

Asian Pacific Vaccinology Meeting II International Symposium for Asia Pacific Experts 30<sup>th</sup> November to 3<sup>rd</sup> December 2015



An Overview of EPI Programs: Trends Programmatic Needs And Introduction And Adoption: Malaysian Experience

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## **Presentation Outline**

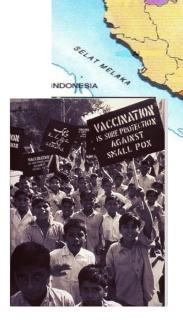
- EPI program in Malaysia
- Malaysian health care delivery system
- Case study New Vaccine Introduction

## **Immunisation History in Malaysia**

Smallpox Vaccination started in the Strait states & urban areas 1950's – Nationwide – Vaccinators – head master







PULAU



LAUT CHINA



MBASMIAN PENYAKIT CACAR DUNIA

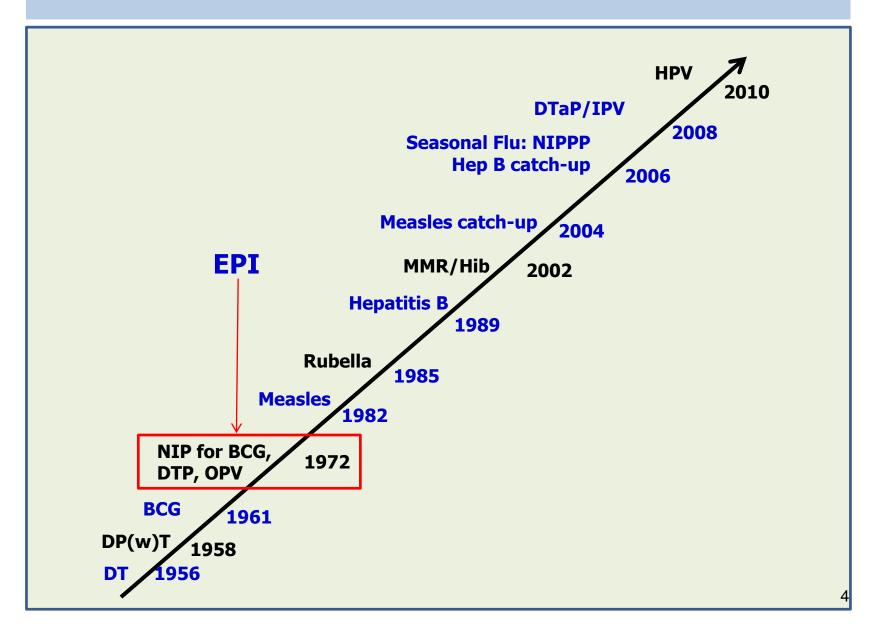








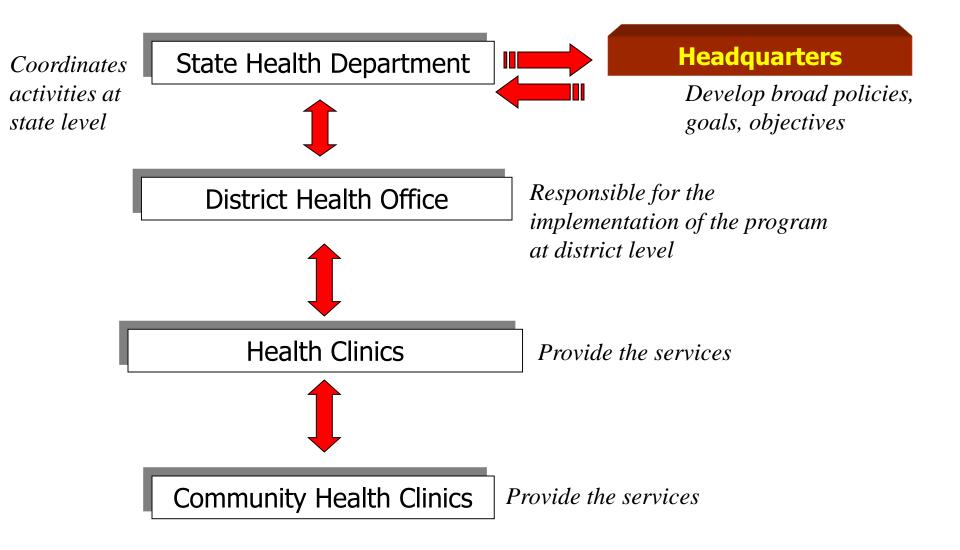
## **Immunisation History in Malaysia**



## **Malaysian Immunisation Schedule**

Vaccination	Clinic base						School base				
	Age in Month						Schooling year				
	0	1	3	4	5	6	12	18	Std 1	Fm 1	Fm 3
BCG	~		If no						lf no		
			scar						scar		
Нер В			~	~	~						
Polio			~	•	~						
Diptheria			~	~	~				~		
Pertusis			~	~	~						
Hib			~	~	~						
Measle						Sabah	~		~		
Mumps							~				
Rubella							~		~		
ATT			~	~	~			~	~		✓
HPV										~	
JE * Sarawak											

## **Organisation and service delivery**



### **DISTRICT HEALTH SERVICES**

#### 90% population within 5 km of health facility (NHMS II)



#### Mobile Services







#### District Health Office No. : 142\*

Community Clinic



sedia /

Coverage: 4,000 population



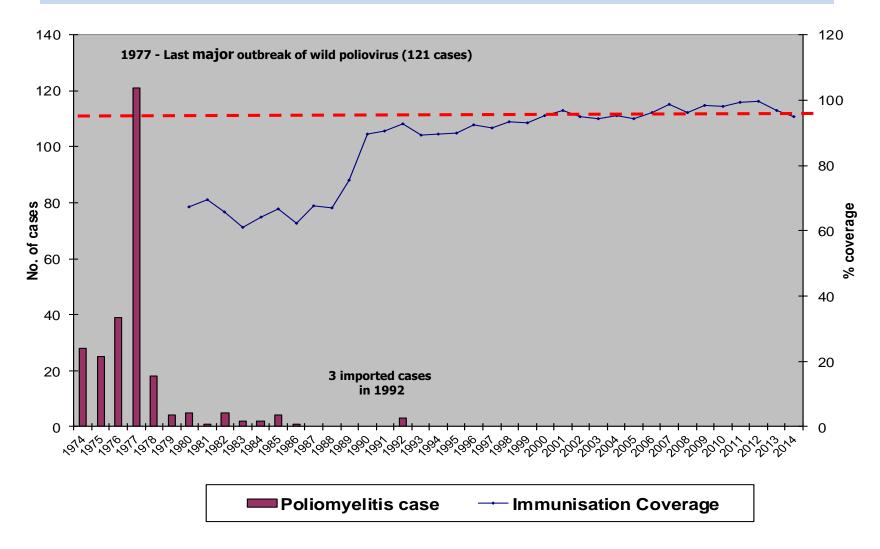
•Coverage: 20,000 population

1025 Health Clinics

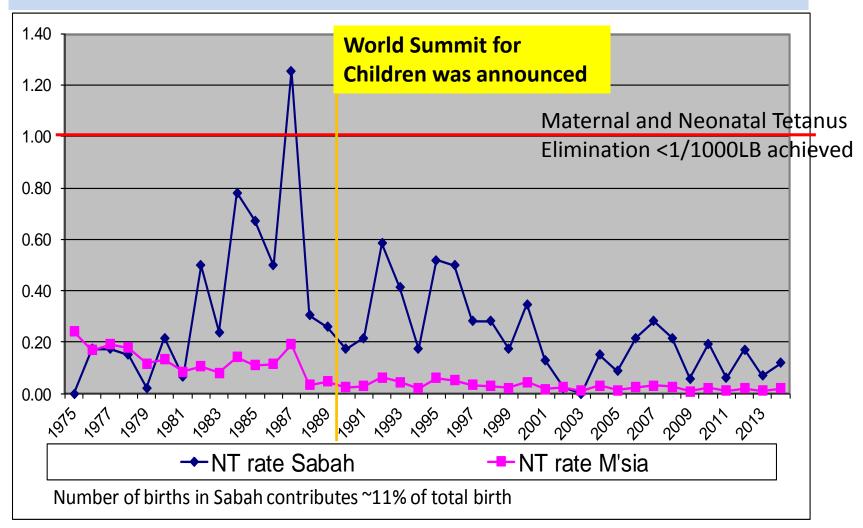
\* Health Informatics Centre Data, MOH 2013



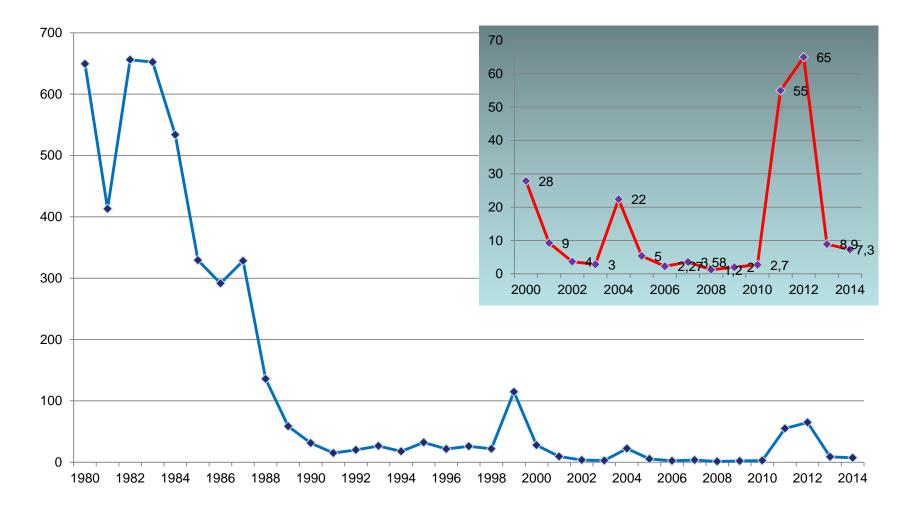
### Poliomyelitis & Polio Immunisation Coverage



#### Incidence of Neonatal Tetanus (per 1,000 LB) in Malaysia; 1975 – 2014



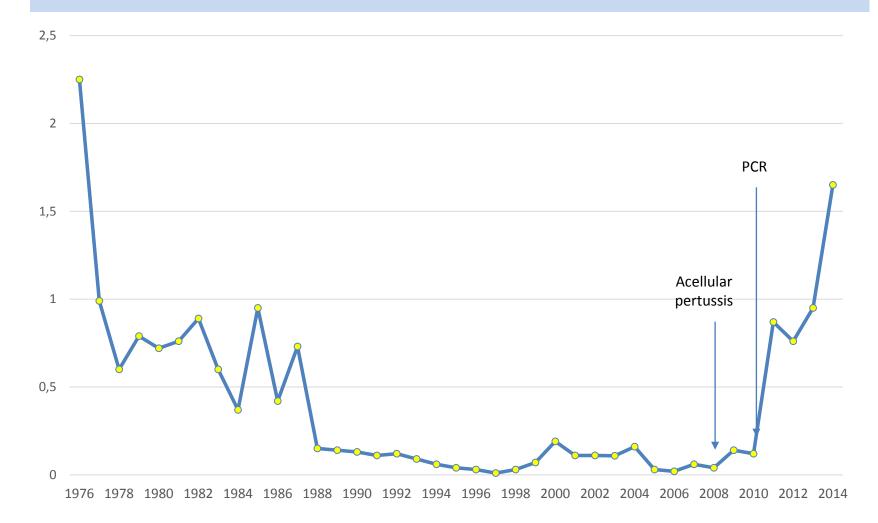
# Incidence of Measles in Malaysia (per 1 mil. pop.), 1976 - 2014



Elimination target: <1/1,000,000

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# Incidence of Pertussis in Malaysia (per 100,000 pop), 1976 - 2014



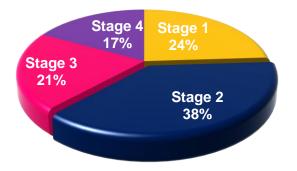
## Introducing new vaccines

- 1. Disease burden assessment; control and prevention plan & goals, efficacy
- 2. Vaccine are safe, effective and of good quality
- 3. Develop strategy for service delivery: advocacy, effectiveness and sustainability of program, procurement & supply, logistic including cold chain, training and supervision
- 4. Monitoring and evaluation: coverage, AEFI, disease incidence
- 5. **Regulatory**: registration, vaccine safety, quality control
- 6. WHO-Vaccines of assured quality (pre-qualified)

#### Introduction And Adoption Of National HPV Vaccination In Malaysia, 2010

- Decision Making and Planning

Cervix, Uteri stage at diagnosis among Malaysian citizen 2008



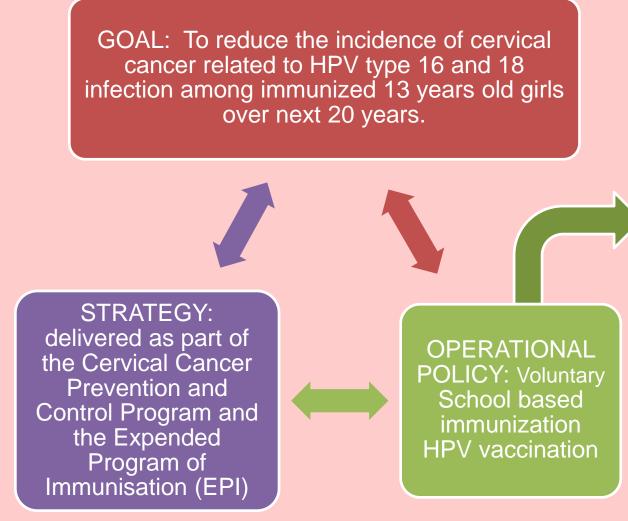
#### Why HPV vaccination become part of Cervical Cancer strategy?

- Low Cervical smear uptake among high risk women
- Delay in seeking treatment
- WHO endorse on safe HPV vaccine to prevent Ca Cx

	Ca Cervix	HPV Vaccination			
Budget/ Target	<b>1,627 cases</b> (2003)	<b>266,000 girls (</b> 2009)			
Cost	<ul> <li>RM 381.8 millions</li> <li>RM 2.8 millions for pre invasive</li> <li>RM 285 millions for treating new cases (invasive)</li> <li>RM 94 millions for treating old cases</li> </ul>	<ul> <li>RM 322.2 millions</li> <li>Vaccine RM319.2 million</li> <li>Additional Cost RM 3 millions (Health Education, Training and logistic</li> </ul>			
Cost/ person	RM 234,665.02	RM 1,211.28			
Incidence	19.7 /100,000 women- unchanged	8/1,000,000 (estimate vaccine efficacy at 98%)			

Aljunid, 2007.;HUKM

### Introduction And Adoption Of National HPV Vaccination In Malaysia, 2010



- High school attendants in Malaysia
- HPV vaccine as an additional vaccination to existing EPI program
- Availability of structured comprehensive school health program
- Strong commitment and support from Ministry of Education

## **Competitive Procurement Process**



## Side Benefits of vaccine procurement

- 856 vaccine fridges supplied to 651 health facilities
- RM1 million/ year for promoting vaccination
- Supplies of disposable injection consumables
   2014 – 2015:
  - Maintenance of the vaccine fridges

## **Promoting HPV Vaccination To Public**

#### Theme: HPV vaccine as Cervical Cancer vaccine

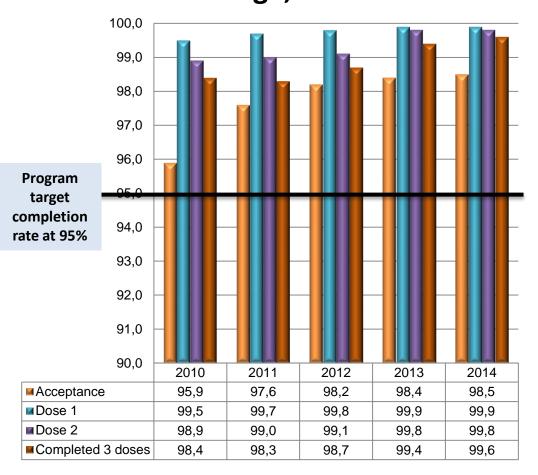
Media Campaign Based Health Belief Model 1. Cervical cancer is	Public access to interactive information	Rumours surveillance and program monitoring
preventable 2. Parental awareness on voluntary vaccination 3. Persuade girls to complete 3 doses vaccination as scheduled	<ol> <li>Social Media         <ul> <li>HPV Facebook</li> <li>HPV twitter</li> </ul> </li> <li>Phone Hot line</li> </ol>	<ol> <li>Response to media and public queries</li> <li>Provide guideline to implementers</li> <li>Monitor potential program threat and proposed counter measures</li> </ol>

# Addressing the religious and cultural aspect of the HPV vaccination

Leading to establishment of Fatwa or religious ruling on HPV vaccination for the Muslim.

## **Monitoring and Evaluation**

#### Malaysia HPV Vaccination Coverage, 2010 - 2014



AEFI 2010 - 2014 Percent	age (%)
Pain at Injection Site	16.4
Swelling at Injection Site	11.5
Dizziness	10.4
Headache	8.3
Generalised weakness	6.6
Nausea	6.0
Vomiting	5.4
Fatigue	5.4
Body ache	5.0
Injection site erythema	4.8

#### FACTORS CONTRIBUTING TO SUCCESS OF HPV VACCINATION IN MALAYSIA



## Challenges in Introducing New Vaccine: GVAP strategy

- GVAP strategy
  - Countries has to introduce new vaccine
  - PCV, Rota, dengue
- Competing PH priorities
  - Existence of surveillance
  - Evidence of high morbidity and mortality
- New vaccines are expensive
  - Sustainability
- Active community participation and empowerment
  - To improve coverage

## Conclusion

- Vaccines and immunisation
  - Cost effective health intervention
- Need to ensure
  - -Optimisation of benefits
  - -Sustainability of programme