



Malaria elimination in Jiangsu China

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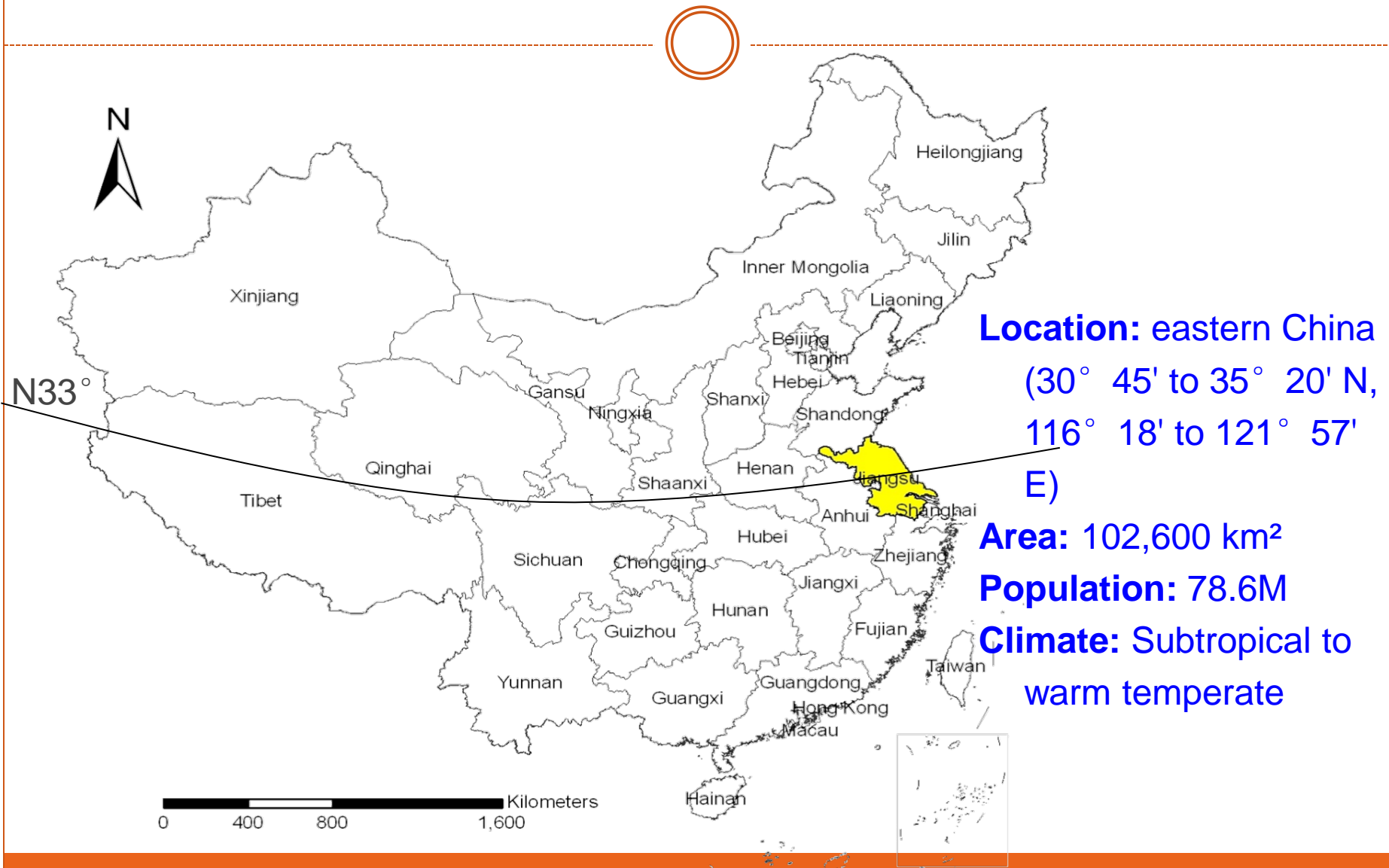
APMEN VI

Annual Business and Technical meeting

Manila, The Philippines

March 11 - 13, 2014

Geographical features of Jiangsu



Location: eastern China
(30° 45' to 35° 20' N,
116° 18' to 121° 57'
E)

Area: 102,600 km²

Population: 78.6M

Climate: Subtropical to
warm temperate

Epidemiological characteristics of Jiangsu



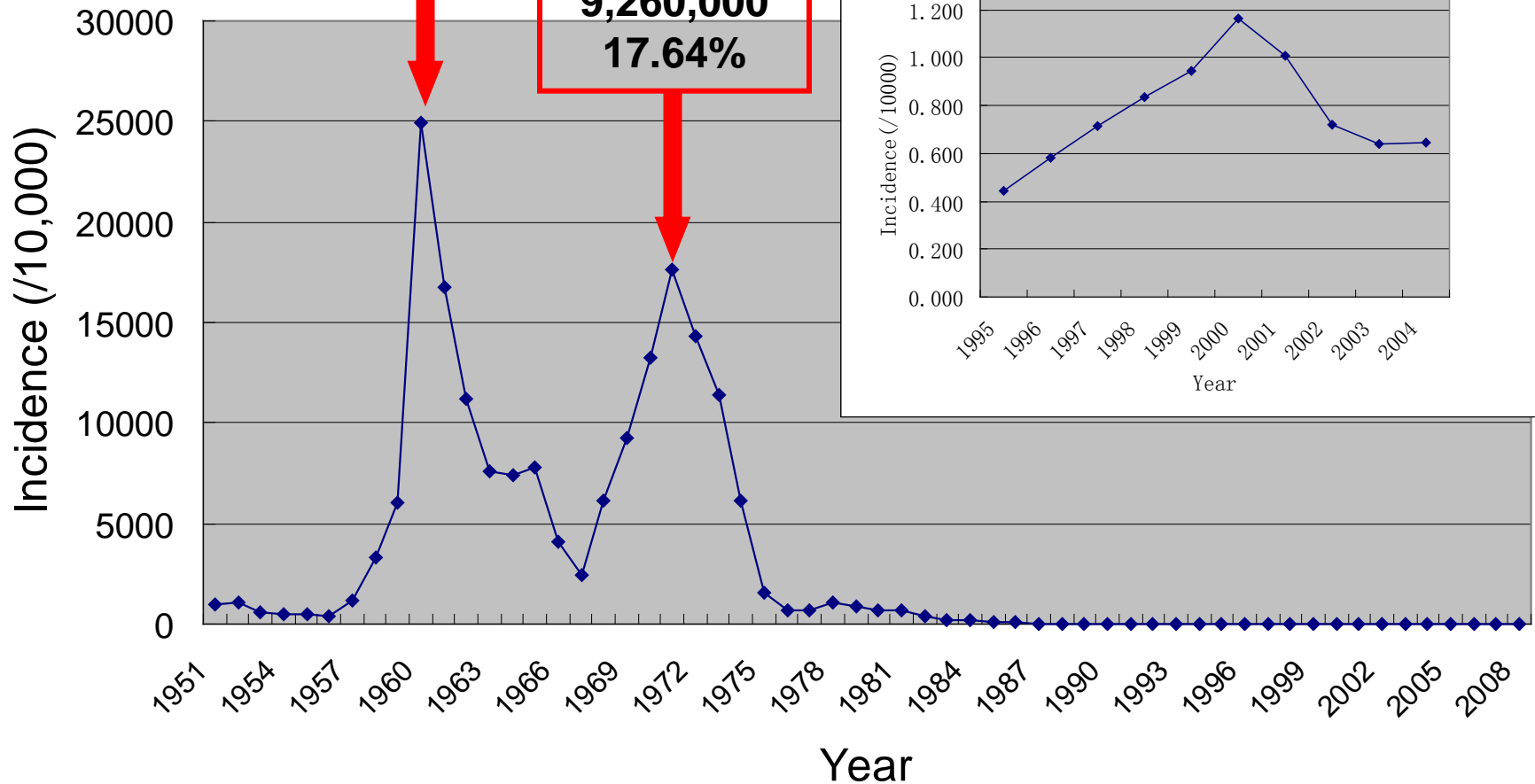
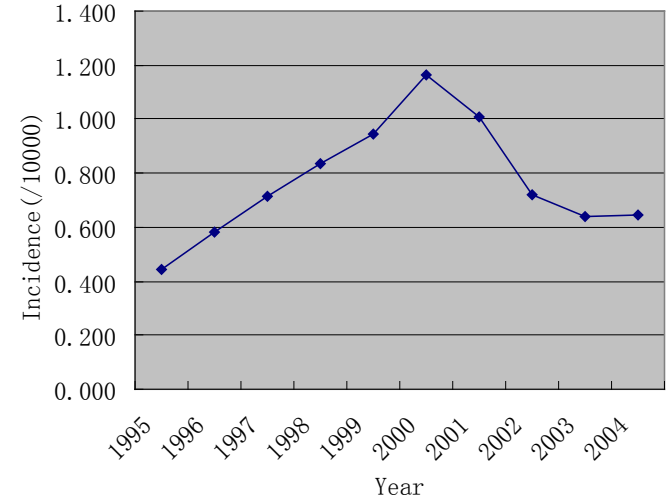
- Rivers: Yangzi & Huaihe(500)
- Lakes: Tai & Hongzhe (290)
- Annual Temperature:
13° C-16° C
- Annual Rainfall: 1,002mm
- Parasites:
P.v. *P.f.* & *P.m* (before 1990);
Only *P.v* (before 2010)
Only imported cases(since 2012)
- Vectors:
An.sinensis & *An. Anthroghogus*
- Transmission:
Jun to Sep (before 1990);
May to Oct (now)

Malaria in Jiangsu 1951-2008

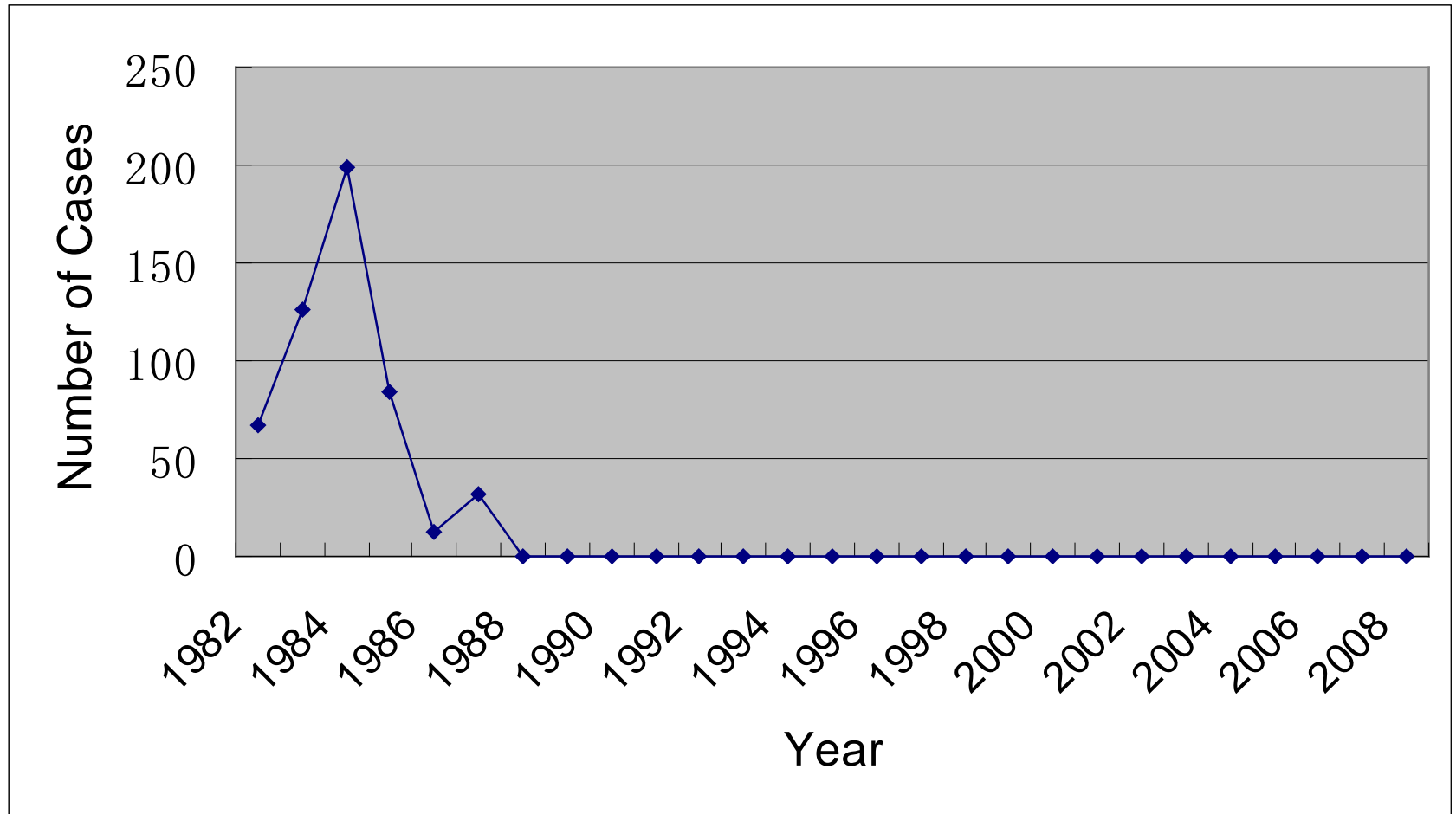
10,600,000
24.95%

9,260,000
17.64%

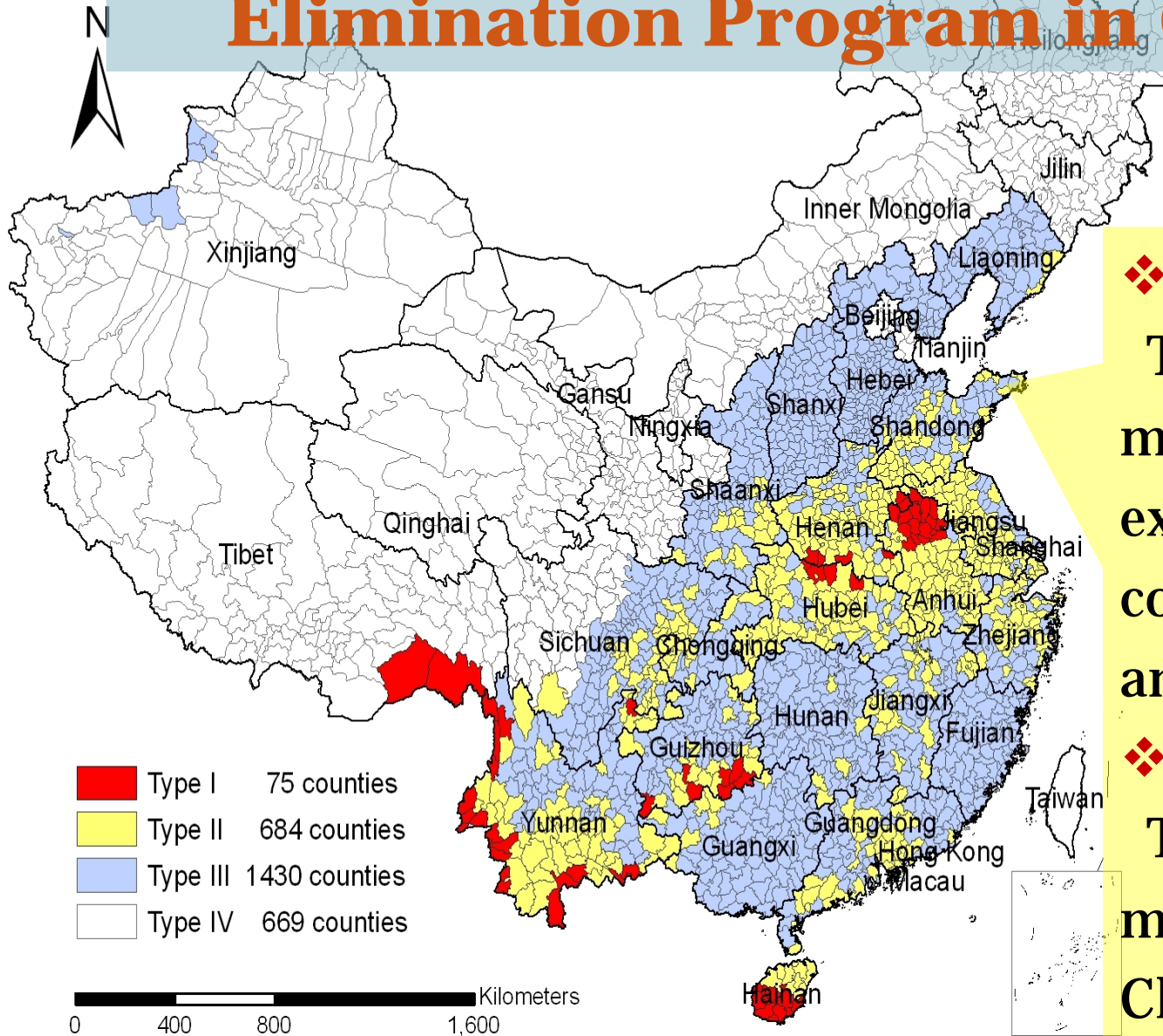
Malaria Morbidity of Jiangsu Province from 1995-2003



Falciparum Malaria in Jiangsu (1982-2008)



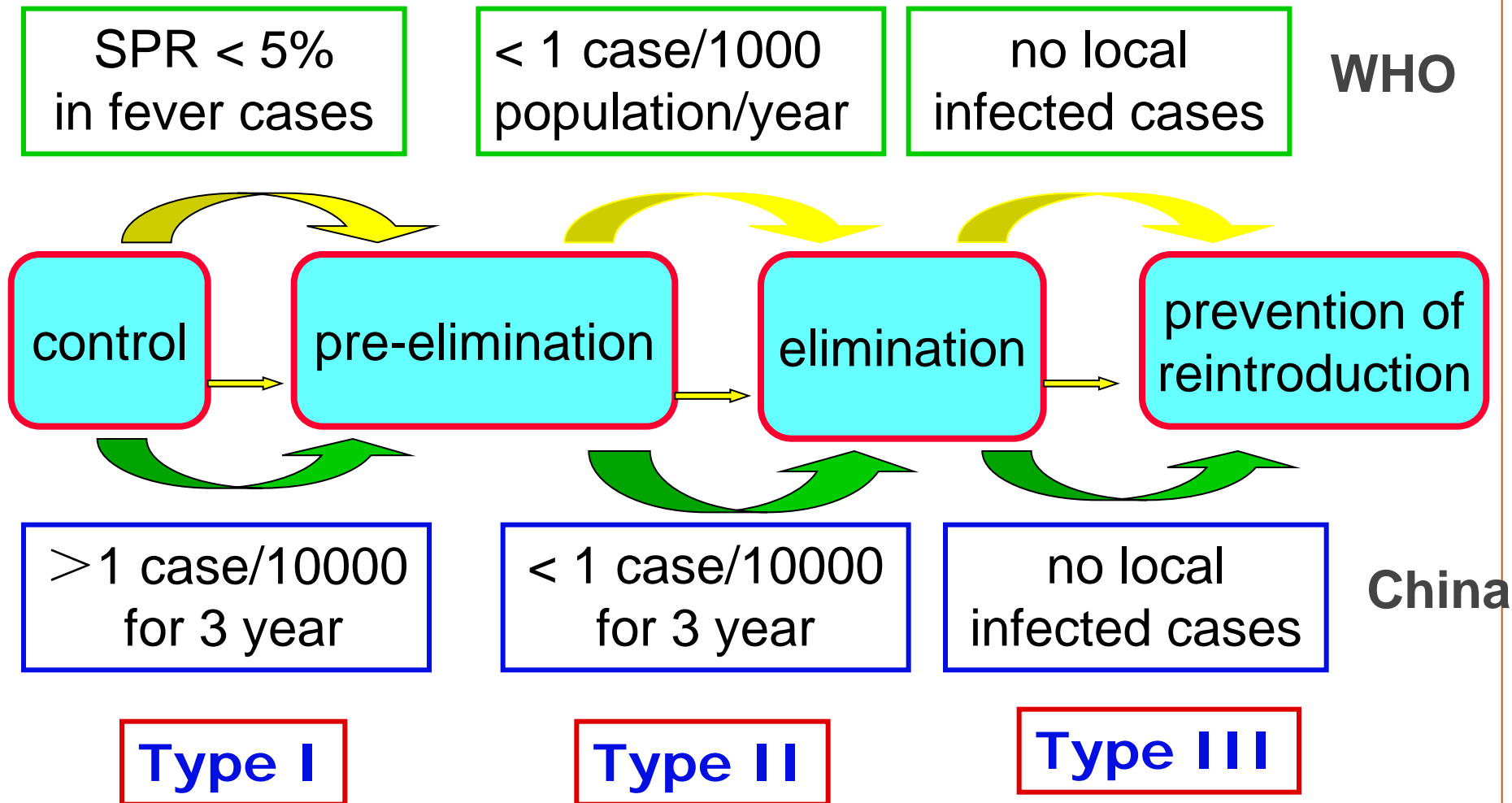
Goals of National Malaria Elimination Program in China








❖ **Goal to 2015:**
To eliminate malaria in China except border counties in Yunnan and Tibet.

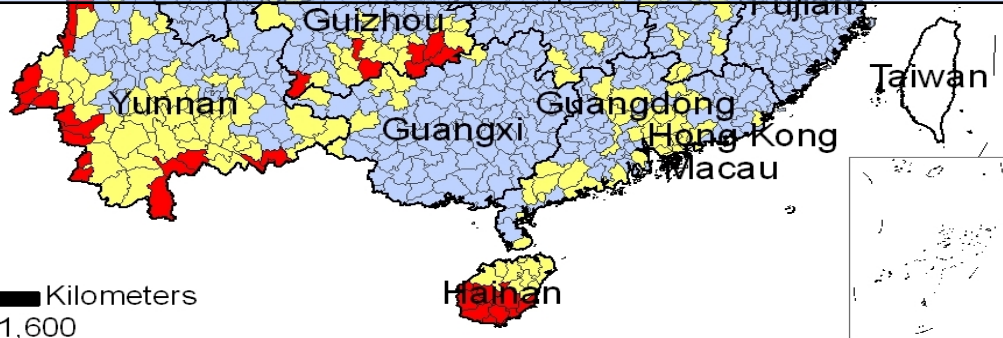
❖ **Goal to 2020:**
To eliminate malaria in all of China.

Phases on the path to elimination



County	Definition	No. of Counties	Target population (10,000)
Type 1 	In the last 3 years: All 3 years have local infected case & annual incidence $\geq 1/10,000$	75	3965
Type 2	In the last 3 years: At least 1 year have local infected case & annual incidence $< 1/10,000$	684	44792
Type 3	In the last 3 years: No reported local infected case	1430	62281
Type 4	In the history: Malaria free areas	669	18882

-  Type I 75 counties
-  Type II 684 counties
-  Type III 1430 counties
-  Type IV 669 counties



National Elimination Strategies

❖ Type 1: (Pre-elimination)

Intensified control strategies to reduce the incidence

❖ Type 2: (Elimination)

Elimination strategies

❖ Type 3 (Prevention re-introduction)

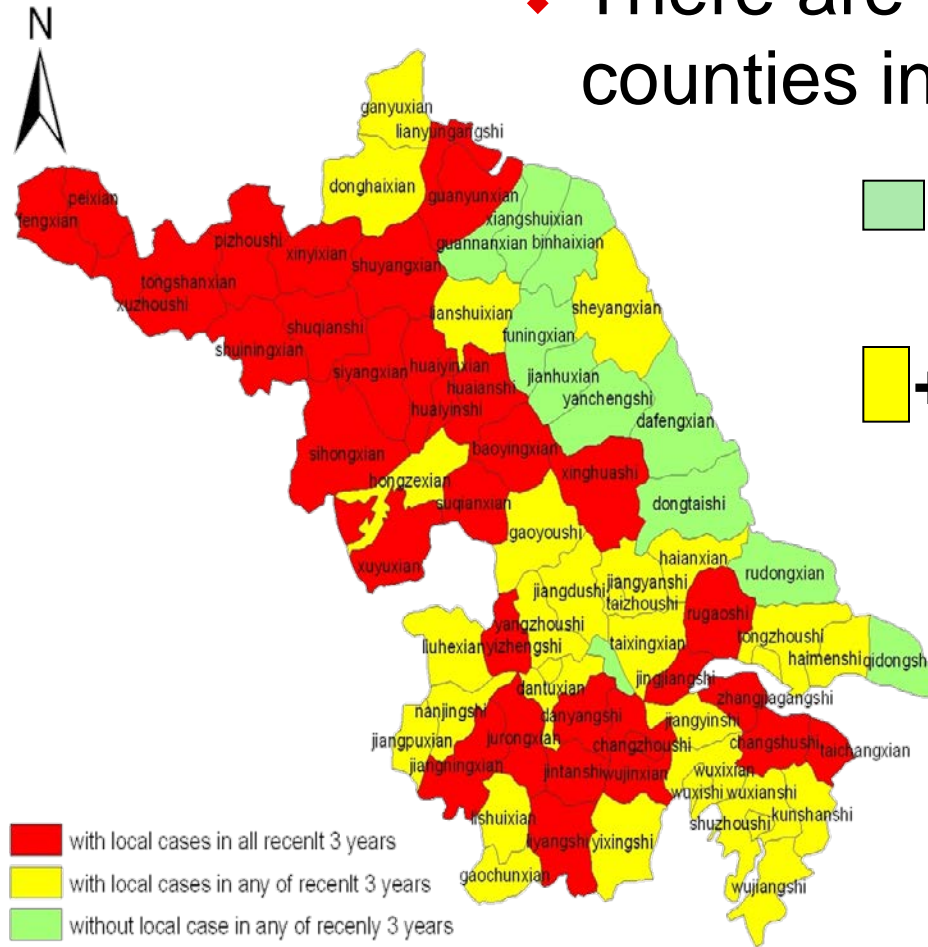
Strengthen surveillance facility & ability

❖ Type 4

Improve malaria diagnosis & treatment capacity

Goals of Malaria Elimination Program in Jiangsu

❖ There are only type 2 and Type 3 counties in Jiangsu since 2008



Type 3: 24 Counties

Type 2: 82 Counties

49 counties with local cases in 1 of 3 years

33 counties with local cases in all of 3 years

with local cases in all recent 3 years
 with local cases in any of recent 3 years
 without local case in any of recent 3 years

0 75 150 300 Kilometers

Malaria Elimination Strategy in Jiangsu

❖ **Type 3:** (Same as National Strategy)

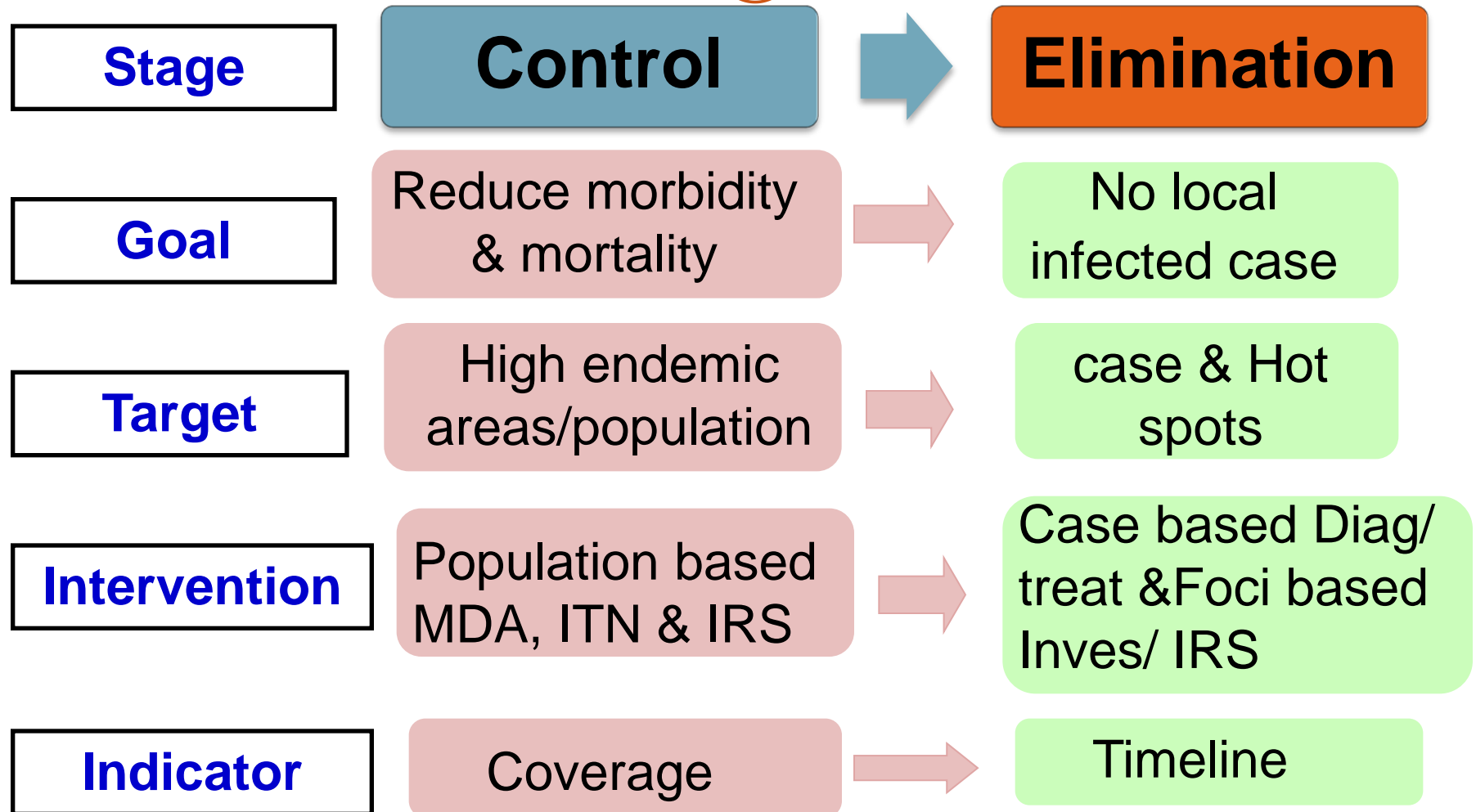
Strengthen surveillance facility & ability

❖ **Type 2:** (Different with National Strategy)

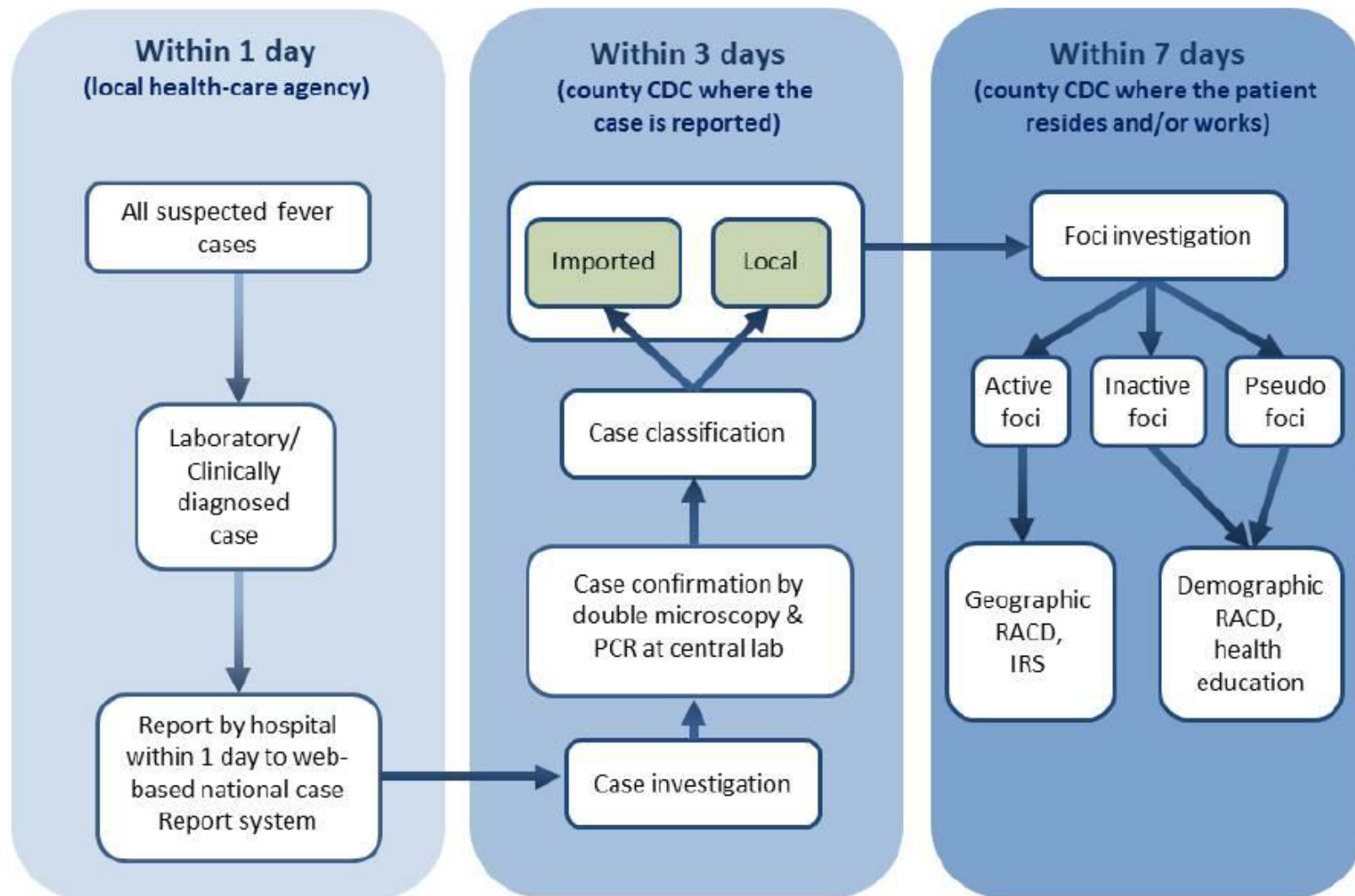
■ Similar as National Elimination Strategy

■ Elimination Strategy + MDA for Target population in foci village before transmission

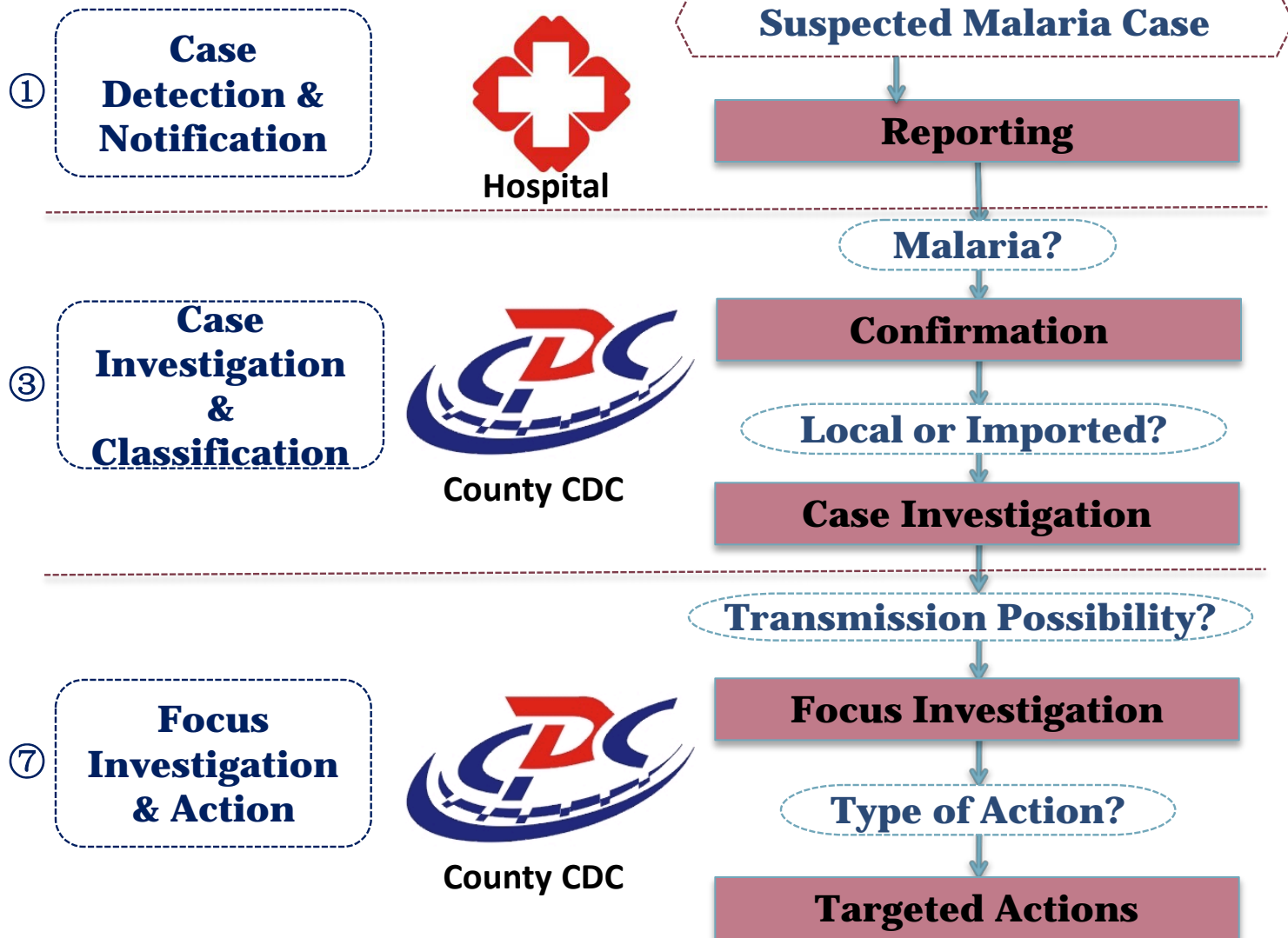
Differences between control & elimination stages



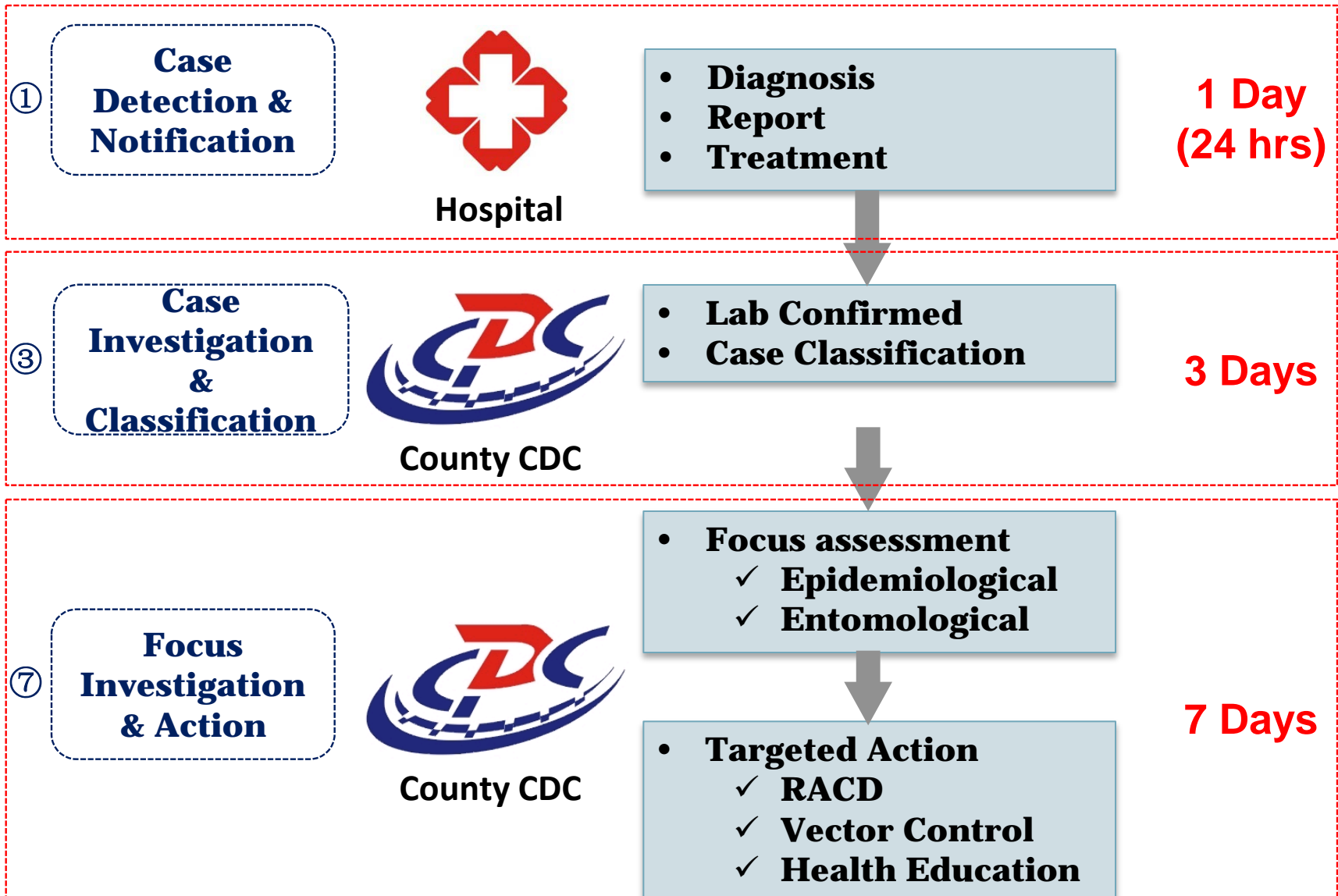
“1-3-7” elimination strategy in Jiangsu



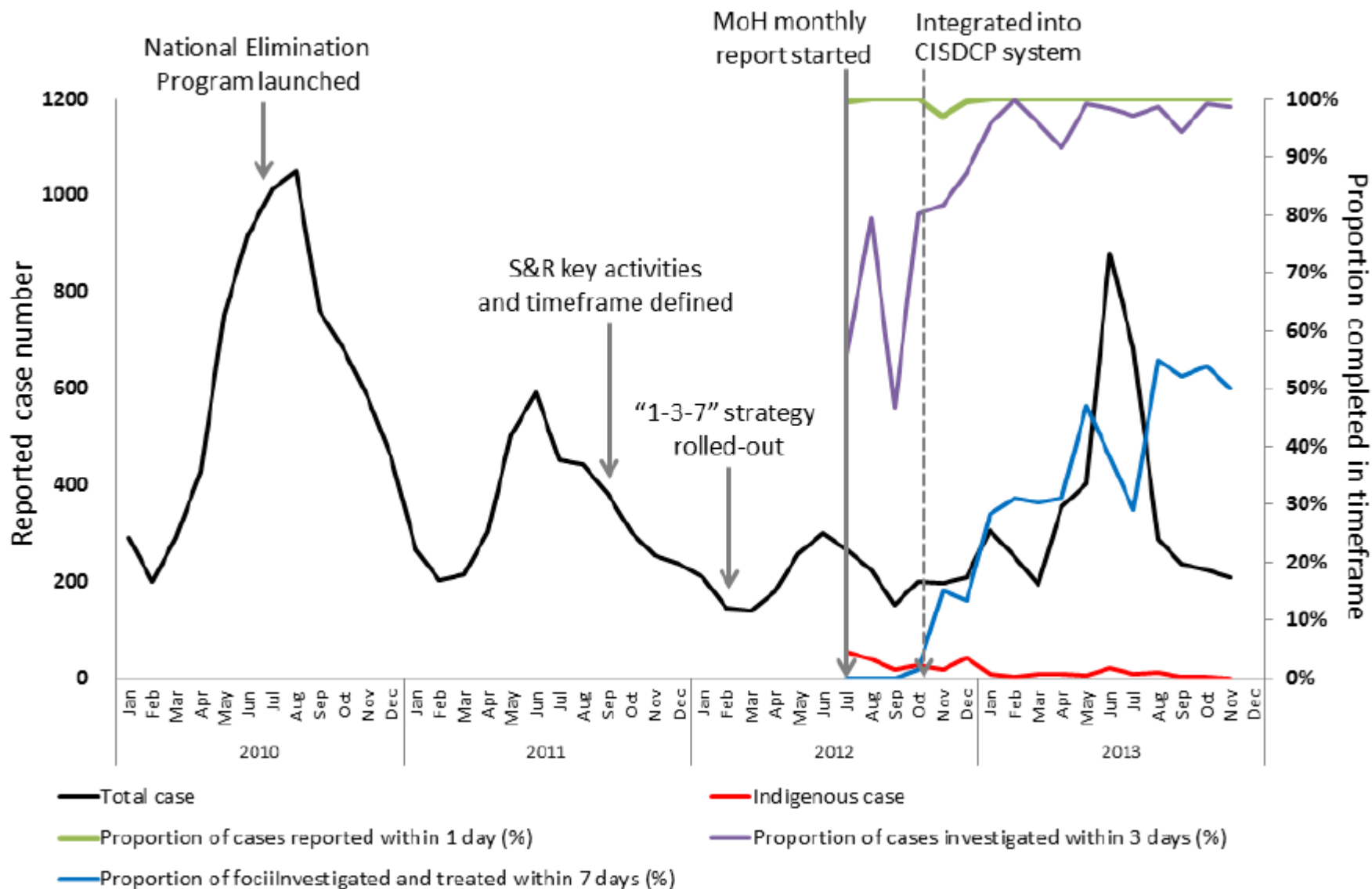
“1-3-7” Strategy for malaria elimination



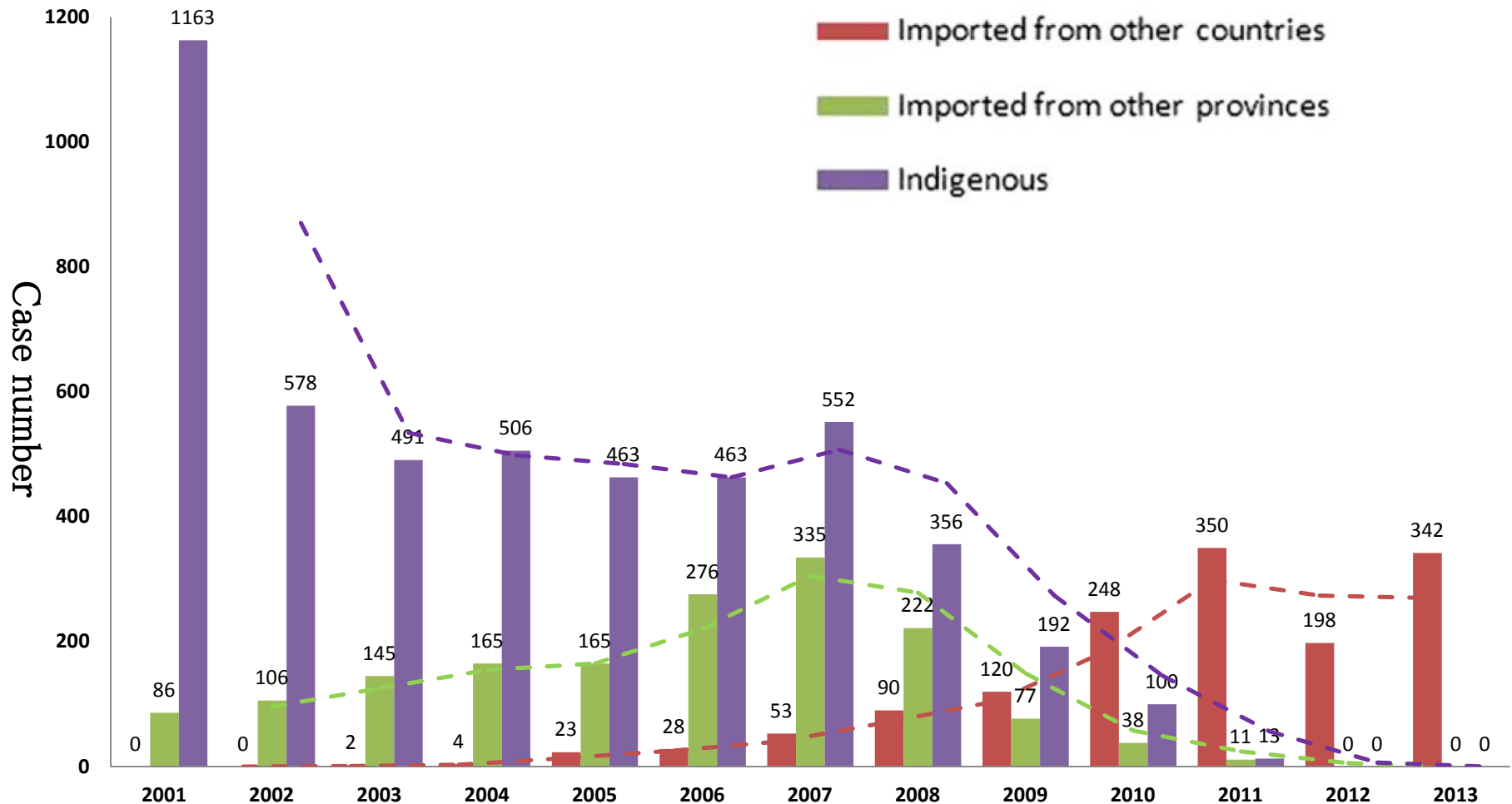
Working Procedure & timeframe



Implementation progress of “1-3-7” strategy in China



Progress of elimination in Jiangsu



Experiences

1. Government commitment

❖ National Malaria elimination program supported by Central Government as well as local governments

卫发教科工公财商质产国总武
展业和家勤部
生政育技信安政务
革息化
部委部部部部部局局局部部
后警 家勤部 旅部队 卫后 生勤
总总
总总
旅旅
卫卫
后后

卫疾控发〔2010〕47号

关于印发《中国消除疟疾行动计划（2010—2020年）》的通知

各省、自治区、直辖市及新疆生产建设兵团卫生局（局）、发展改革委、教育厅（教委、局）、科技厅（委）、工业和信息化主管部门、公安厅（局）、财政厅（局）、商务厅、检验检疫局、广播电影电视局、旅游局（委），各军区联勤部、各军兵种后勤部卫生部、总参三部后勤部、总参管理保障部、总政直工部、总装后勤部卫生局、军事科学院、国

文件

防大学、国防科技大学（校）务部卫生部（处），总后直属单位卫当部、武警部队各总队、机动师、指挥部后勤部。
为切实保障广大人民群众身体健康，促进经济与社会协调发展，响应联合国千年发展目标高级别会议提出的在全球根除疟疾的倡议，我国政府决定在2010年全面开展消除疟疾工作，到2020年全国实现消除疟疾的目标。为明确任务与措施，落实部门职责特制定《中国消除疟疾行动计划（2010—2020年）》（以下简称《行动计划》）。现将《行动计划》印发给你们，请结合各地、各部门的工作实际，切实落实《行动计划》，保证《行动计划》目标如期实现。



二〇一〇年五月十九日

（信息公开形式：主动公开）

江苏省人民政府办公厅文件

苏政办发〔2010〕112号

省政府办公厅关于转发省卫生厅等部门和单位江苏省消除疟疾行动计划（2010—2020年）的通知

各市、县人民政府，省各委、办、厅、局，省各直属单位：

省卫生厅、省发展改革委、省经济和信息化委、省教育厅、省科技厅、省公安厅、省财政厅、省商务厅、省广电局、省旅游局、江苏检验检疫局、南京军区联勤部卫生部、省军区后勤部、省武警总队后勤部制订的《江苏省消除疟疾行动计划（2010—2020年）》已经省人民政府同意，现转发给你们，请结合实际认真贯

Experiences

1. Government commitment

- ❖ Monitoring & evaluation of elimination program by MOH
- ❖ National game for microscopic examination by MOH

卫生部办公厅文件

卫办疾控发[2013]5号

卫生部办公厅关于印发 《消除疟疾考核评估方案(2013年版)》的通知

河北省、山西省、辽宁省、上海市、江苏省、浙江省、安徽省、福建省、江西省、山东省、河南省、湖北省、湖南省、广东省、广西壮族自治区、海南省、重庆市、四川省、贵州省、云南省、西藏自治区、陕西省、甘肃省、新疆维吾尔自治区卫生厅局：

为规范全国消除疟疾考核评估工作，我部组织制定了《消除疟疾考核评估方案(2013年版)》，现印发给你们。各地要根据本方案，结合本地实际情况，制订具体实施细则。



Experiences

2. Multi-section Cooperation & Communication

❖ Cooperation between Public Health and hospitals

- For case finding and cure
- For technical training

❖ Cooperation with local communities

- For foci investigation and action



Experiences



3. Strengthening health facilities and abilities

- ❖ The web-based case reporting system for important infectious diseases
- ❖ The web-based malaria management system

国家疾病报告管理信息系统 - Microsoft Internet Explorer

地址(D) http://202.106.123.35/cdc/login.do?formAction=index&moduleFlag=D1

疾病监测信息报告管理系统 Diseases Reporting Information System

搜索工具条

按照报告地区浏览 | 国家 | 上一级 | 下一级 | 报告单位 | 请选择

录入日期 起始: 2004-07-01 选择 终止: 2004-07-01 选择

未审核 全部 已审核 已删除

疾病名称 | 请选择 | 疾病分类 | 请选择

查询 新建 高级查询 重置

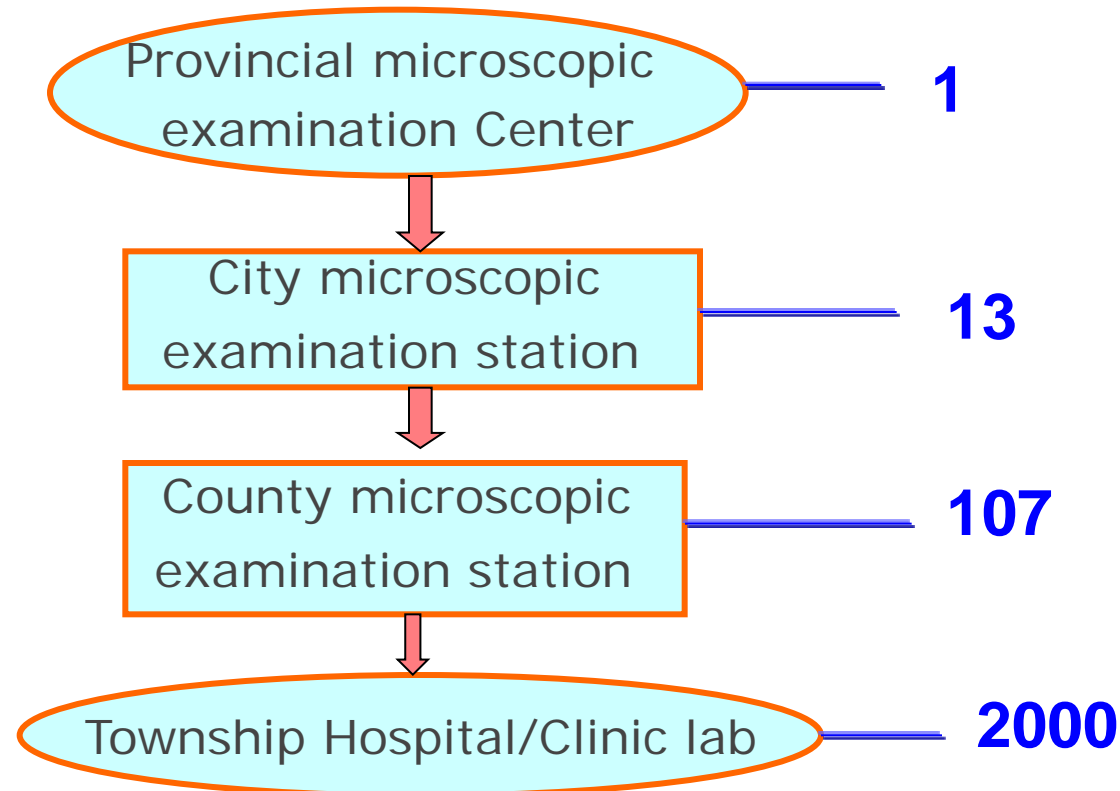
上报	姓名	性别	年龄	疾病名称	现住址	报告单位	类型	录入时间	
	刘吉丰	男	28岁	细菌性痢疾	河北省沧州市黄骅市骅西	沧州市黄骅市华西医院	临床	2004-07-01 13:05:00	修改 详细 删除
	周和前	男	85岁	细菌性痢疾	湖北省荆州市石首市桃花山镇鹿角头村六组	石首市桃花山镇卫生院	临床	2004-07-01 13:05:58	修改 详细 删除
	白奥妮	女	45岁	细菌性痢疾	河北省邢台市隆尧县尹村镇西尹村	隆尧县尹村中心卫生院	临床	2004-07-01 13:02:12	修改 详细 删除
	国亚伟	男	15岁	细菌性痢疾	河北省邢台市隆尧县尹村镇西尹村	隆尧县尹村中心卫生院	临床	2004-07-01 13:02:12	修改 详细 删除
	苏里卡尼塔西地尼	女	3岁	细菌性痢疾	新疆克孜勒苏柯尔克孜自治县托云乡6组	喀什地区第一人民医院	临床	2004-07-01 13:00:46	修改 详细 删除
	吴淑兰	女	63岁	细菌性痢疾	四川省乐山市犍为县金井镇青松4组	犍为县金井镇卫生院	实验室	2004-07-01 12:56:36	修改 详细 删除
	雷翰凯	男	2岁	细菌性痢疾	江苏省无锡市锡山区八士镇昆村桥外来人员居住区	八士卫生院	实验室	2004-07-01 12:56:27	修改 详细 删除
	肖方芳	男	3月	细菌性痢疾	重庆市市辖区(万州区除外)渝中区渝中区不评林新村	重庆市妇幼保健院	实验室	2004-07-01 12:53:24	修改 详细 删除
	祝必能	男	35岁	细菌性痢疾	四川省乐山市犍为县金井镇青松4组	犍为县金井镇卫生院	实验室	2004-07-01 12:50:34	修改 详细 删除
	单小毛	女	11月	细菌性痢疾	湖南省长沙市岳麓区铜盆岭镇大河查	长沙市银太有限公司裕湘医院	临床	2004-07-01 12:49:58	修改 详细 删除
	程宗军	男	66岁	细菌性痢疾	四川省乐山市犍为县金井镇	犍为县金井镇卫生院	实验室	2004-07-01	修改 详细 删除

Experiences



3. Strengthening health facilities and abilities

❖ Establish network of microscopic examination

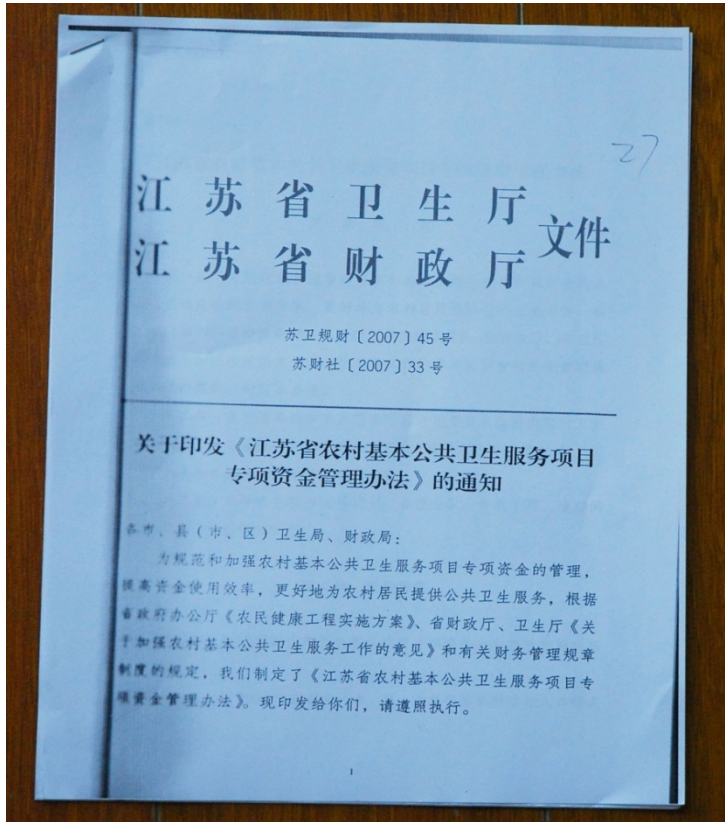


Experiences



3. Strengthening health facilities and abilities

❖ Rural area public health service program



- New country medical cooperative project \geq ¥120 /person/year
- Country basic public health serve project \geq ¥30 /person/year

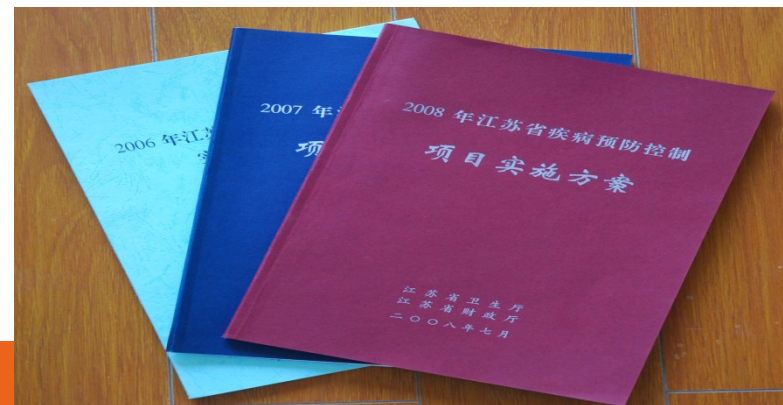
Experiences



4. Financial support

Unit: RMB ¥10,000

Year	Malaria elimination funds in Jiangsu		
	Provincial	Central	G F
2009	340	157	198
2010	340	253	1390
2011	490	295	1469
2012	490	878	0
2013	490	798	0



Challenges



1. Political:

- ❖ Sustaining political support form Central & local government for malaria elimination

2. Financial:

- ❖ Sustaining financing support form Central & local government for malaria elimination

3. Public health & hospital:

- ❖ Maintain facility & ability for diagnosis & treatment

Challenges



4. Technical:

- ❖ **Diagnosis for low parasitemia infection**
- ❖ **Classification of the source of infection**
- ❖ **Vivax radical treatment**
- ❖ **Insecticide/drug resistance**
- ❖ **Surveillance & response for post elimination**

Need

Actions

Tools

**Passive
detection**

Low parasitemia

**Find
last
local
case**

**Active/reactive
survey**

Asymotomatic

**Case
identification**

Local/import

Thanks

