



มหาวิทยาลัยมหิดล  
คณะแพทยศาสตร์  
ศิริราชพยาบาล

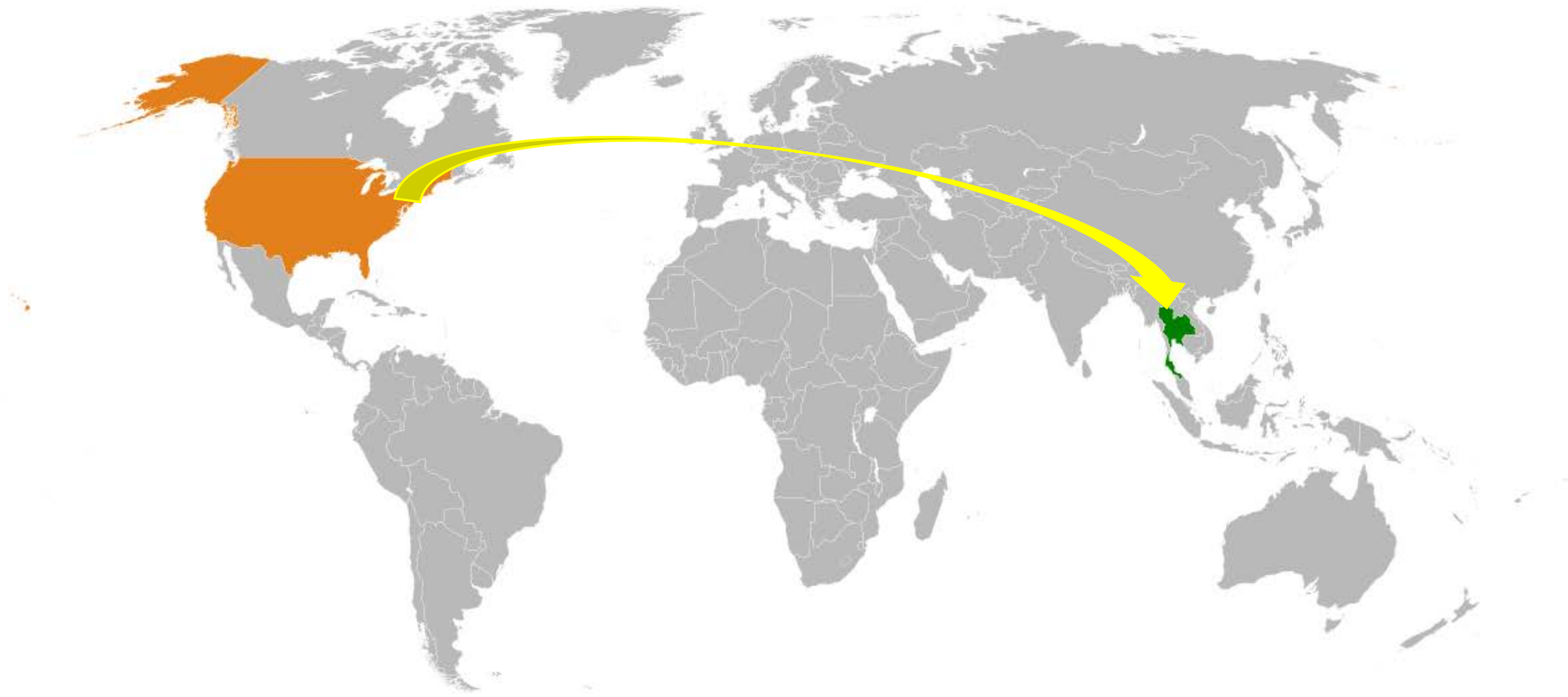
# Overview of HPV-Related Cancers in Thailand

## The Burden and Preventive Programs

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13,895 km from Maryland, USA to Thailand



# Thailand Population

## Population statistics

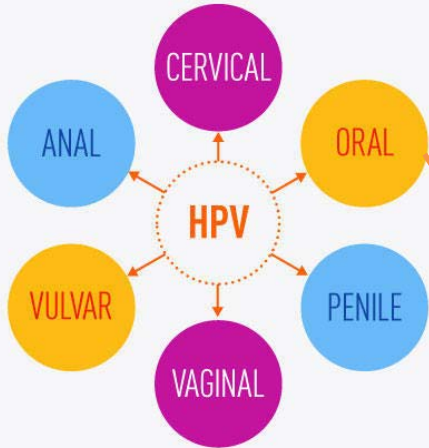
Total population of Thailand	66.17 million (2021)
Age structure (2021)	
▶ 0-14 years (male 5,612,711 /female 5,302,116)	16.49%
▶ 15-24 years (male 4,311,507/female 4,111,057)	12.73%
▶ 25-54 years (male 14,760,947/female 15,079,981)	45.10%
▶ 55-64 years (male 4,042,250/female 4,636,216)	13.12%
▶ 65 years and over (male 3,611,703/female 4,702,951)	12.57%

**3/5** of total population are  
between 25-64 years



# HPV-related cancers

## HUMAN PAPILLOMAVIRUS CAN CAUSE SEVERAL TYPES OF CANCER



**Cervical cancer** is the most common HPV-associated cancer among women, and **oropharyngeal cancers** are the most common among men. (CDC 2022)

Oropharyngeal  
Oral cavity  
Laryngeal



# HPV-Related cancers in Thailand 2021

**Table 1. Crude incidence rates of HPV-related cancers**

	Male	Female
Cervical cancer	-	25.6
Anal cancer	0.53	0.49
Vulva cancer	-	0.72
Vaginal cancer	-	0.46
Penile cancer	2.03	-
Oropharyngeal cancer	2.67	0.50
Oral cavity cancer	7.87	5.85
Laryngeal cancer	4.77	0.50

(Number of cases per 100,000 population at risk per year)



**Table 2. Burden of cervical cancer**

	Incidence	Mortality
Annual number of new cases/deaths	9158	4705
Crude rate	25.6	13.1
Age-standardized rate	16.4	7.45
Cumulative risk 0-74 years (%)	1.70	0.83
Ranking of cervical cancer (all years)	3rd	5th
Ranking of cervical cancer (15-44 years)	2nd	2nd



# Trend of cervical cancer in Thailand

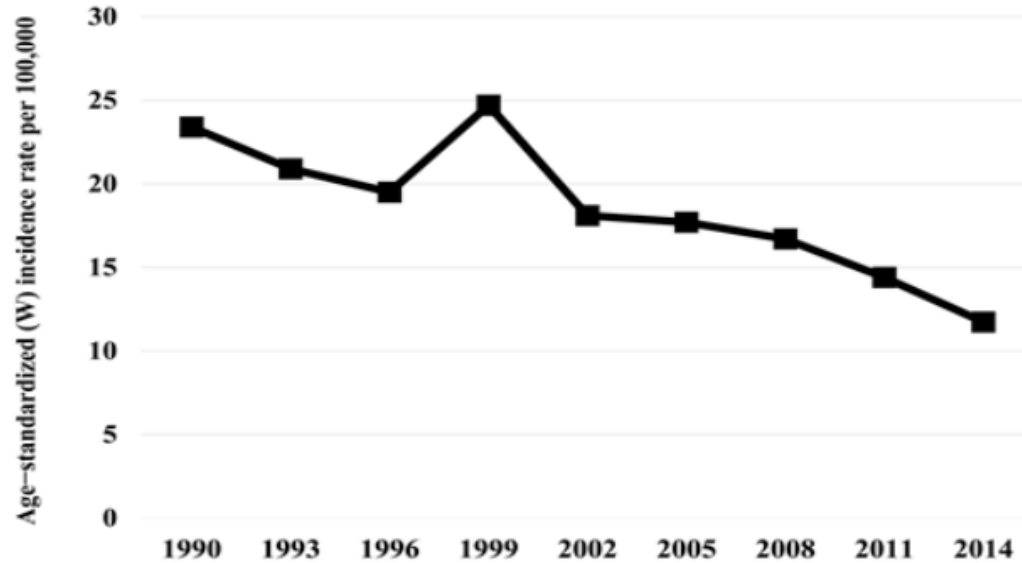


Figure 1. Trends in the Age-Standardized Incidence Rates for Cervical Cancer in Thailand, 1990-2014. 1990 (Vatanasapt et al., 1993), 1993 (Deerasamee et al., 1999), 1996 (Sriplung et al., 2003), 1999-2008 (Khuhaprema et al., 2007; 2010; 2012; 2013), 2011 and 2014 (Imsamran et al., 2018)





# Top ten most common cancers in Thai women

1990



2014

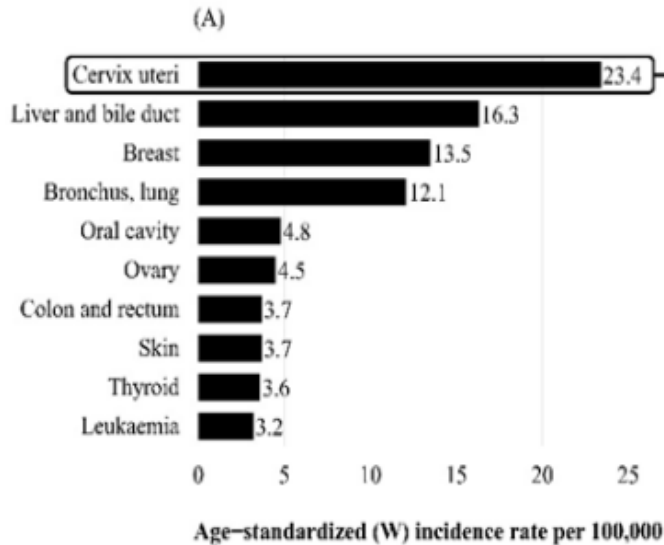
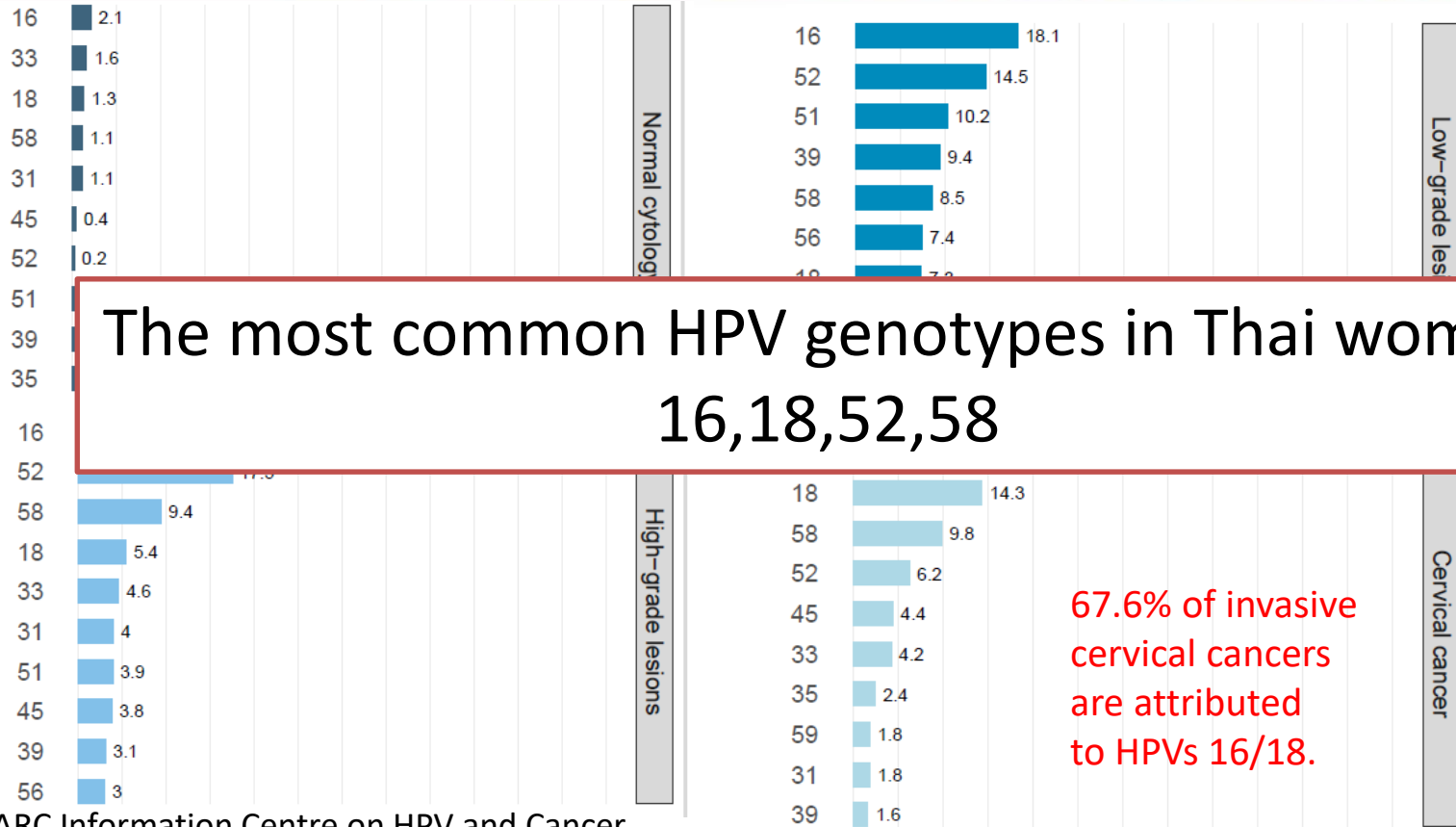


Figure 2. Age-Standardized Incidence Rates of the Ten most Frequent Cancers in Thai Women, (A) 1990 (Vatanasapt et al., 1993) and (B) 2014 (Imsamran et al., 2018)



# Most frequent HPV oncogenic types in Thailand among women with and without cervical lesions



The most common HPV genotypes in Thai women  
16,18,52,58

67.6% of invasive cervical cancers are attributed to HPV 16/18.



# Cervical cancer = Preventable cancer

## Primary Prevention

HPV  
vaccination

## Secondary Prevention

- Pap smear
- Dual tract strategy (Pap smear + VIA)
- HPV DNA testing

## Tertiary Prevention

Treatment  
of cervical  
diseases &  
surveillance



**Table 6. HPV vaccine introduction in females**

HPV vaccination programme	Introduced
Year of introduction	2017
HPV coverage – first dose (%) (estimation year 2019)	76
HPV coverage – last dose (%) (estimation year 2019)	66
HPV coverage – first dose (%) (estimation year 2020)	-
HPV coverage – last dose (%) (estimation year 2020)	-



# RTCOC Clinical Practice Guideline Primary Prevention of Cervical Cancer, 2020

Target group	Female 11-12 yrs	2 doses (0, 6-12 mo)
Other groups	Female & male 9-26 yrs	-3 doses (0,1-2,6 mo) -2 doses in < 15 yrs (0,6-12 mo)
	Immunocompromised	-3 doses (0,1-2,6 mo)
	History of abnormal Pap smear, HPV testing, CIN, genital wart	-3 doses (0,1-2,6 mo)

In 2020: Single dose HPV vaccine effectiveness study in Udon Thani and Buriram provinces of Thailand and wait for the results after 2<sup>nd</sup> and 4<sup>th</sup> year of study (MOPH)



**Table 7. Cervical screening practices and recommendations**

Cervical cancer screening coverage, % (age and screening interval, reference)	60.2% (All women aged 30-59 screened every 5y, RHS 2009 Thailand)
Screening ages (years)	30-65
Screening interval (years) or frequency of screens	5 years



- 3 phases of action

Phase 1 – Pap smear

Phase 2 – Dual tract strategy (Pap smear + VIA)

Phase 3 – HPV DNA testing



- Pap smear

- Year 2005- present
- Female age 35 – 60 years ( every 5 years)
- Number of provinces – 75 from 77





- Dual tract strategy (Pap smear + VIA)
  - Year 2015- present
  - Female age 30 – 60 years and 35-45 years, respectively (every 5 years)
  - Number of provinces – 77 from 77



- HPV DNA testing
  - Year 2020 - present
  - Female age 30 – 60 years (every 5 years)
  - Number of provinces – 60 from 77

HPV self sampling starts in 2022



- 394 Gynecologic Oncologists
- 1 National Cancer Institute
- 7 Cancer Hospitals
- 26 Tertiary Care Hospitals
- 25 Medical Schools



## WHO 2018 Announcement : The 90-70-90 target

### Proposed Elimination Threshold and Targets

**Threshold for Elimination as a Public Health Problem:  
Age-adjusted incidence rate < 4 / 100,000 women**

### 2030 Targets

**90%**

of girls fully vaccinated  
with HPV vaccine by 15  
years of age

**70%**

of women are screened  
with a high-performance  
test by 35 and 45 years of  
age

**90%**

of women identified with  
cervical disease  
(precancer or cancer)  
receive treatment and  
care



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ขอบคุณค่ะ

