONSIBLE FOR NEARLY HALF OF ALL STIs PROBABLY BECAUSE THEY FREQUENTLY HAVE UNPROTECTED INTERCOURSE

SEXUALLY TRANSMITTED DISEASES

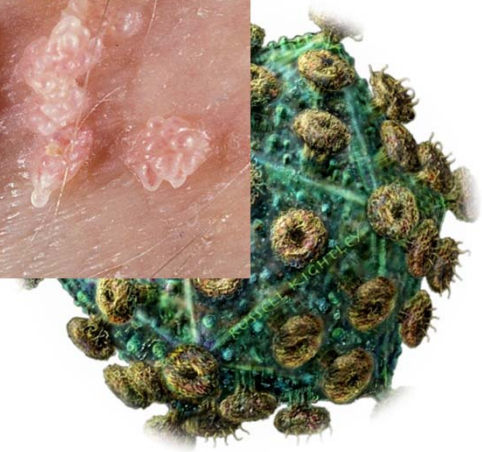
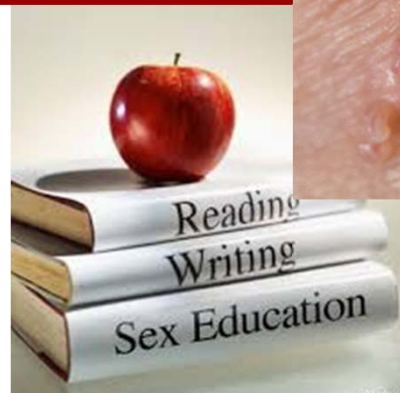
- **EPIDEMIOLOGY**

CHLAMYDIA, GONORRHOEA, SYPHILIS,

HIV, HPV, HERPES

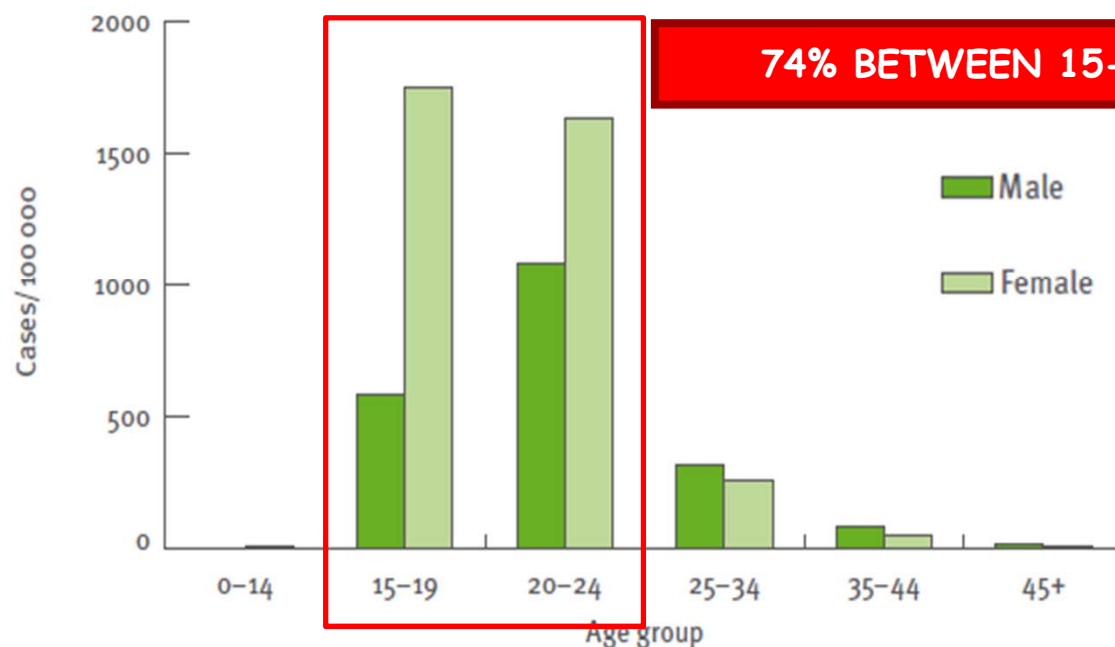
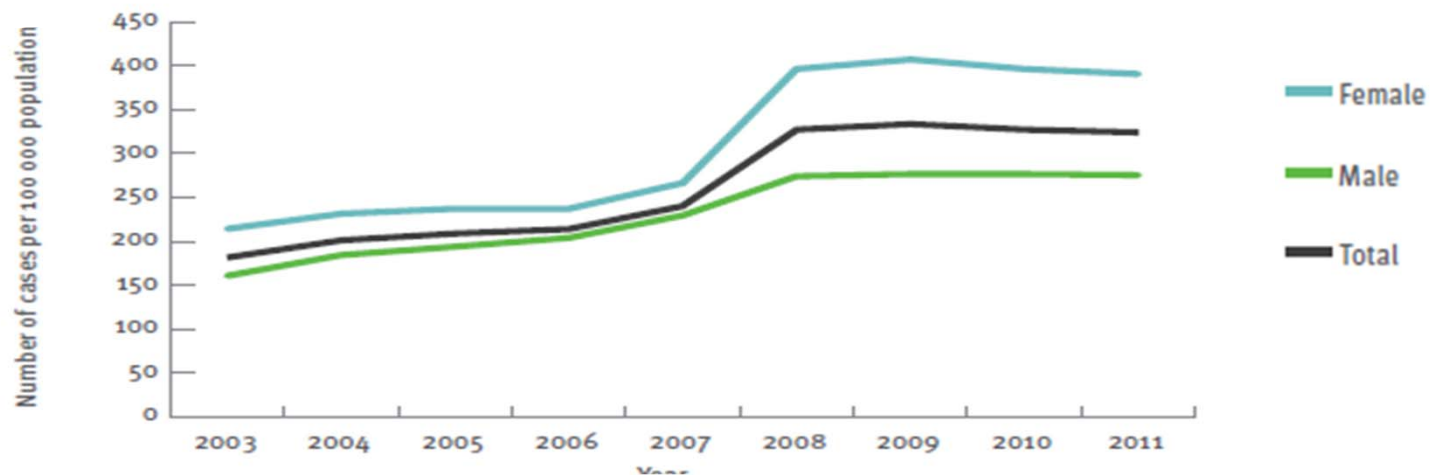
- **SEXUAL HEALTH & PREVENTION**

VACCINATION, LIFESTYLE, EDUCATION



CHLAMYDIA

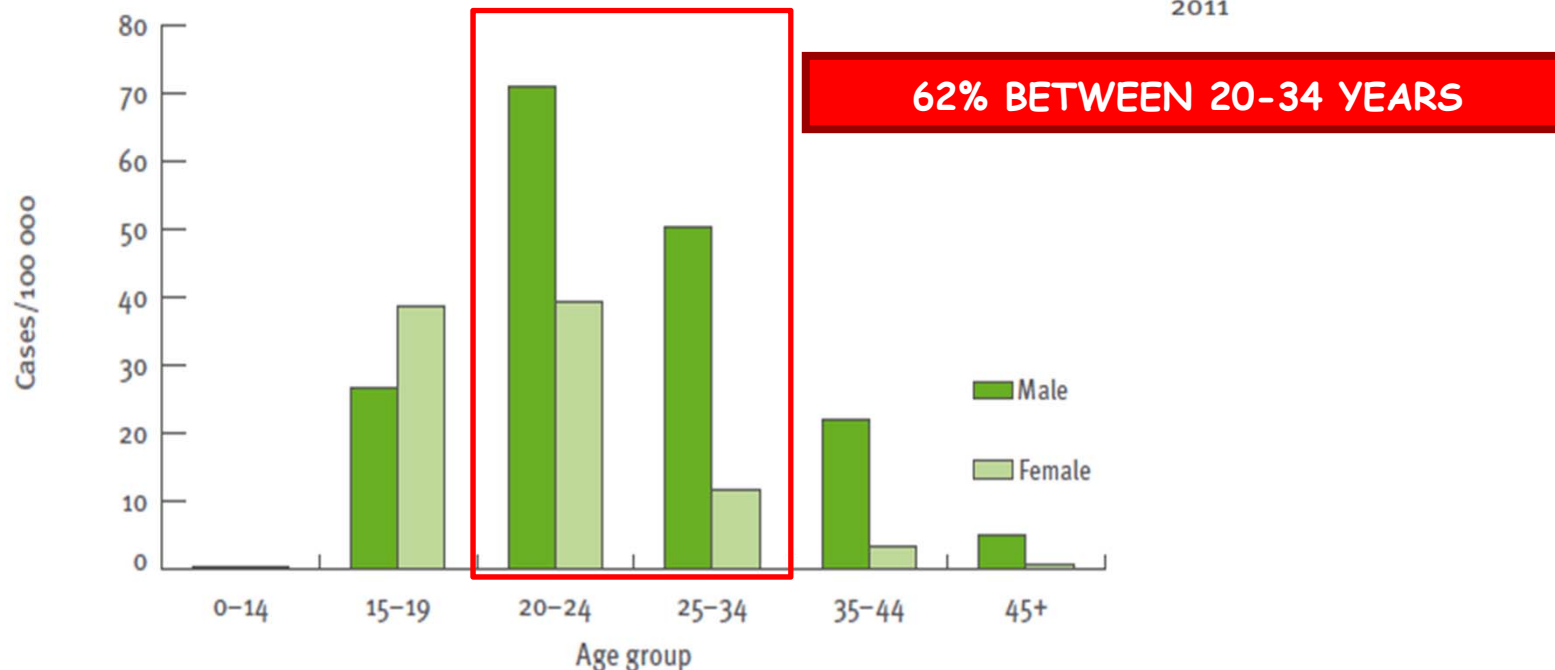
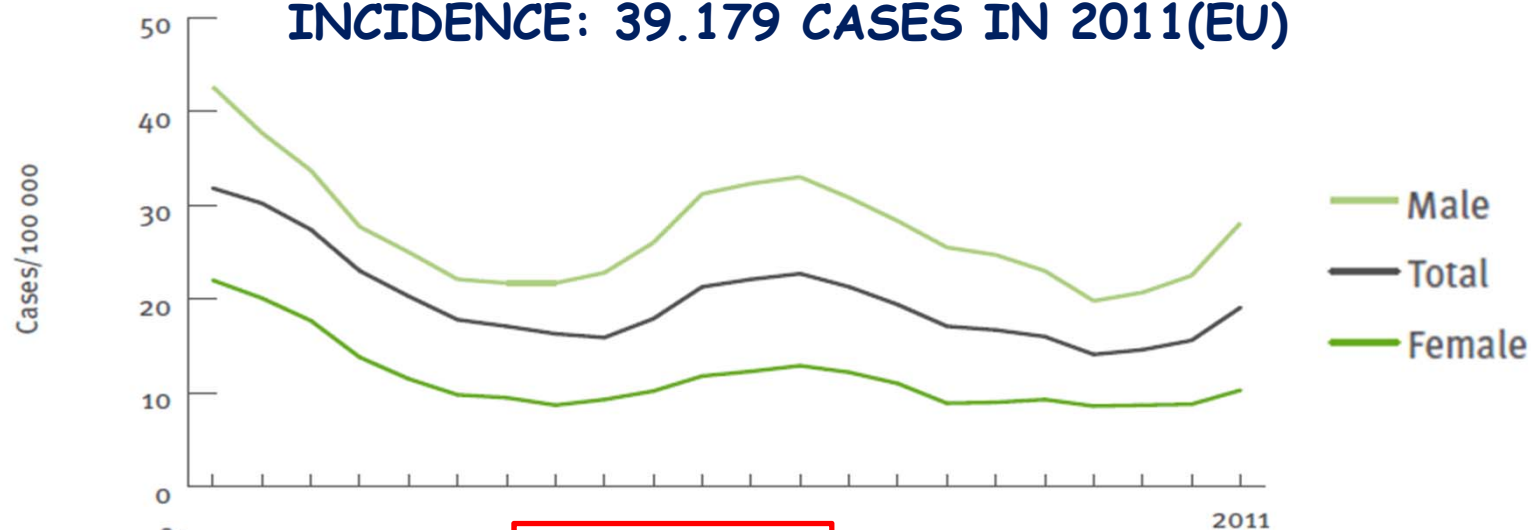
INCIDENCE: 350.000 CASES IN 2011(EU)



74% BETWEEN 15-24 YEARS

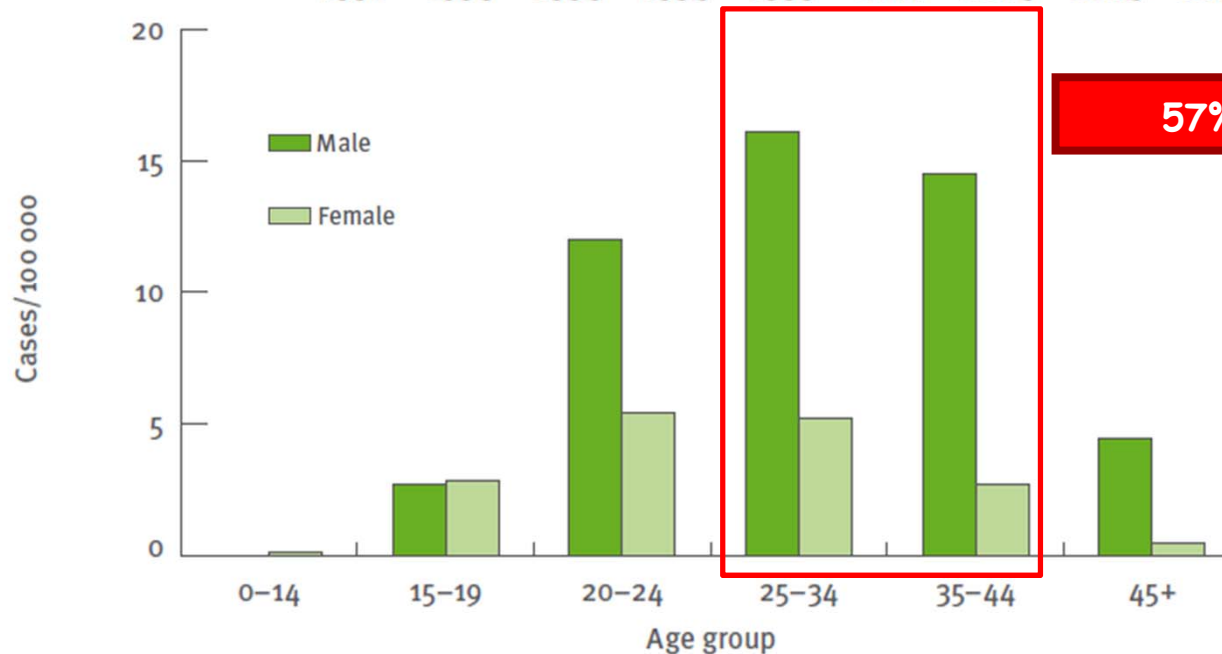
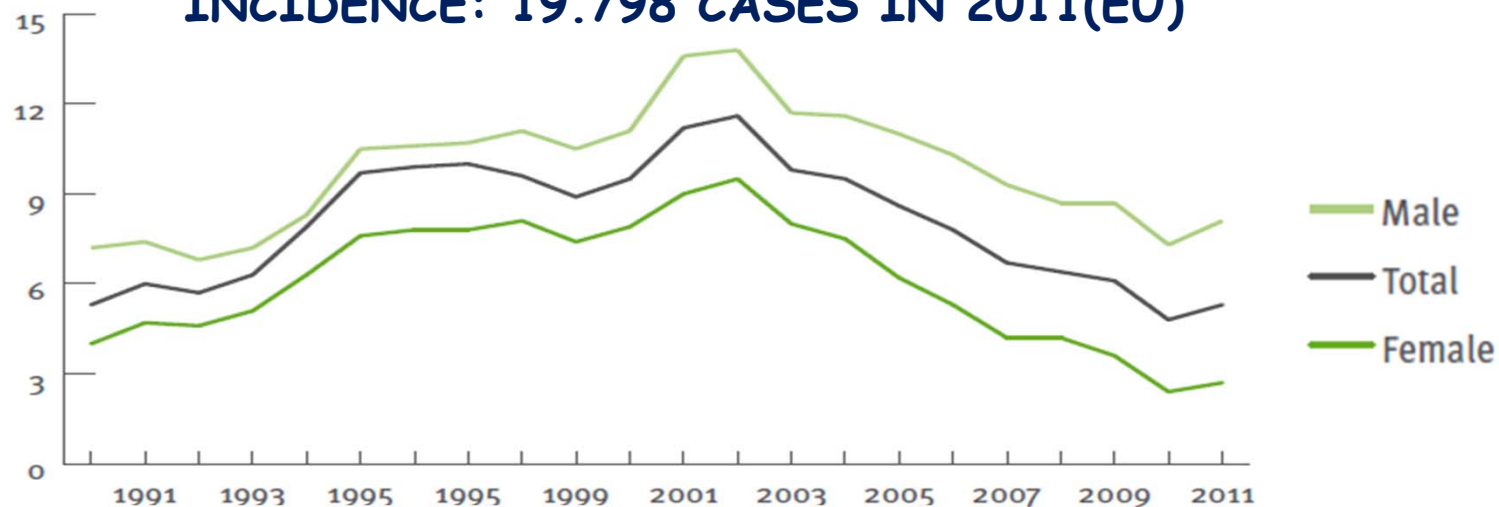
GONORRHOEA

INCIDENCE: 39.179 CASES IN 2011(EU)



SYPHILIS

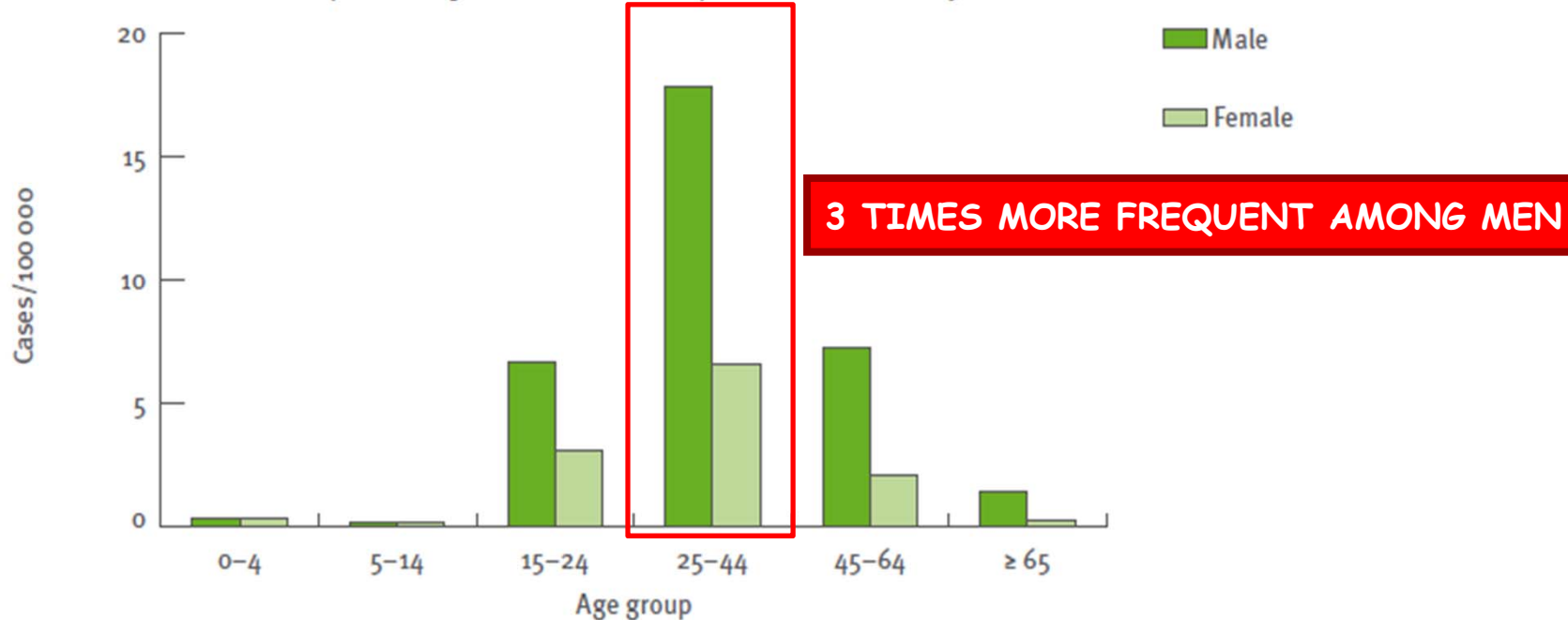
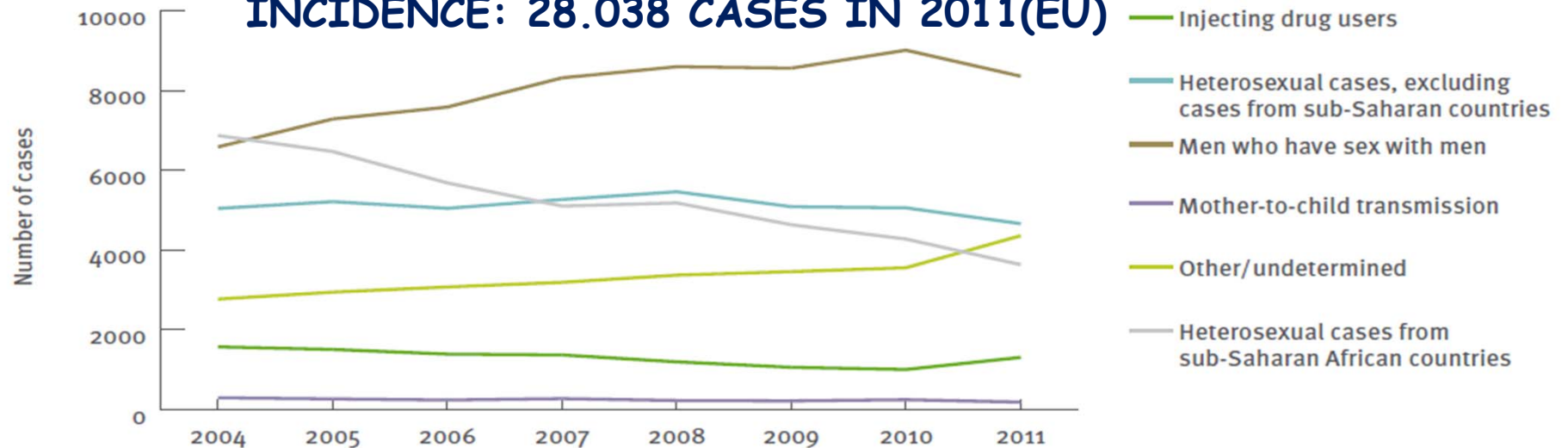
INCIDENCE: 19.798 CASES IN 2011(EU)



57% BETWEEN 25-44 YEARS

HIV

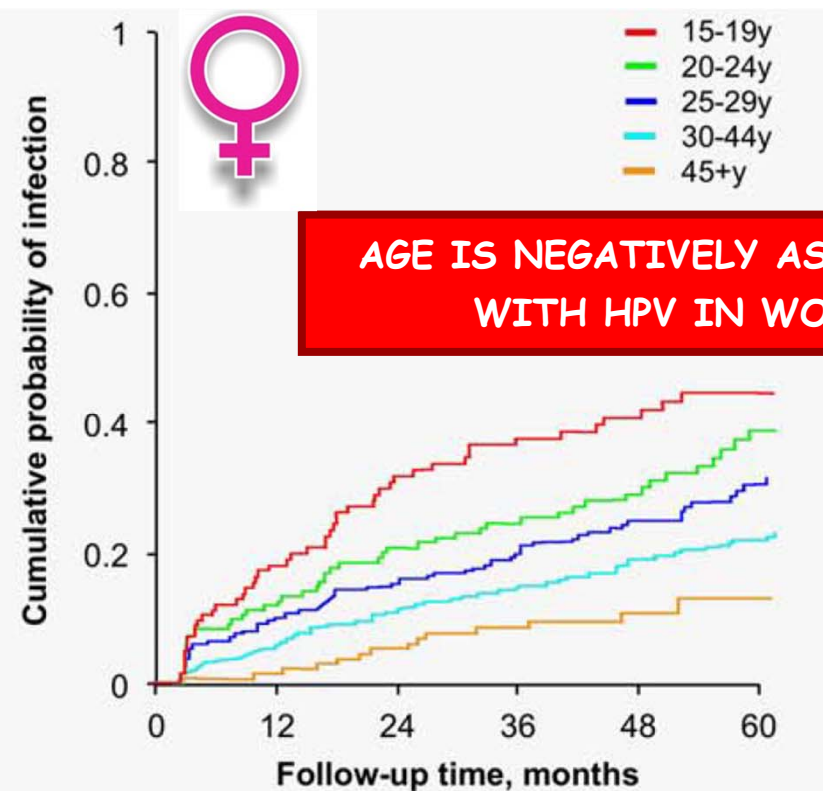
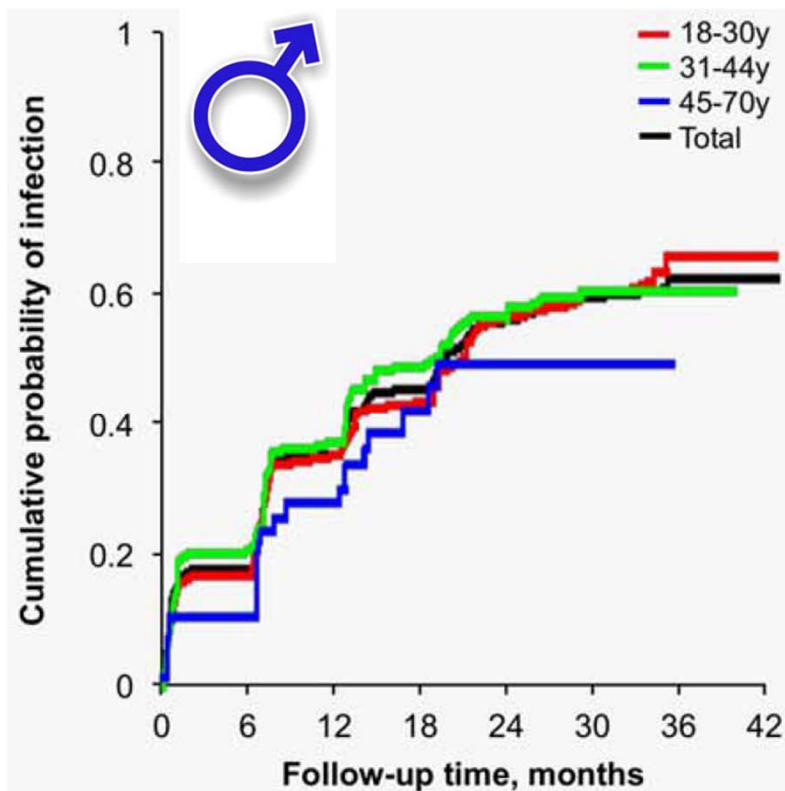
INCIDENCE: 28.038 CASES IN 2011(EU)



HPV

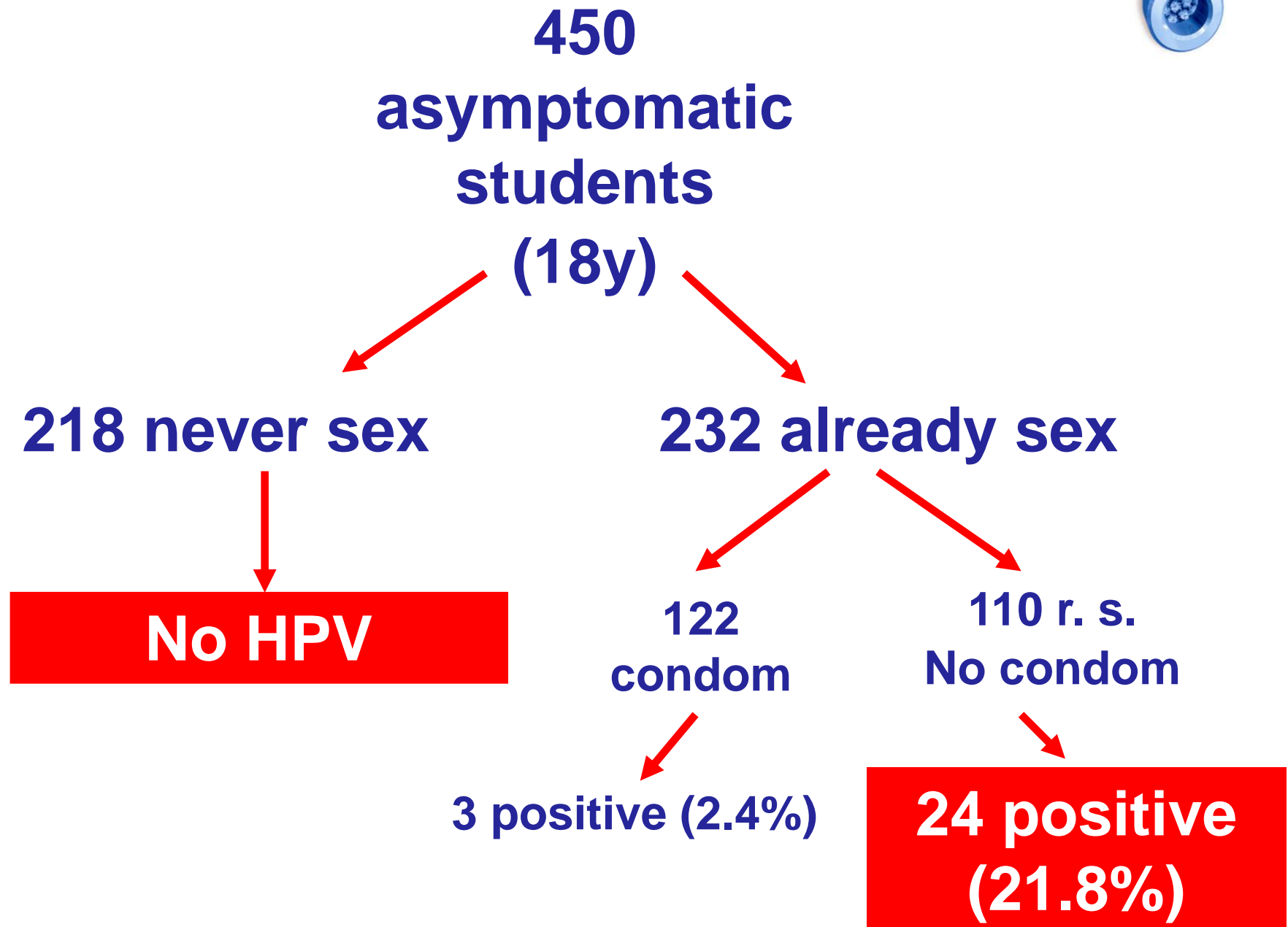
PREVALENCE: 6,6% WITH NORMAL CITOTOLOGY IN EU

GENITAL HPV INCIDENCE AMONG MEN AND WOMEN BY AGE



**AGE IS NEGATIVELY ASSOCIATED
WITH HPV IN WOMEN**

HPV in SEMEN





Mechanism of Human Papillomavirus Binding to Human Spermatozoa and Fertilizing Ability of Infected Spermatozoa

Carlo Foresta^{1*}, Cristina Patassini¹, Alessandro Bertoldo¹, Massimo Menegazzo¹, Felice Francavilla², Luisa Barzon³, Alberto Ferlin¹

1 Section of Clinical Pathology and Centre for Male Gamete Cryopreservation, Department of Histology, Microbiology and Medical Biotechnologies, University of Padova, Padova, Italy, **2** Andrology Unit, Department of Internal Medicine, University of L'Aquila, Coppito (L'Aquila), Italy, **3** Section of Microbiology and Virology, Department of Histology, Microbiology and Medical Biotechnologies, University of Padova, Padova, Italy

Abstract

Human papillomaviruses (HPVs) are agents of the most common sexually transmitted diseases in females and males. Precise data about the presence, mechanism of infection and clinical significance of HPV in the male reproductive tract and especially in sperm are not available. Here we show that HPV can infect human sperm, it localizes at the equatorial region of sperm head through interaction between the HPV capsid protein L1 and syndecan-1. Sperm transfected with HPV E6/E7 genes and sperm exposed to HPV L1 capsid protein are capable to penetrate the oocyte and transfer the virus into oocytes, in which viral genes are then activated and transcribed. These data show that sperm might function as vectors for HPV transfer into the oocytes, and open new perspectives on the role of HPV infection in males and are particularly intriguing in relation to assisted reproduction techniques.



Human papillomavirus infection in couples undergoing in vitro fertilization procedures: impact on reproductive outcomes **A. Perino et al.**

A prospective study was performed to assess the relationship between human papillomavirus (HPV) infection in 199 infertile couples and outcome of assisted reproductive technologies (ARTs). A highly statistically significant correlation between pregnancy loss rate (proportion of pregnancies detected by β -hCG that did not progress beyond 20 weeks) and positive HPV DNA testing in the male partner of infertile couples, compared with HPV negatives, was observed (66.7% vs. 15%). (Fertil Steril® 2011;95:1845–8. ©2011 by American Society for Reproductive Medicine.)

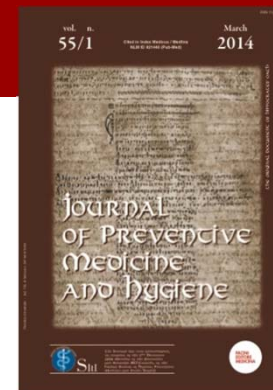
Key Words: Abortion, ART, HPV infection, infertility, pregnancy loss

EDUCATION

Risk perception of sexually transmitted diseases and teenage sexual behaviour: attitudes towards in a sample of Italian adolescents

M. BERGAMINI¹, A. CUCCHI², E. GUIDI¹, A. STEFANATI¹, B. BONATO¹, S. LUPI¹, P. GREGORIO¹

¹Department of Medical Sciences, Branch of Hygiene and Occupational Medicine, University of Ferrara, Italy; ²Department of Hygiene, Public Health Local Unit of Ferrara, Italy



PERCEPTION OF SEXUALLY TRANSMITTED DISEASE

Disease	Total		Gender				Year of attendance			
			Males		Females		2 nd		5 th	
	yes	no	yes	no	yes	no	yes	no	yes	no
Rabies	18,9	81,1	22,4	77,6	16,3	83,7	19,0	81,0	18,8	81,2
Candidiasis	65,5	34,5	48,9	51,1	77,1	22,9	50,5	49,5	78,5	21,5
Pediculosis	16,8	83,2	20,9	79,1	13,7	86,3	19,8	80,2	12,5	87,5
Botulism	11,6	88,4	17,7	82,3	7,1	92,9	17,0	83,0	6,3	93,7
Flu	25,9	74,1	32,5	67,5	21,0	79,0	28,0	72,0	25,4	74,6
Tetanus	27,8	72,2	31,4	68,6	24,7	75,3	30,1	69,9	25,3	74,7
Leptospirosis	37,8	62,2	42,5	57,5	33,9	66,1	46,0	54,0	26,9	73,1
Cholera	32,8	67,2	37,7	62,3	29,0	71,0	38,8	61,2	29,3	70,7
AIDS	98,9	1,1	98,5	1,5	99,3	0,7	98,2	1,8	99,7	0,3
Herpes	69,1	31,0	67,1	32,9	70,4	29,6	62,0	38,0	74,2	25,8
Salmonellosis	24,2	75,8	29,3	70,7	20,4	79,6	28,0	72,0	18,6	81,4
Hepatitis A	72,0	28,1	71,6	28,4	72,0	28,0	73,2	26,8	70,1	29,9
Chickenpox	26,1	73,9	30,3	69,7	23,0	77,0	30,3	69,7	25,1	74,9
Hepatitis B	74,6	25,4	70,9	29,1	77,3	22,7	73,0	27,0	78,0	22,0
Parkinson's disease	4,0	96,0	5,5	94,5	2,9	97,1	4,8	95,2	2,4	97,6
Measles	28,8	71,2	33,2	66,8	25,5	74,5	31,8	68,2	28,6	71,4
Down's syndrome	8,1	91,9	10,0	90,0	6,6	93,4	11,3	88,7	5,1	94,9

SEXUALLY TRANSMITTED DISEASES

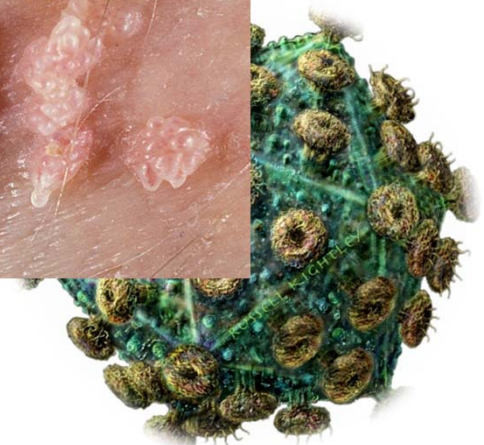
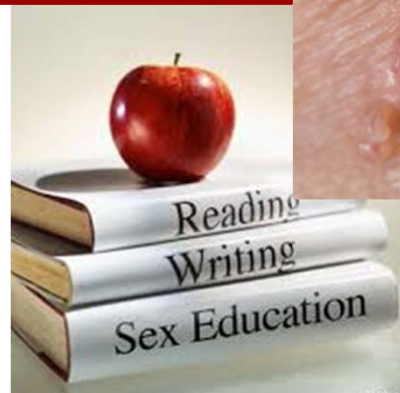
- **EPIDEMIOLOGY**

CHLAMYDIA, GONORRHOEA, SYPHILIS,

HIV, HPV, HERPES

- **SEXUAL HEALTH & PREVENTION**

VACCINATION, LIFESTYLE, EDUCATION



SEXUAL HEALTH DEFINITION

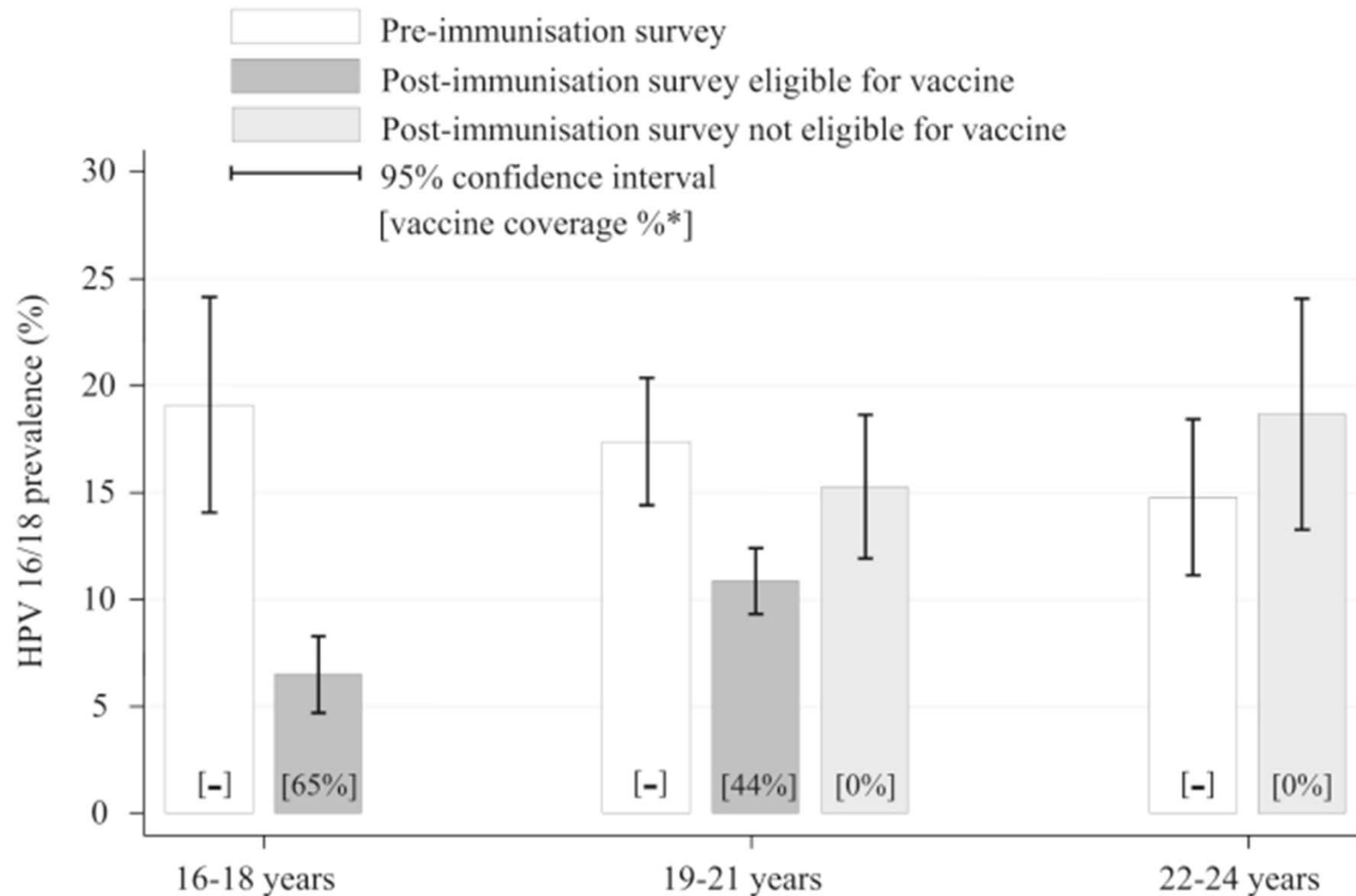


World Health
Organization

"A state of physical, emotional, mental, and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction, or infirmity".

SEXUAL HEALTH REQUIRES A POSITIVE AND RESPECTFUL APPROACH TO SEXUALITY AND SEXUAL RELATIONSHIPS, AS WELL AS THE POSSIBILITY OF HAVING PLEASURABLE AND SAFE SEXUAL EXPERIENCES, FREE OF COERCION, DISCRIMINATION AND VIOLENCE. FOR SEXUAL HEALTH TO BE ATTAINED AND MAINTAINED, THE SEXUAL RIGHTS OF ALL PERSONS MUST BE RESPECTED, PROTECTED AND FULFILLED

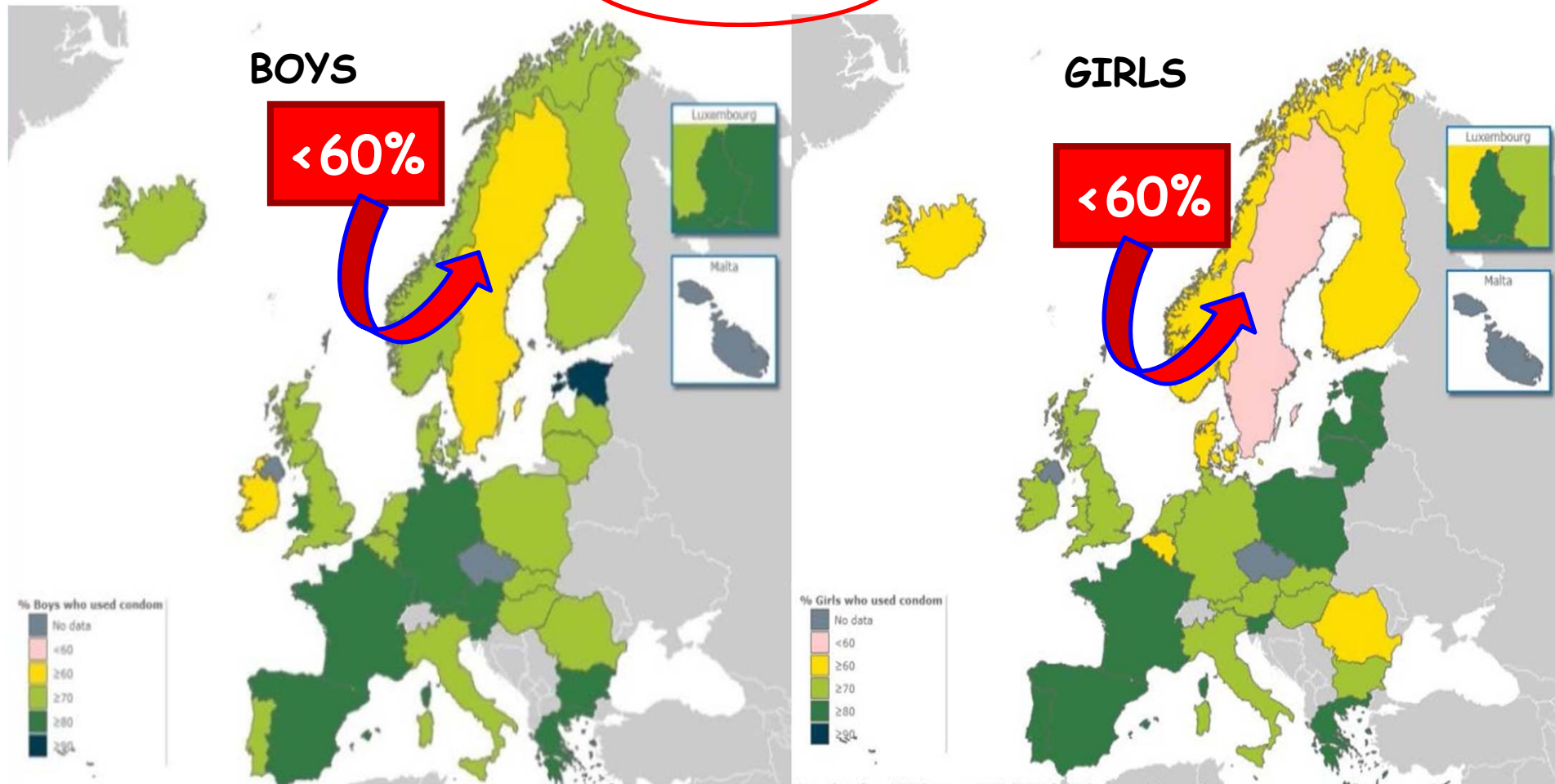
HPV VACCINE



IMMUNISATION PROGRAMME IS SUCCESSFULLY PREVENTING HPV 16/18 INFECTION IN SEXUALLY ACTIVE YOUNG WOMEN

LIFESTYLE

15-year-old boys and girls who used a condom at last sexual intercourse in EU/EEA countries



LESS THAN 60% OF 15-YEARS-OLD BOYS AND GIRLS USE CONDOM DURING SEXUAL INTERCOURSE IN NORTH EUROPE

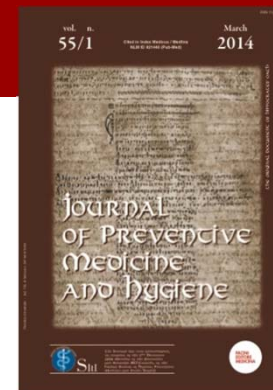
International Planned Parenthood Federation, European Network. Stand and deliver: sex, health and young people in the 21st century. London: IPPF, 2009.

EDUCATION

Risk perception of sexually transmitted diseases and teenage sexual behaviour: attitudes towards in a sample of Italian adolescents

M. BERGAMINI¹, A. CUCCHI², E. GUIDI¹, A. STEFANATI¹, B. BONATO¹, S. LUPI¹, P. GREGORIO¹

¹Department of Medical Sciences, Branch of Hygiene and Occupational Medicine, University of Ferrara, Italy; ²Department of Hygiene, Public Health Local Unit of Ferrara, Italy



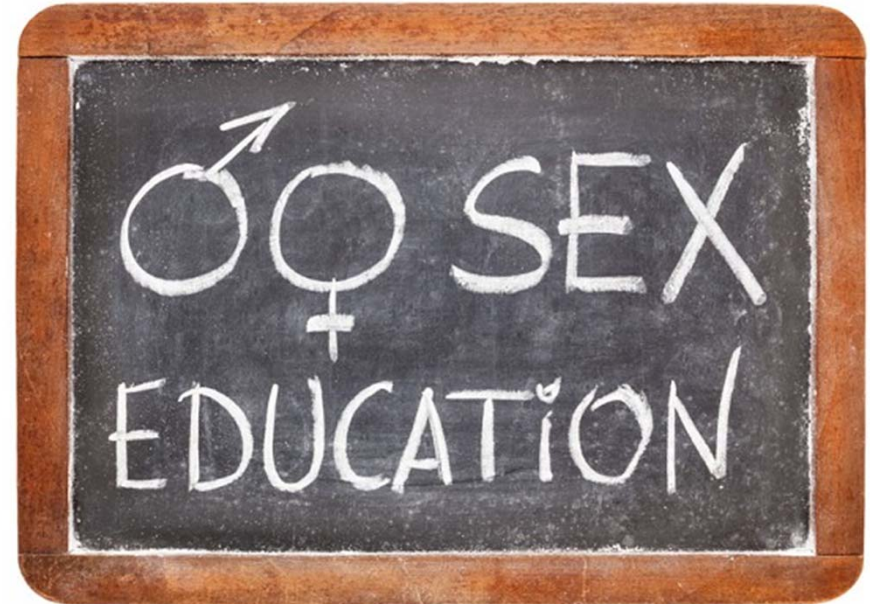
ABILITY TO RECOGNIZE RISK SITUATIONS

	Total			Males			Females		
	High risk	Low risk	No risk	High risk	Low risk	No risk	High risk	Low risk	No risk
Multiple partners	76,8	19,5	3,7	66,7	28,0	5,3	84,3	13,3	2,4
Sex without condom	96,0	3,4	0,6	94,1	4,7	1,2	97,5	2,3	0,2
Sex out of marriage	8,2	36,2	55,6	8,5	37,6	53,9	8,0	35,2	56,8
Sex before marriage	4,5	28,7	66,8	4,1	30,6	65,3	5,0	27,3	67,7
Needle exchange in drug abusers	94,9	2,5	2,6	92,9	3,1	4,0	96,3	2,0	1,7
Pregnancy	10,9	35,2	53,9	8,8	37,1	54,1	12,5	33,6	53,9
Blood transfusion	42,9	43,0	14,1	37,5	47,2	15,3	46,8	40,0	13,2
Vaginal sex	60,3	33,3	6,4	54,4	37,0	8,6	64,8	30,6	4,6
Anal sex	47,6	37,9	14,5	45,4	35,9	18,7	49,1	39,6	11,3
Oral sex	23,3	43,2	33,5	21,5	44,5	34,0	24,7	42,1	33,3
Kisses	2,2	24,7	73,1	1,9	23,6	74,5	2,5	25,6	71,9
Stings	6,1	31,9	62,0	6,8	34,9	58,3	5,5	29,4	65,1
Underwear exchange	4,1	31,2	64,7	3,2	25,1	71,7	4,8	35,9	59,3
Toothbrush exchange	9,6	35,9	54,5	7,9	39,6	52,5	10,7	33,4	55,9
Shaking hands	0,9	3,0	96,1	1,3	3,3	95,4	0,5	2,8	96,7
Hugging	0,6	2,2	97,2	0,7	3,0	96,3	0,5	1,7	97,8
Coughing and / or sneezing	3,4	36,2	60,4	3,6	38,9	57,4	3,3	34,3	62,4
Working in the same room	1,2	8,8	89,9	2,1	11,6	86,3	0,6	6,8	92,6
Sexual violence	92,6	6,0	1,4	89,5	8,3	2,2	94,9	4,3	0,8
Exchange of glasses and cutlery	6,1	38,5	55,4	5,3	40,7	54,0	6,7	36,7	56,6
Lack of knowledge of the STDs	80,3	16,0	3,7	76,9	18,6	4,5	82,7	14,2	3,1

EDUCATION

SEXUAL EDUCATION WAS FOUND TO BE EFFECTIVE IN:

- delaying sexual initiation
- decreasing the number of sexual partners
- increasing condom use
- increasing knowledge and awareness of HIV/STI
- increasing communication with parents



**SEXUALITY EDUCATION IS MANDATORY AT SCHOOL IN 20 COUNTRIES;
IT IS NOT MANDATORY IN BULGARIA, CYPRUS, GREECE, ITALY,
LITHUANIA, POLAND, ROMANIA, SLOVENIA, SPAIN AND UNITED
KINGDOM**

Kirby D, Laris BA, Roller L. Impact of sex and HIV education programs on sexual behaviours of youth in developing and developed countries. Research Triangle Park: Family Health International 2005

CONCLUSIONS

- HIGH INCIDECE IN EUROPEAN ADOLESCENT
- LITTLE KNOWLEDGE OF STDs
- VACCINATION PROGRAMS ARE EFFECTIVE
- LIFESTYLE INTERVENTIONS AND SEXUAL EDUCATION ARE MANDATORY

