



Mortality Use Cases of ICD-10 in Thailand 2000-2013

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Implementation of ICD in Thailand

- 1950 ICD-7 for mortality statistics
- 1963 ICD-8
- 1980 ICD-9
- 1994 ICD-10



Pattern of death and preventions

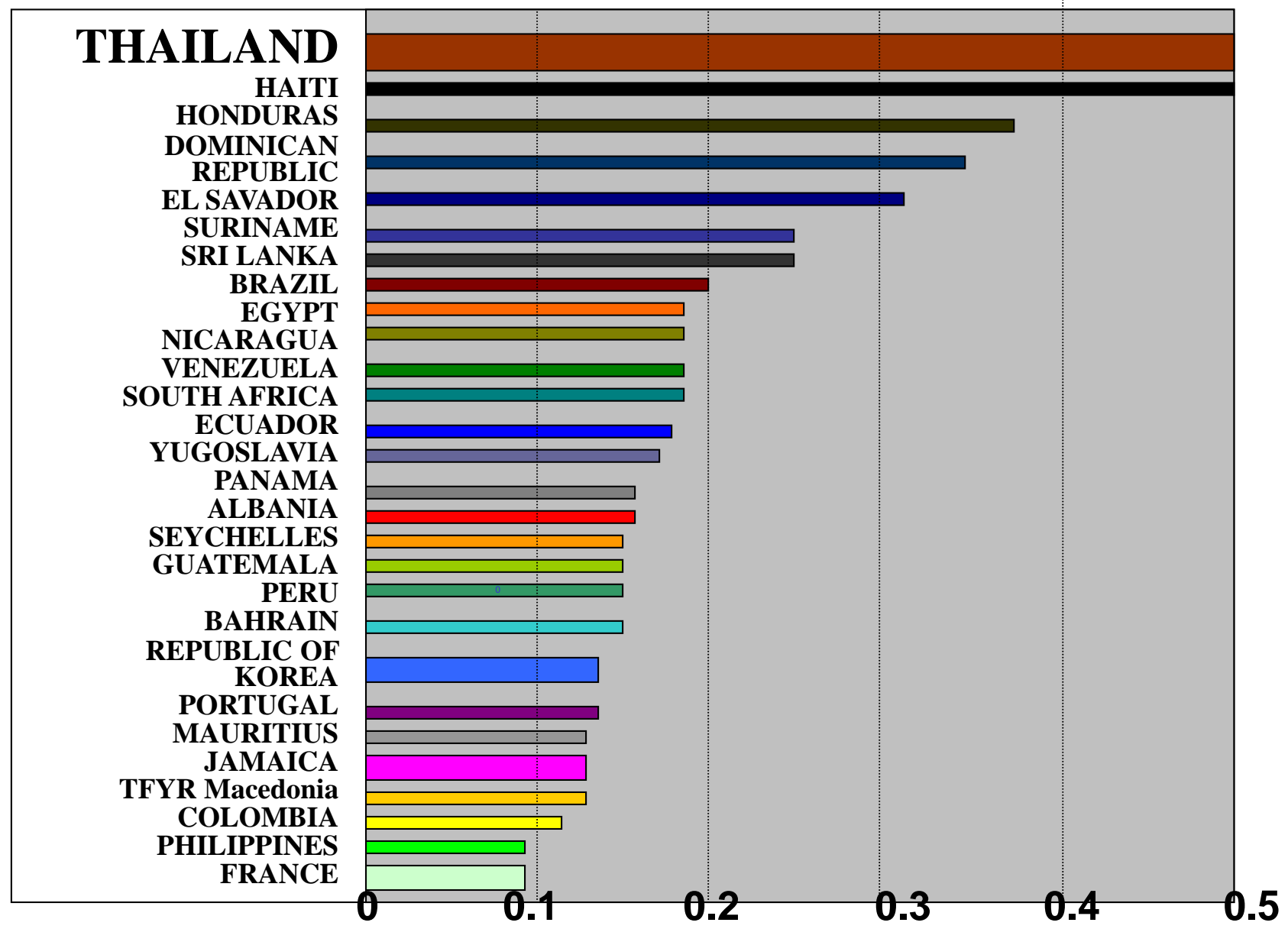
Period	Leading cause of death	Interventions
1950 to 1965	Infectious Diseases	Vaccination, Mosquito controls, Sanitation
1966 to 1980	Road Traffic Accidents	Helmet and seat belt wearing laws, Improvement of Road & Highway condition, Campaign for “No drink and drive”
1981 to 1999	Cardiovascular Diseases	Campaign for regular exercise, Diet and obesity control, Regular health check-up



Vital Registration in Thailand

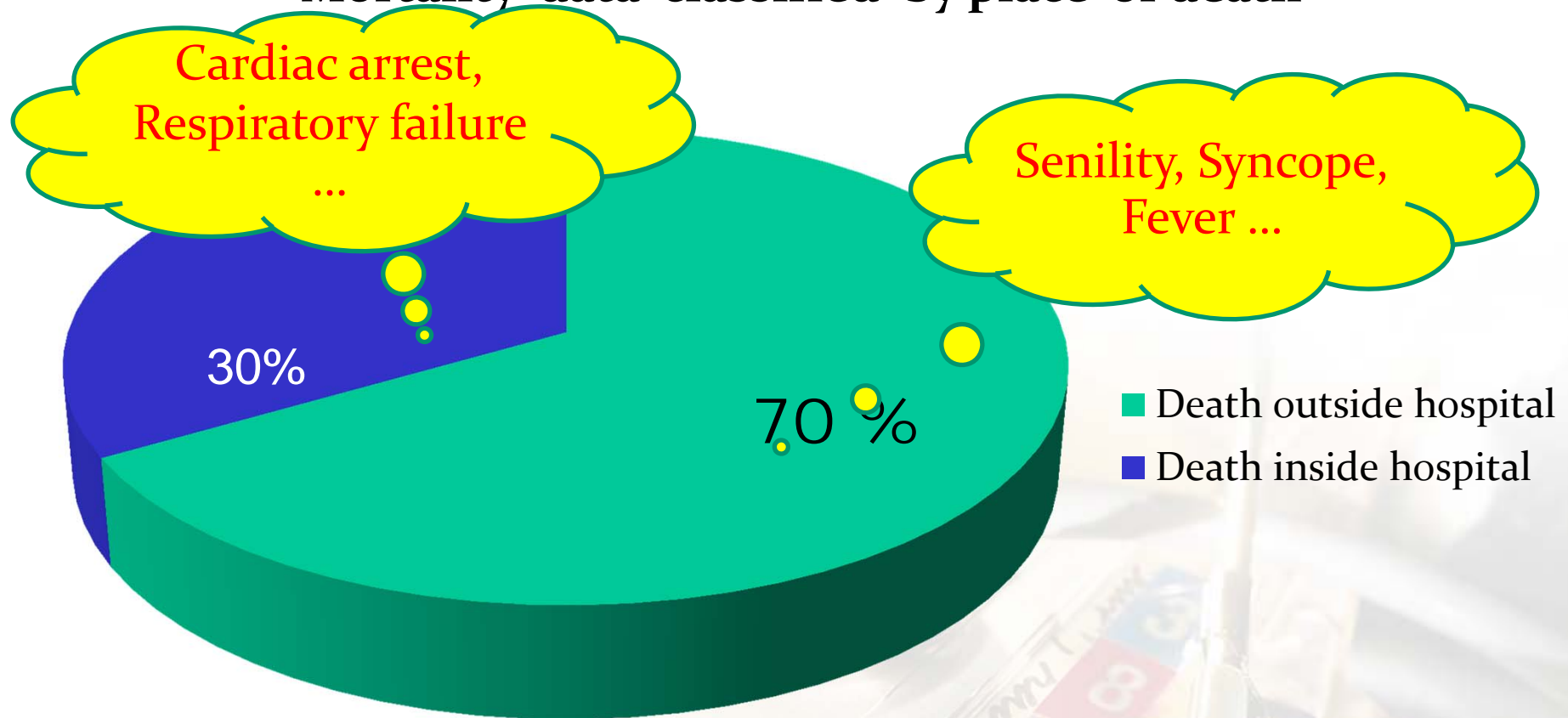
- Birth and Death Registration
 - Ministry of Interior
- Mortality Statistics
 - Ministry of Public Health
- No problem in coverage rate (completeness) of registration (98-100%) since 1995
- Major problem was “quality of cause of death”

Proportion of ill-defined deaths



Sources of cause of death data

Mortality data classified by place of death





Improvement of mortality data quality from hospital

1. Implementation of international form of medical death certificate - 1999-2001 AD.
2. Create manual for doctor to write death cert.
3. Retraining of medical doctors 1999-2004
4. Add “How to write good medical death certificate?” into medical school curriculum – success in 2000
5. Introduction of yearly orientation course for newly graduated medical doctor in every province



Improvement of mortality data quality from outside hospital

1. Pilot study on “possibility” to assign medical doctors in public hospital to write “cause of death” in death certificate from outside hospital – 2001-2002 (failed)
2. Researches on feasibility to use “**verbal autopsy**” for quality improvement of cause of death (outside hospital) 2003-2006
3. Pilot study to add verbal autopsy as a tools to improve quality of cause of death data 2007-2010 in sixteen provinces

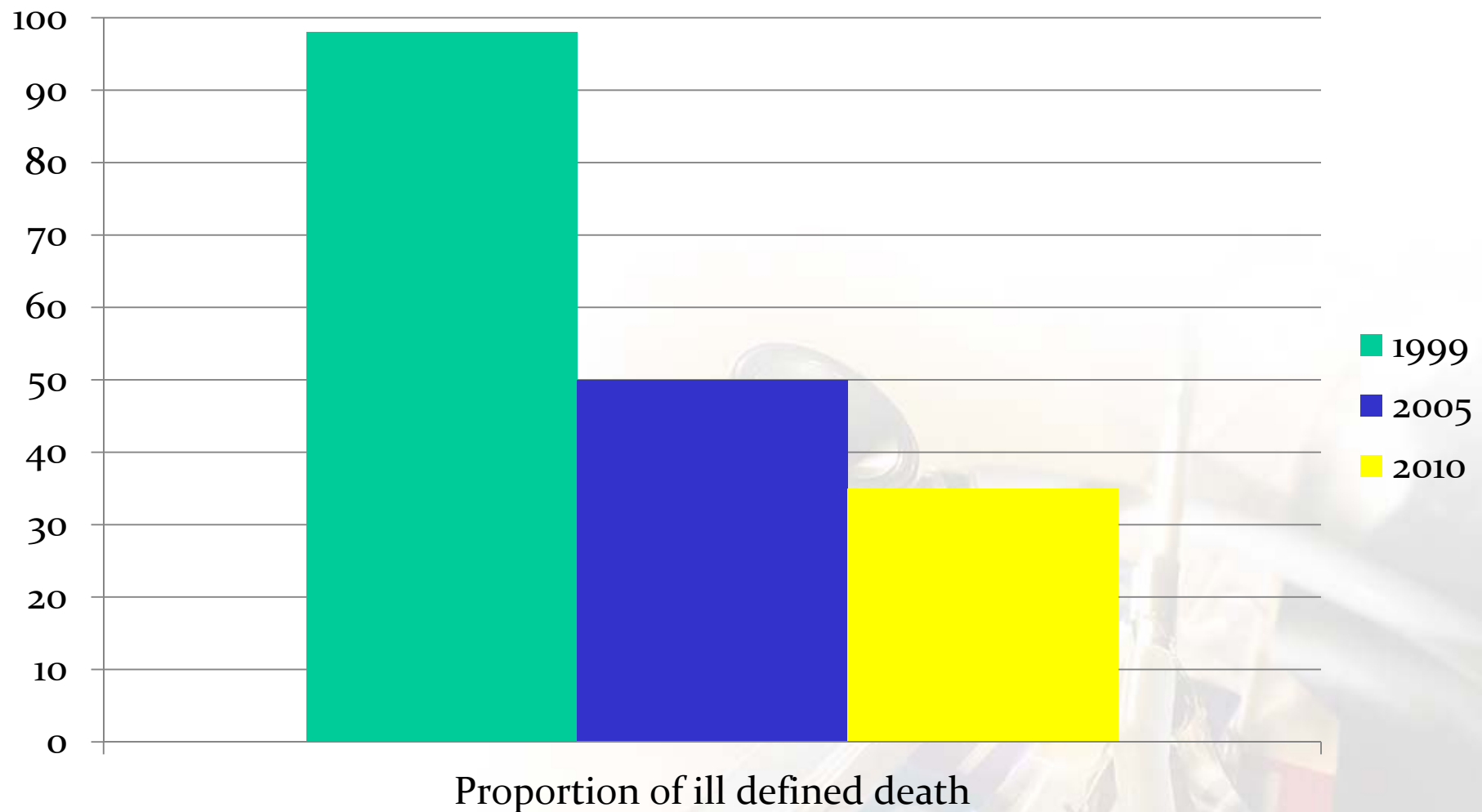


System Change

- Old system
 - Direct death report to local registration office
- New system
 - Cause of death verified by local health office before reporting to local registration office
 - Pilot test in 16 provinces
 - Plan for fully implementation 2012-2013

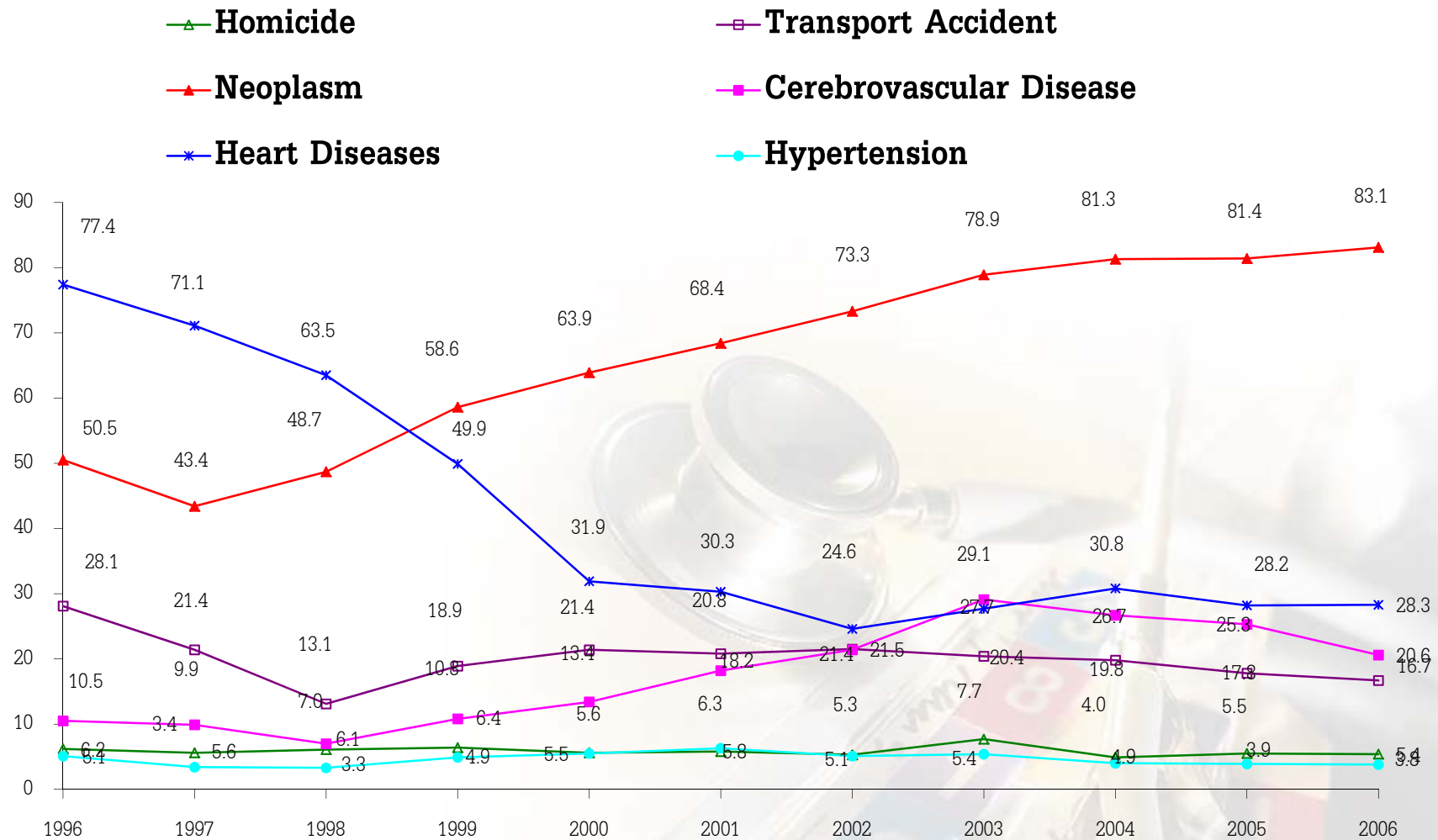


Proportion of ill defined death





Change in pattern of causes of death (non communicable disease)





Current Activity-2013

- Intra-hospital Death, Cause of Dead Verification and report
 - Web Service to verify causes of death input into the dead certificate by doctor
- Intra-hospital Death, Cause of Dead report
 - Cause of death verified by local registration officer using verbal autopsy (Thai version)
 - Full implementation 2014



Lesson learned from 10+ years experiences

- 4 Key success factors
- 1. **Change management of all key-persons involving in health information system**
 - **Executive groups in Ministry of Health and Ministry of Interior**
 - **All medical doctors**
 - **All medical schools committee**
 - **Verbal autopsy team – public health workers**




Lesson learned from 10+ years experiences

- 4 Key success factors
- **2. Co-operation with all stakeholders organization in the country**
 - **Ministry of Health**
 - **Ministry of Interior**
 - **All Medical Schools**
 - **All Public and Private Hospitals**
 - **All Health Offices**



Lesson learned from 10+ years experiences

- 4 Key success factors
 - 3. **Creation of new leaders in all level**
 - **Doctors as trainers for new doctors**
 - **Verbal autopsy leaders**
 - **Provincial health executives**
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Lesson learned from 10+ years experiences

- 4 Key success factors
- 4. Just Keep Going !

