Thailand Expanded Program on Immunization

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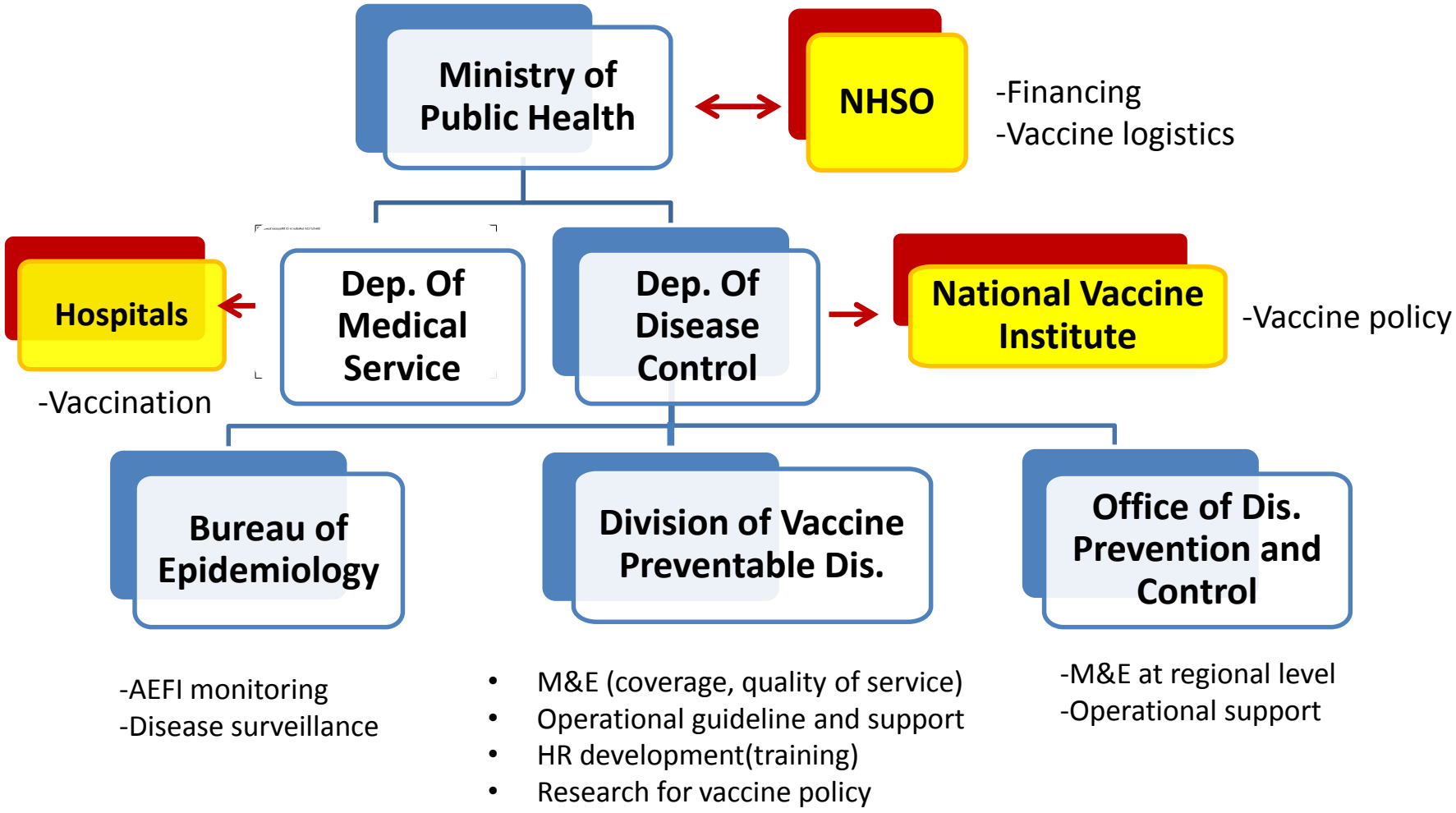
Outline

- Expanded Program on Immunization
  - Organization
  - Immunization schedule
- Monitoring
- New vaccines
  - Vaccines in pipeline
  - Vaccine prioritization
  - Decision making for ne vaccine
- New immunization plateform
  - Adult immunization clinic

National Immunization Framework



Current Immunization Schedule in Thailand

Month	Vaccine	Remark
Newborn	BCG	After birth
	HB	Within 24 hrs after birth
1 months	HB	Those who were born to Hepatitis B carrier
2 months	DTP-HB1, OPV1	
4 months	DTP-HB2, OPV2, IPV	
6 months	DTP-HB3, OPV3	
9 months	MMR1	
1 year	LAJE1	
1 year 6 months	DTP4, OPV4	
2 years 6 months	LAJE2, MMR2	
4 years	DPT5, OPV5	
7 yrs (Grade 1 student)	Catch up for all vaccines	
11 yrs (Grade 5 girls student)	HPV1, HPV2	
12 yrs (Grade 6)	dT	
Pregnant woman	dT	
	Flu	

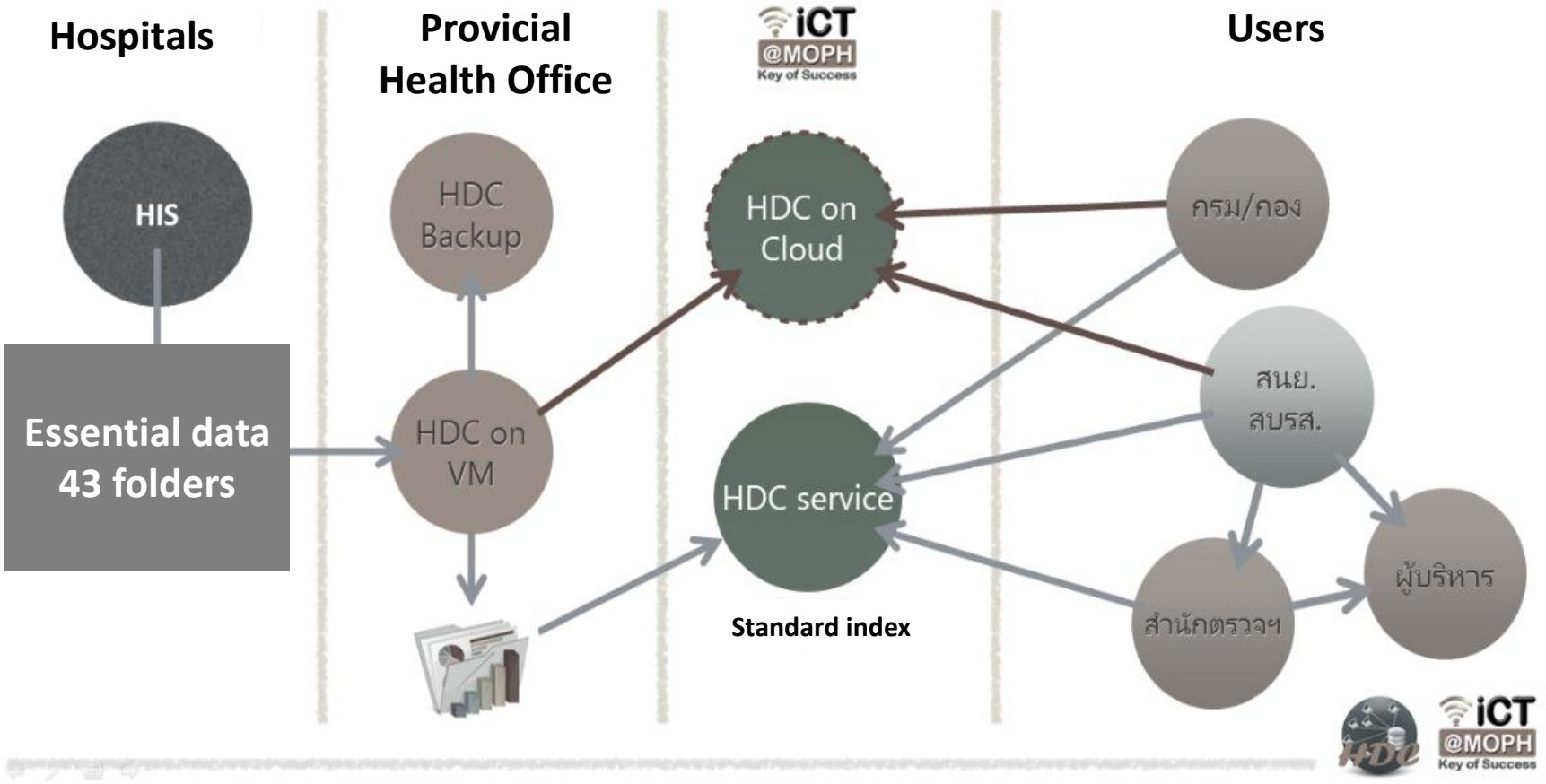
Influenza Vaccine

- Pregnant women
- Healthcare workers
- Senior citizens (age>65 years)
- Children age 6 months – 2 years
- Obese (>100 kg., BMI>35)
- Disable neuro-muscular diseases
- Chronic medical conditions (COPD, asthma, Heart Disease, CVA, Renal Failure, DM, HIV, Thalassemia)

Vaccination coverage monitoring 30- cluster survey

Vaccine	coverage
BCG	99.9
HB3	98.3
DTP3	98.7
OPV3	98.7
Measles/MMR	98.1
DTP4	96.5
OPV4	96.6
JE2	94.6
JE3	89.3
DTP5	79.4
OPV5	79.4

Vaccination coverage monitoring Health Data Center (HDC)

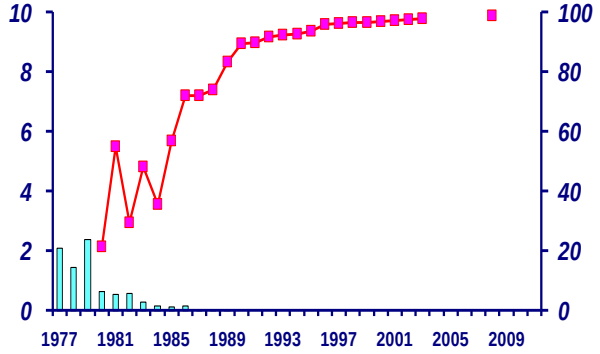


Vaccination coverage monitoring Health Data Center (HDC)

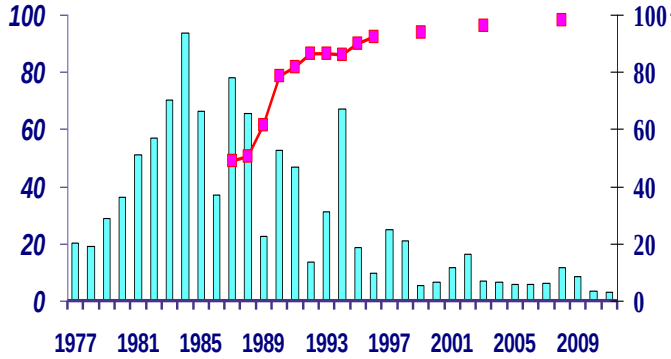
เขตสุขภาพ	รวม												
	Bรวม	BCG		HBV1		DTP-HB3		โปลิโอ3		MMR1		IPV	
		A	%	A	%	A	%	A	%	A	%	A	%
เขตสุขภาพที่ 1	37,840	35,798	94.60	36,203	95.67	34,262	90.54	34,245	90.50	33,524	88.59	32,261	85.26
เขตสุขภาพที่ 2	25,183	24,673	97.97	24,755	98.30	23,541	93.48	23,569	93.59	23,230	92.24	22,480	89.27
เขตสุขภาพที่ 3	19,207	17,801	92.68	18,241	94.97	17,345	90.31	17,323	90.19	16,758	87.25	15,865	82.60
เขตสุขภาพที่ 4	29,314	27,116	92.50	27,786	94.79	26,219	89.44	26,185	89.33	25,611	87.37	22,989	78.42
เขตสุขภาพที่ 5	33,944	31,994	94.26	32,347	95.30	29,558	87.08	29,615	87.25	29,092	85.71	26,439	77.89
เขตสุขภาพที่ 6	38,167	35,757	93.69	36,610	95.92	35,047	91.83	35,068	91.88	34,853	91.32	32,686	85.64
เขตสุขภาพที่ 7	36,261	34,955	96.40	35,200	97.07	33,377	92.05	33,376	92.04	32,571	89.82	28,989	79.95
เขตสุขภาพที่ 8	45,417	43,975	96.82	44,374	97.70	42,170	92.85	42,148	92.80	41,467	91.30	39,353	86.65
เขตสุขภาพที่ 9	49,079	45,055	91.80	46,935	95.63	44,708	91.09	44,651	90.98	43,001	87.62	41,406	84.37
เขตสุขภาพที่ 10	38,794	37,476	96.60	37,741	97.29	35,774	92.22	35,779	92.23	34,893	89.94	33,679	86.81
เขตสุขภาพที่ 11	37,768	36,055	95.46	36,293	96.09	33,594	88.95	33,630	89.04	32,855	86.99	29,694	78.62
เขตสุขภาพที่ 12	49,227	48,642	98.81	48,642	98.81	42,248	85.82	42,298	85.92	43,344	88.05	39,821	80.89
รวม	**440,201**	**419,297**	**95.25**	**425,127**	**96.58**	**397,843**	**90.38**	**397,887**	**90.39**	**391,199**	**88.87**	**365,662**	**83.07**

Vaccine Coverage and Disease Incident

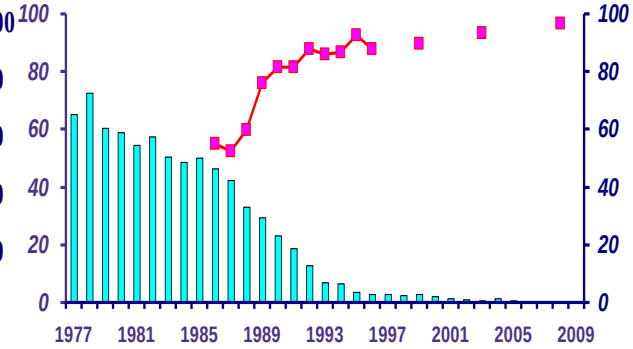
Poliomyelitis



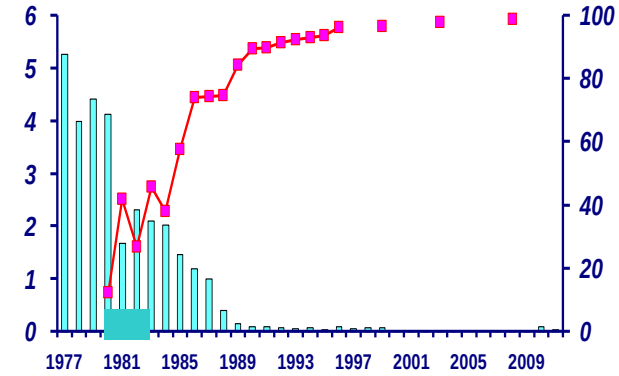
Measles



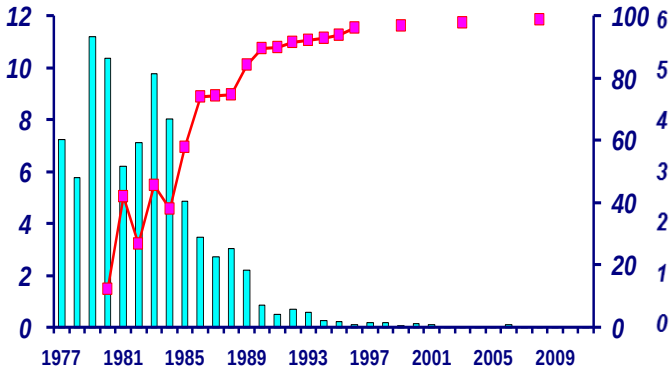
Neonatal Tetanus



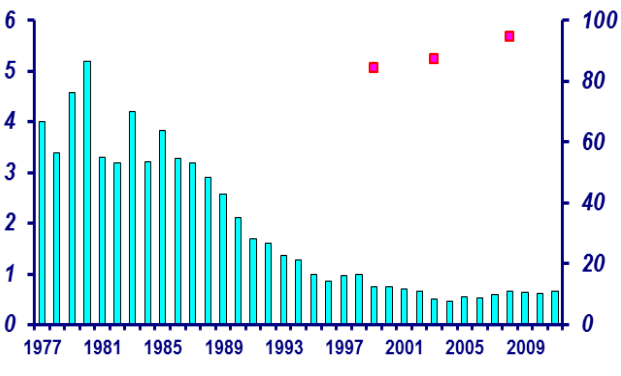
Diphtheria



Pertussis



Encephalitis



Vaccine coverage

Case rate/100,000 and case / 100,000 live births for NNT

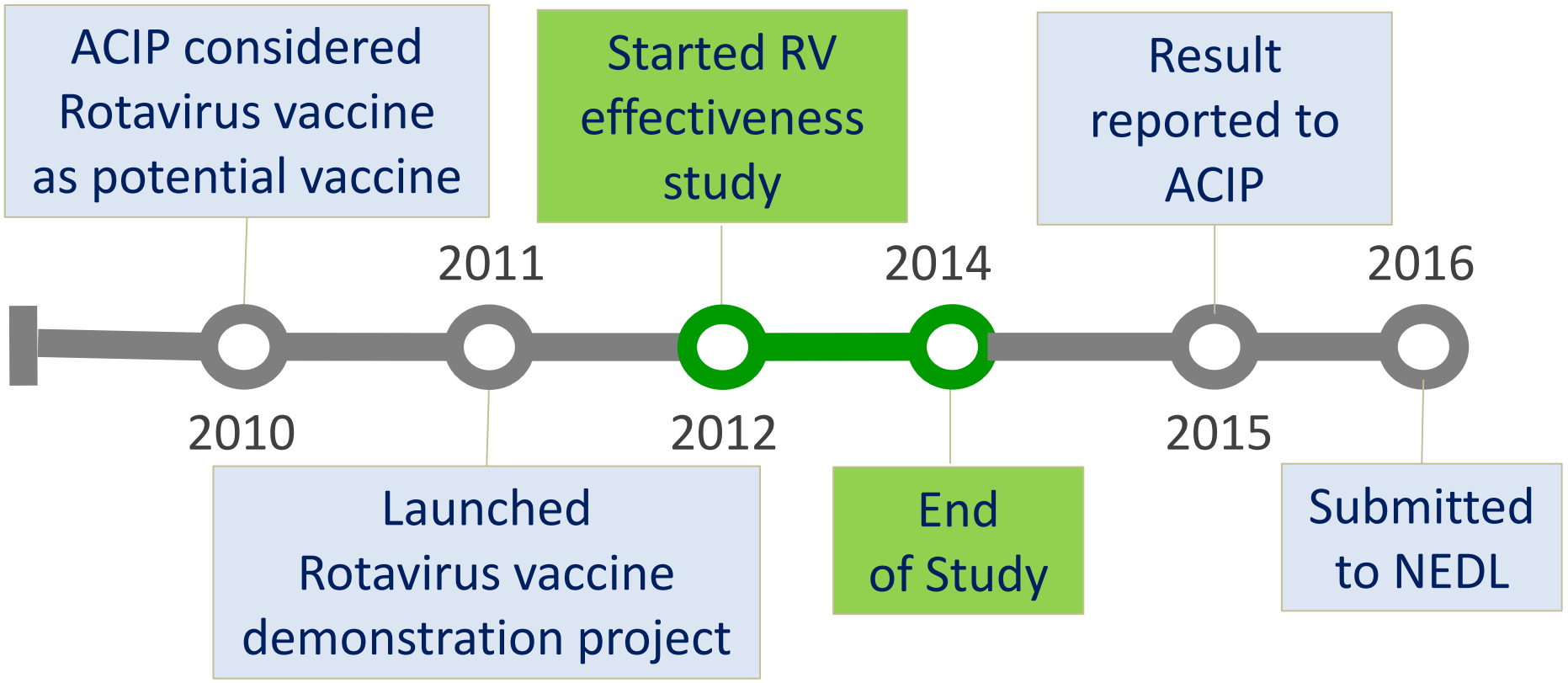
New vaccines in pipeline

- HPV
- Rotavirus vaccine
- Vaccine prioritization

New vaccines in pipeline

1. **HPV vaccine**
   - Nation wide introduction in 2017
   - Evaluation in 2018

Rotavirus Vaccine in Thailand



Challenges in RV Introduction

- Burden of disease
- Perception of diarrhea in Thailand
- Competing priorities
- Perception on disease prevention
- Lengthy new vaccines decision chain
- Financing for immunization

Financing for Vaccines in EPI

- Single party: NHSO
- 1.29 billion baht for the vaccines in 2016
  - 957 million baht on basic vaccines
  - 337 million baht on flu vaccine
- Budget impact for new vaccines
  - 300 million baht for HPV
  - 420 million baht for rotavirus vaccine

New financing method?

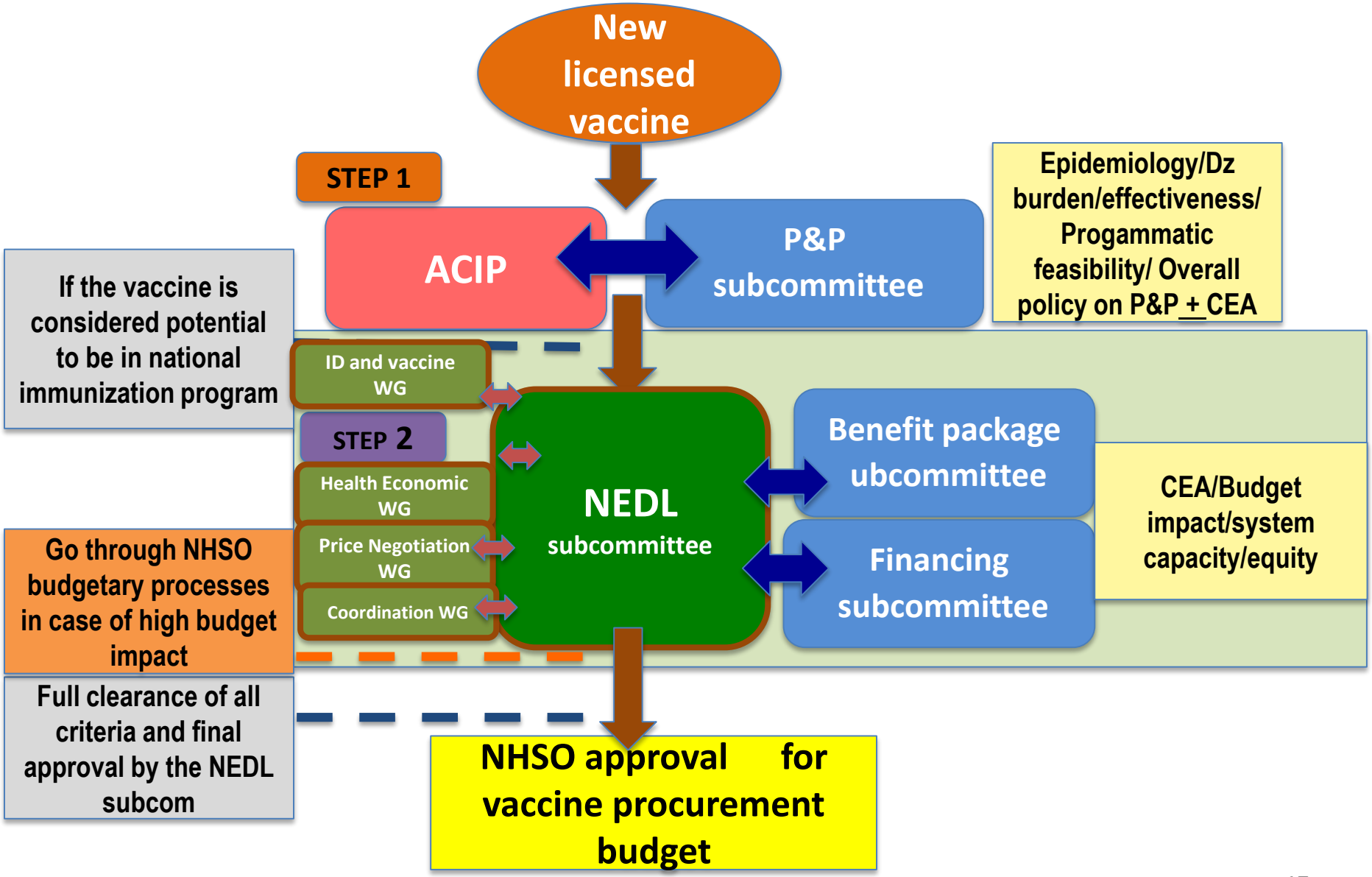
New Vaccines Prioritization

Vaccines	Burden	Dis. severity	Efficacy	Safety	Budget impact	Vaccine production	Score	Social equity	CEA
Tdap	1	4	5	5	5	5	25	✓	± (I)
DTwP-HB-Hib + IPV 1 dose	4	4	5	5	5	2	25	✓	n/a
Rabies	1	5	5	5	5	4	25	✓	- (T)
DTwP-HB-Hib + IPV 5 doses	4	4	5	5	4	2	24	✓	+ (T)
Influenza	4	2	3	5	5	4	23	-	+ (I)
DTaP-HB-Hib-IPV	4	4	4	5	2	2	21	✓	n/a
PCV	3	5	3	5	2	2	20	✓	+ (I) / - (T)
Varicella	4	1	5	5	3	2	20	-	± (I)
Hep A	2	1	5	5	4	2	19	-	n/a
MR	1	1	5	5	5	1	18	-	n/a
DTaP	1	4	4	5	2	-	16	✓	± (I)
Dengue	5	1	2	5	1	1	15	✓	- (T)
Herpes	5	1	1	5	1	1	14	-	± (I)

New Vaccines Prioritization

Rank	Vaccines	Target population
1	Tdap	Pregnant women
	Influenza	Pregnant women (year round)
	DTwP-HB-Hib	Children under 5 years
	DTwP-HB-Hib-IPV	Children under 5 years
	MR	Healthcare workers
2	PCV	Children under 5 years
	Dengue	School student
	Varicella	Children under 5 years
	Hep A	Children under 5 years
3	Rabies (pre-exposure)	Children under 5 years
	DTaP-HB-Hib-IPV	Children under 5 years
	Zoster	Senior

New vaccines and UHC



SEVENTIETH WORLD HEALTH ASSEMBLY 2017

WHA70.14 Strengthening immunization to achieve the goals of the global vaccine action plan

URGES Member States:

(4) **to expand immunization services beyond infancy to cover the whole life course,** as appropriate, guided by evidence, including on the burden of disease, cost effectiveness, budget impact assessment and system capacities, and using the most appropriate and effective means of reaching the other age groups and high-risk populations with immunization and integrated health services;

Adult Immunization Clinic

Technical

- Review recommendations for immunization in adult
- Developing national adult immunization schedule

Adult immunization demonstration clinic

- Established in 2017
- Area: 4 districts in 4 provinces
- Evaluation: ongoing
- Scale up plan: 12 provinces in 2018

Vaccines in the demonstration clinic

- Influenza vaccine in pregnancy (year round)
- dT vaccine for adult age 20, 30, 30, 40, 50, 60, ……..