

# Philippine PEAS : Improving Quality in a Developing Newborn Screening Program

Eva Maria Cutiongco-de la Paz, Carmencita D.Padilla, Juanita A. Basilio, and  
Bradford L. Therrell

*National Institutes of Health, University of the Philippines Manila, Manila, Philippines, Department of  
Health, Manila, Philippines, and The National Newborn Screening and Genetics Resource Center,  
Austin, Texas, USA.*

# The Philippines

- Population
  - 12<sup>th</sup> most populous country in the world
  - 7<sup>th</sup> in Asia
  - 2<sup>nd</sup> in Southeast Asia
- Geography
  - >7000 islands
  - 3 major groups of islands
  - 17 regions
  - 81 provinces



# The Philippine NBS Program is young!

Started in 18 private  
and 6 govt hospitals in 1996

Republic Act 9288 : Newborn  
Screening Act 2004

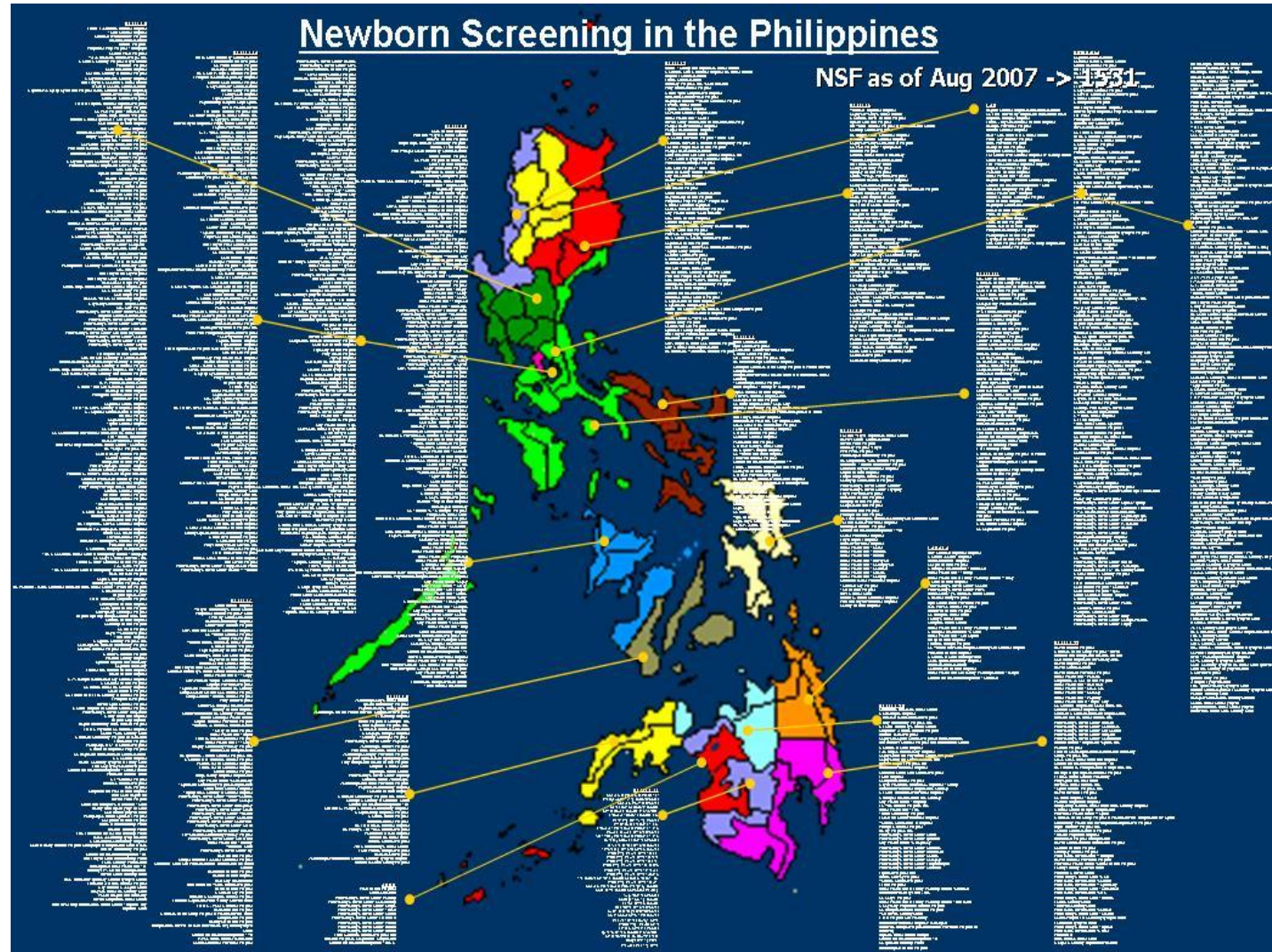
Institutionalized the  
National Comprehensive  
Newborn Screening  
System



## METRO MANILA

Capitol Medical Center  
Cardinal Santos Medical  
Center  
Children's Medical Center  
Chinese General Hospital  
De Los Santos Medical Center  
Dr. Victor R. Potenciano  
Medical Center  
FEU-NRMF  
Manila Doctors Hospital  
Mary Chiles General Hospital  
MCU-FDTMF  
Medical Center Manila  
Metropolitan Hospital  
Ospital ng Maynila  
Our Lady of Lourdes Hospital  
Perpetual Help Medical  
Center  
Philippine Children's Medical  
Center  
Philippine General Hospital  
Quezon City General Hospital  
Quirino Memorial Medical  
Center  
Rizal Medical Center  
St. Luke's Medical Center  
St. Martin de Porres Hospital  
UERMMM  
United Doctors Medical  
Center

# Newborn Screening Facilities as of October 2011

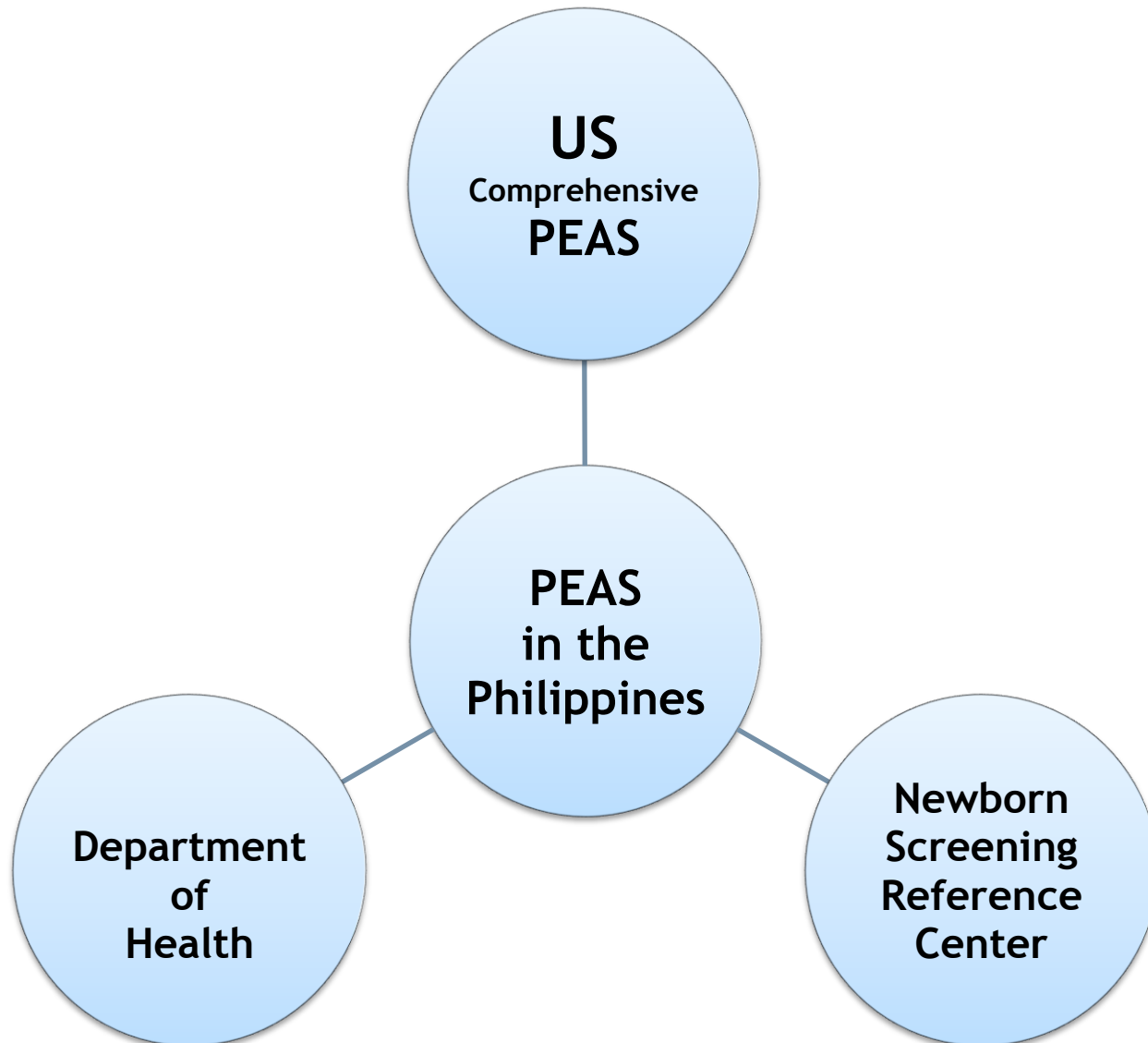


38 % national coverage

60% born at home

**3545 Newborn Screening Facilities**

# How PEAS came to be in the Philippines







Dr Therrell shares the process of developing PEAS in the US.

# Objectives

The Philippine PEAS monitors the quality and improvement in the implementation of the newborn screening at various levels:

- ▣ Center for Health Development - regional level
- ▣ Newborn Screening Facilities - collecting facility level
- ▣ Newborn Screening Centers - laboratories

# Evaluation Process

- Review and validate responses to the PPEAS
- Review records and other relevant information
- Discuss problems and possible solutions
- Assess progress in achieving successful newborn screening implementation
- Overall performance assessment
- Plans for improvement



# Our kind of PEAS

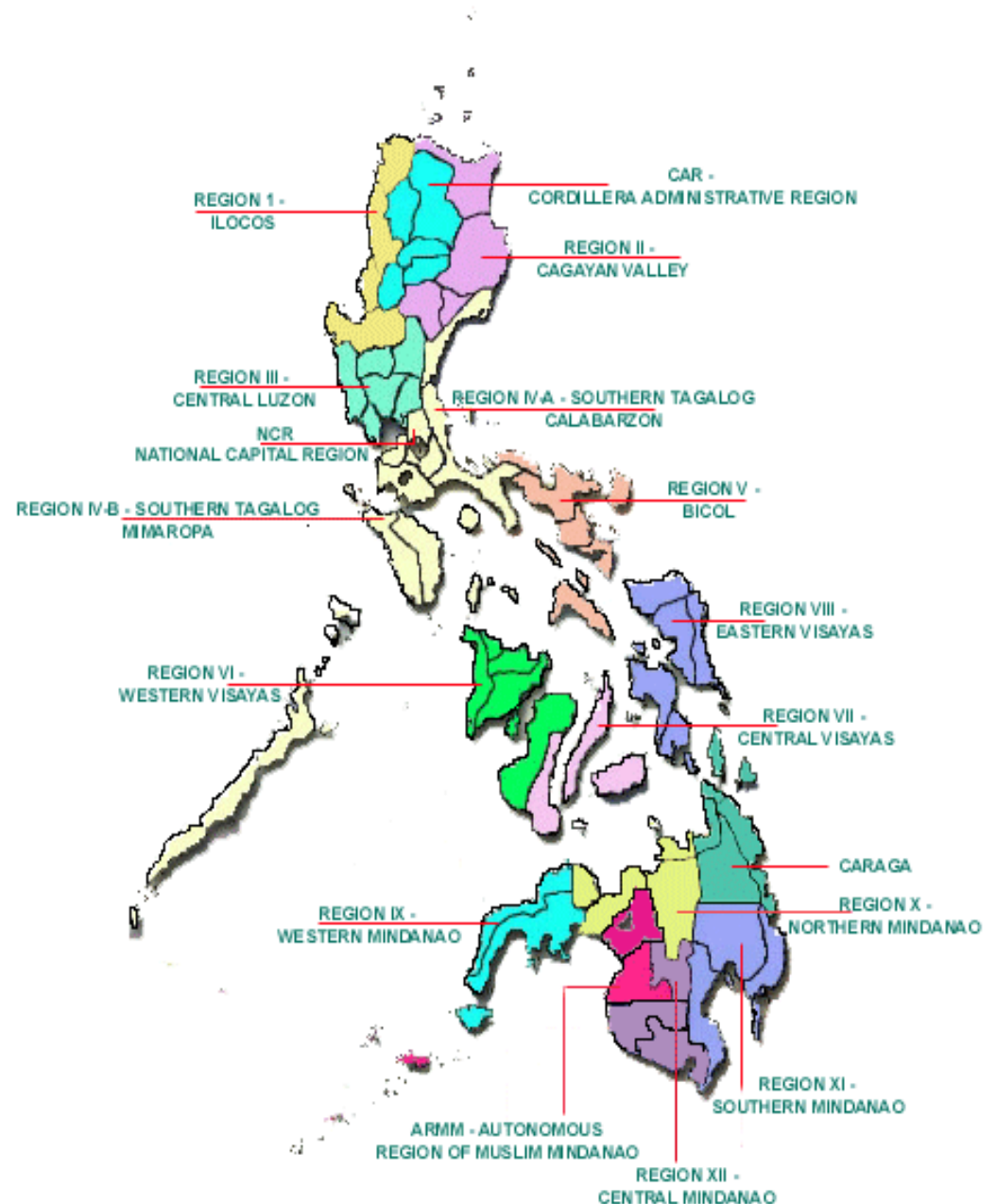
- PEAS for the Centers for Health Development  
(Regional Implementers - regional offices of the Department of Health)
- PEAS for the Newborn Screening Health Facilities  
(hospitals and community health centers where newborn screening samples are taken)
- PEAS for the Newborn Screening Centers  
(screening laboratories)

# PEAS for DOH Regional Offices

There are 17 Regional  
DOH Offices

National Institutes of Health

NBS MAP OF THE PHILIPPINES



# PEAS for DOH Regional Offices

## Objectives

- Identify the gaps and the subsequent solutions in the implementation of newborn screening program at the regional level (Department of Health's Center for Health Development/CHD) – annual for all regions

# PEAS for DOH Regional Offices

2. Determine the status of communication and reporting between the CHD and key agencies
  - DOH Central Office
  - Newborn Screening Reference Center
  - Newborn Screening Center
  - Newborn Screening Health Facilities
  - Local stakeholders, i.e. local government units and other organizations
3. Assess the overall performance of the CHDs

# PEAS for DOH Regional Offices

The tool for the CHDs is composed of 52 items divided into 6 major areas:

- Operational Structure, i.e. available NBS staff, their training and competency;
- Plan of Action for newborn screening;
- Systems in Place - financing scheme for NBS activities, information system, network and linkages, monitoring scheme, documentation of NBS activities, annual program implementation;



# PEAS for DOH Regional Offices

- Health Promotion Plan - communication plan and training program;
- Contingency Plans; and
- Other Findings & Recommendations.

These correspond to the major elements of the national program's strategic plan: Health Facility Involvement, Systems, Operations and Network, Service Delivery Package, Advocacy, Financing, and Promotions

III. Systems in Place (28 points)

1 Leveraging					
i.	Provision of newborn screening kits	Yes	No	In Progress	_____
ii.	Provision for confirmatory testing	Yes	No	In Progress	_____
iii.	Provision of supplemental budgets for LGU activities	Yes	No	In Progress	_____
2 Information system					
i.	Updated directory of all health facilities including lying ins, birthing facilities, indicating the name of the health facility NBS coordinator, contact details, status of implementation (active/inactive), and level using DOH categories [Accomplished CHD-AN2009-01 (Directory of Health Facilities) must be available upon request]	Yes	No	In Progress	_____
ii.	Statistics for:				
a.	Number of deliveries	Yes	No	In Progress	_____
b.	Number of newborns screened	Yes	No	In Progress	_____
c.	Positive screens	Yes	No	In Progress	_____
d.	Confirmed positive	Yes	No	In Progress	_____
e.	Lost to follow-up	Yes	No	In Progress	_____
f.	Number of unsatisfactory samples	Yes	No	In Progress	_____
g.	Number of dissents	Yes	No	In Progress	_____
h.	List of active health facilities indicating status of implementation (active/inactive)	Yes	No	In Progress	_____
iii.	Reporting system/Tracking and frequency of reports given to NSRC (documented reporting)	Yes	No	In Progress	_____
a.	Reports submitted by LGUs to CHD				_____
b.	Reports submitted by NSFs to CHD				_____
c.	Reports submitted by CHDs to DOH National Office and NSRC				_____
iv.	Directory of specialists for referral and case management with contact details and clinic hours	Yes	No	In Progress	_____
v.	Records are easily retrievable within 15 minutes	Yes	No		_____
3 Network and linkages					
i.	Established network with LGUs and other stakeholders (OB, pediatrics, midwives and other health professionals) (MOAs or written agreement with LGUs & others must be available upon request)				
a.	Advocacy	Yes	No	In Progress	_____
b.	Recall of patients	Yes	No	In Progress	_____
c.	Financing	Yes	No	In Progress	_____
ii.	Referral system (written protocol)	Yes	No	In Progress	_____
4 Monitoring scheme					
i.	Monitoring plan containing				

	<i>(include monitoring plan as attachment)</i>			
a.	Health facilities visited in the previous year	Yes	No	In Progress
	Health facilities to be visited			
b.	Frequency (at least once a year)	Yes	No	In Progress
ii.	Monitoring checklist (from NSRC)	Yes	No	In Progress
	<i>(Written exit report must be available upon request)</i>			
iii.	Documentation of monitoring conducted reflecting issues and concerns, findings/problem areas, recommendations, agreements, and follow-up	Yes	No	In Progress
	<i>[include monitoring report (CHD-AN2009-02) as attachment]</i>			
5	Documentation of planning and consultative meetings reflecting issues and concerns, agreements and action points	Yes	No	In Progress
6	Annual program implementation review with documentation	Yes	No	In Progress
7	Logistics Management			
i.	Number of kits procured	Yes	No	In Progress
ii.	Number of kits distributed	Yes	No	In Progress
iii.	Stock Record	Yes	No	In Progress
	a. Allocation list			
	b. Quantity			
	c. Balance			

**IV. Health promotion plan (15 points)**

**A. Communication Plan**

1	A comprehensive, written communication plan prepared for the different stakeholders of the program exists* <i>*the communication plan solely for NBS targeting the different stakeholders</i>	Yes	No	In Progress
2	IEC/reference materials available			
i	RA 9288, IRR, and Presidential Proclamation	Yes	No	In Progress
ii	Manual of Operations	Yes	No	In Progress
iii.	Posters	Yes	No	In Progress
iv.	Brochures	Yes	No	In Progress
v	Sample collection and Inherited Metabolic Disorders for the	Yes	No	In Progress
vi	Guide for Coordinators and Inherited Metabolic Disorders for the	Yes	No	In Progress
vii	Flipcharts	Yes	No	In Progress
vii	Innovations (IEC materials)	Yes	No	In Progress
viii	DOH and PhilHealth issuances	Yes	No	In Progress
3	A method for periodic review and update of the plan.	Yes	No	In Progress

**B. Training program**

- |  |     |    |             |       |
|--|-----|----|-------------|-------|
| 1 Training plan (indicating target participants, content, objectives, schedule, cost of training and funding source) | Yes | No | In Progress |       |
| 2 Training materials   | Yes | No | In Progress | _____ |
| 3 Follow-up after training   | Yes | No | In Progress | _____ |
| 4 Directory of trained health workers<br><i>(Directory must be available upon request)</i>                           |     |    |             | _____ |

- V. Innovation Strategies and Best Practices
- Innovation projects implemented by CHD to increase NBS coverage in the region \_\_\_\_\_

**VI. Significant Findings, Agreements and Recommendations**

SCORE: \_\_\_\_\_

Name of Interviewer/s

Signature

- 1
- 2
- 3
- 4

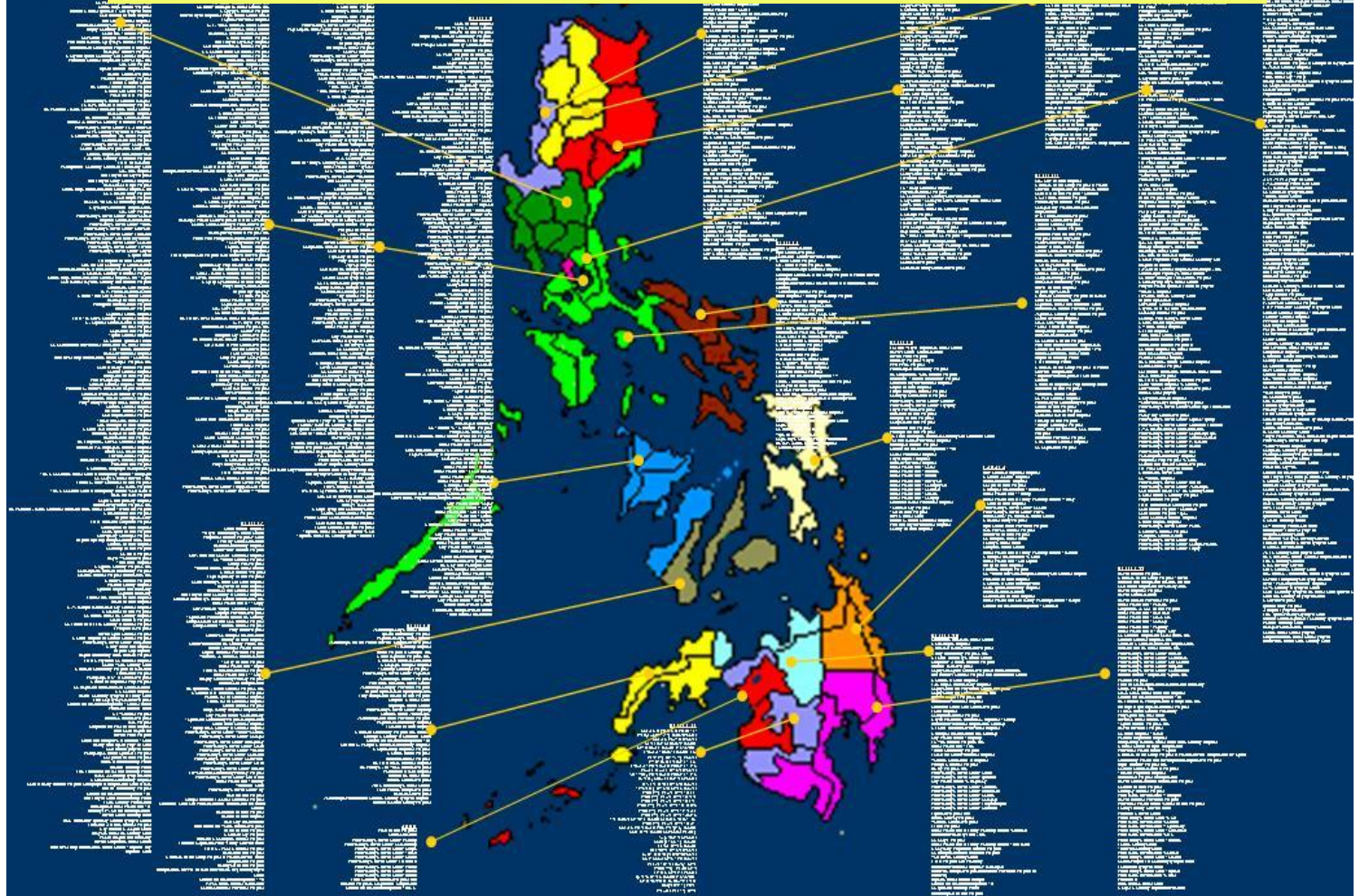
Total Points



## DOH Regional Office Review



# 3545 Newborn Screening Facilities



Newborn Screening Facilities as of October 2011

# PEAS for the Newborn Screening Facilities

## Objectives

1. Identify the status of NBS program implementation based on the existence of (a) adequate personnel and manpower, predefined coverage targets, feedback, and systematic NBS implementation, and (b) information, education and advocacy campaign programs within the hospital for its personnel and clients;

# PEAS for the Newborn Screening Facilities

## Objectives

2. Determine the problems encountered, solutions provided and other concerns including :  
information, education and advocacy campaigns within the hospital for personnel and clients, and NSC issues regarding sample collection materials, relaying of results, recall/follow-up compliance, billing and fee collection, and case monitoring;

# PEAS for the Newborn Screening Facilities

## Objectives

3. Verify the status of NBS program performance based on percentages and averages of newborns screened compared to the number of deliveries and walk-in patients, and;
4. Determine perceptions from clients regarding the adequacy and efficiency of NBS service provision.



3	There are targets indicated in the action plan	YES	NO	MAYBE	
4	The NBS action plan targets are being met	YES	NO	MAYBE	
5	The health facility has an advocacy program	YES	NO	MAYBE	
6	A newborn screening advocacy program is being implemented	YES	NO	MAYBE	
<b>C. Implementation of NBS program</b>					
1	Motivating parents to have their newborns screened is never a problem	YES	NO	MAYBE	
2	Most patients are motivated to have NBS service once they know about it	YES	NO	MAYBE	
When is motivation of parents done?					
3	Collecting the NBS blood samples is done routinely and on time	YES	NO	MAYBE	
What is the usual time of collection for normal deliveries?					
What is the usual time of collection for CS deliveries?					
4	A logbook of patients is maintained	YES	NO	MAYBE	
Where is the logbook kept? Nursery____; NICU ____; Laboratory ____; Pedia Dept ____					
5	A quality check of samples is being made prior to submission to NSC	YES	NO	MAYBE	
Who is responsible for the quality check of samples?					
6	Samples are promptly sent to the NSC	YES	NO	MAYBE	
Are samples sent daily? If not, why?					
If not sent daily, how many times in a week?					
7	Samples sent to the NSC have never been rejected due to contamination or insufficiency	YES	NO	MAYBE	
8	Courier service is prompt and efficient for pick up of samples	YES	NO	MAYBE	
What is your courier service? Air21__ ; DHL__ ; TNT__ . LBC__ ; JRS ____ Others_____					
9	There were no problems in the service of the courier in the past?	YES	NO	MAYBE	
If yes, please elaborate					
10	Normal results received from the NSC are relayed to the parents immediately	YES	NO	MAYBE	

Sample page from the PEAS form for the NSF



## Evaluation of the Newborn Screening Facility (NSF)

This visit aims to determine the factors at play in the NBS implementation, particularly the problems which impact on achieving DOH's goal of *"every parent informed, every newborn screened, every health facility equipped and with health practitioner trained to provide newborn screening service"*, in response to RA 9288 or the Newborn Screening Act of 2004 and its Implementing Rules and Regulations signed last October 2004. Results of the visit will be collated and used for improving implementation in your health facility and in all the health facilities nationwide. Thank you for your cooperation.

Respondent/s/ Designation or Position /Unit

Newborn Screening Facility (NSF)

1 \_\_\_\_\_

2 \_\_\_\_\_

3 \_\_\_\_\_

4 \_\_\_\_\_

Contact Nos. of and Address

A. Existence of an Effective Newborn Screening Team					Remarks/Action to be Taken
1	The health facility has a working NBS Team	YES	NO	MAYBE	
2	The composition of the NBS team is appropriate	YES	NO	MAYBE	
	Who are the members of the NBS team? (please enumerate)				
4	All NBS team members underwent NBS orientation/training	YES	NO	MAYBE	
5	All NBS Team members are well-informed about newborn screening	YES	NO	MAYBE	
6	The role of each NBS Team member is clearly defined	YES	NO	MAYBE	
7	Every NBS Team Member effectively performs his/her tasks	YES	NO	MAYBE	
B. Existence of a Newborn Screening Program in the Health Facility					
1	The health facility has a `newborn screening plan of action'	YES	NO	MAYBE	
2	The newborn screening action plan for the year is being implemented	YES	NO	MAYBE	

Sample page from the PEAS form for the NSF

	If not, please explain				
11	Abnormal results received from the NSC are relayed promptly to the parents	YES	NO	MAYBE	
	If not, why?				
12	The health facility has a well-defined system of recalling patients	YES	NO	MAYBE	
13	The health facility can easily recall patients when necessary	YES	NO	MAYBE	
	What are the usual problems encountered?				
14	The health facility can easily refer, manage and recall positive cases	YES	NO	MAYBE	
	Who does the recall of patients?				
15	Did NIH assist in recall of patient in the past?	YES	NO	MAYBE	
16	DID DOH- CHD assist in recall of any patient in the past?	YES	NO	MAYBE	
17	Did the LGU assist in the recall of any patient in the past?	YES	NO	MAYBE	
<b>D. Awareness on Availability of NBS Service in the Health Facility</b>					
1	All personnel in the health facility are aware that NBS is available in the facility	YES	NO	MAYBE	
<b>E. Adequacy of NBS IE materials</b>					
1	NBS posters are posted in strategic places in the health facility	YES	NO	MAYBE	
2	NBS brochures are available for target patients	YES	NO	MAYBE	
<b>F. Administrative Support for NBS implementation</b>					
1	Administrative support is given to the NBS Team	YES	NO	MAYBE	
2	Administration provides Financial support i to ensure smooth implementation of NBS	YES	NO	MAYBE	
3	The Local Government Unit provides support in financing the health facility's NBS program	YES	NO	MAYBE	

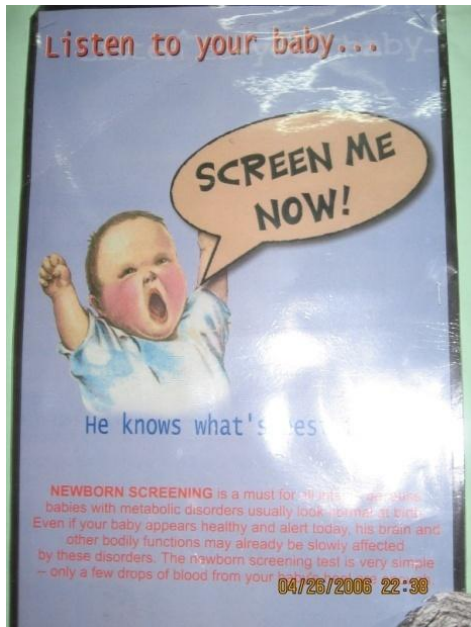
Sample page from the PEAS form for the NSF

<b>G. Existence of a Monitoring and Evaluating Mechanism on the Implementation of NBS</b>					
1	The health facility administration conducts a quarterly assessment of the implementation of NBS program	YES	NO	MAYBE	
2	The NBS team conducts a quarterly assessment to review implementation and problems encountered.	YES	NO	MAYBE	
3	The health facility administration conducts an annual assessment of the implementation of NBS program	YES	NO	MAYBE	
4	The NBS team conducts an annual assessment to review implementation and problems encountered.	YES	NO	MAYBE	
<b>H. Transactions with the NSC</b>					
1	The health facility is using the Purchase Order (PO) system?	YES	NO	MAYBE	
If not, why?					
2	Purchase orders are processed and received within 7 working days from the NSC	YES	NO	MAYBE	
3	Supplies received from the NSC are always complete and in good condition	YES	NO	MAYBE	
4	Rejected samples are immediately conveyed by the NSC for immediate recall of patients	YES	NO	MAYBE	
5	Billing statements received from the NSC are always accurate and on-time	YES	NO	MAYBE	
6	Health facility is able to pay the purchase order within the 45-day payment period	YES	NO	MAYBE	
If not, why not?					
7	Normal results are relayed within 7 working days by the NSC thru email	YES	NO	MAYBE	
8	Abnormal results for recall are relayed immediately by the NSC	YES	NO	MAYBE	
9	Monthly summary of results is regularly received from the NSC	YES	NO	MAYBE	
10	Inquiries are immediately entertained and handled by the NSC	YES	NO	MAYBE	
11	Concerns are given prompt action by the NSC	YES	NO	MAYBE	

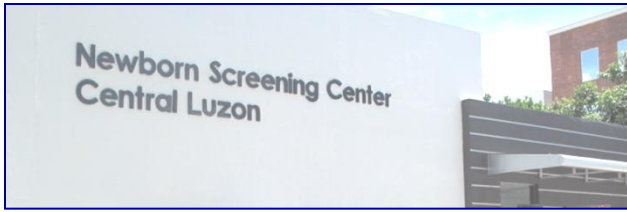
Signature and Date Accomplished:

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**Sample page from the PEAS form for the NSF**



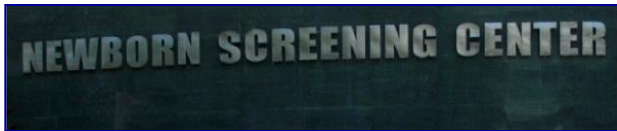
## Newborn Screening Facility Review



NSC - Central Luzon



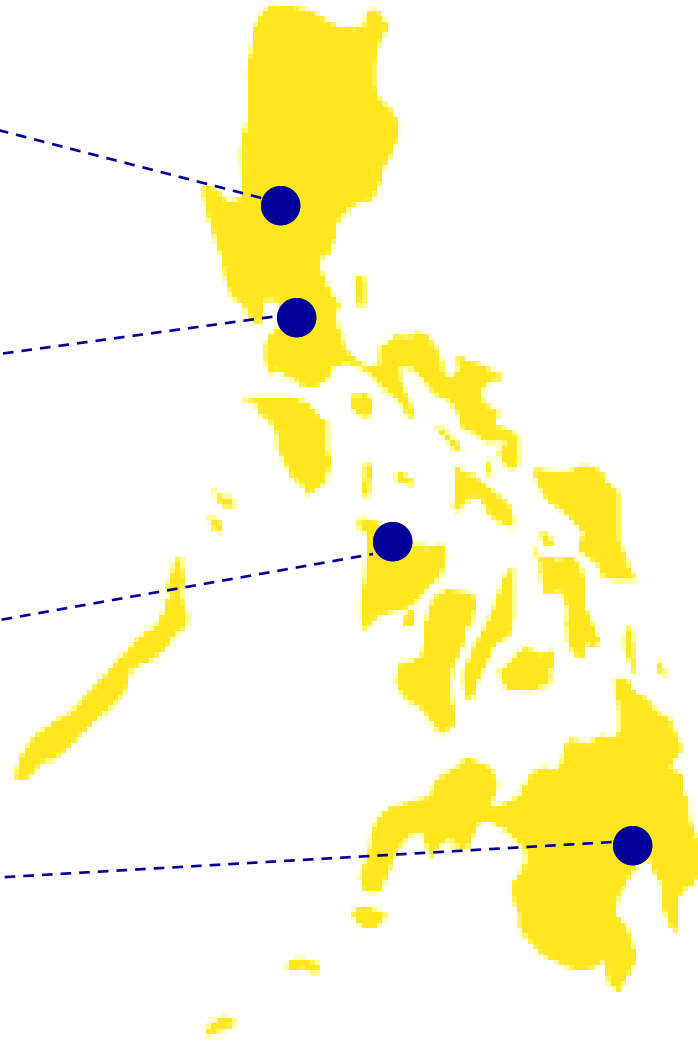
NSC - NIH



NSC - Visayas



NSC - Mindanao



## Newborn Screening Centers (Laboratories)



# PEAS for the Newborn Screening Centers

## Objectives

1. Evaluate the performance of the systems and procedures of the Newborn Screening Center by assessing all of its components
2. Identify problems in the existing systems/procedures and their respective solutions
3. Review standards and procedure manual for new NSCs

# PEAS for the Newborn Screening Centers

## Components of Analysis

- Service Delivery (Specimen Collection, Testing Process, Screening Test Results, Monitoring of Timely and Universal Screening, Short-Term Follow-up, Follow-up Support Activities, Program Evaluation);
- Education and Regulation (Advocacy Plan, Prenatal Education, Policies, Marketing/Promotions);
- Human Resource;

# PEAS for the Newborn Screening Centers

## Components of Analysis

- Technical Standards (Laboratory Forms/Records, Laboratory Instrumentation, Laboratory Equipment, Supplies and Reagents, Working Environment, and Laboratory Safety);
- Administration and Financing (Program Administration and Financing, Plan of Action, Contingency Plan);

# PEAS for the Newborn Screening Centers

## Components of Analysis

- Information Management System (information System and Computer Information System);
- Linkages, and
- Facility Management (Physical Facility, Government Standards Compliance, Other Fixtures and Supplies)



## Newborn Screening Center Review



# Revision of Philippine PEAS

Utilizing these PEAS tools for five years resulted in significant program improvements. The revisions focused on the following:

- ▣ for the CHD and NSF PEAS, an upgrade on the tools to ensure that indicators included are relevant to present day needs of the program.
- ▣ for the NSC PEAS, streamlining of the screening processes, at the same time incorporating an administrative process assessment as part of the tool.

# Revised PEAS 2011

National Institutes of Health

## Philippine Performance Evaluation and Assessment Scheme PPEAS for Newborn Screening Centers\*

NSC Program Review 2011  
Newborn Screening Reference Center  
National Institutes of Health, UP Manila



\* Based on the PEAS (version 8/25/06) developed by Health Resources and Services Administration, Maternal and Child Health Bureau, Genetic Services Branch, and National Newborn Screening and Genetics Resource Center, Department of Pediatrics, The University of Texas Health Science Center at San Antonio.

**Version: 15 April 2011**

### COMPONENTS


1. **Service Delivery**
  - a. Specimen Collection
  - b. Testing Process
  - c. Screening Test Results
  - d. Monitoring of Timely and Universal Screening
  - e. Short-Term Follow-up
  - f. Follow-up Support Activities
  - g. Program Evaluation
2. **Education and Regulation**
  - a. Advocacy Plan
  - b. Prenatal Education
  - c. Parent Education (Long Term Follow-up)
  - d. Marketing/Promotions
3. **Human Resource**
4. **Technical Standards**
  - a. Laboratory Forms/Records
  - b. Laboratory Instrumentation
  - c. Laboratory Equipment
  - d. Supplies and Reagents
  - e. Working Environment
  - f. Laboratory Safety
5. **Administration and Financing**
  - a. Program Administration and Financing
  - b. Plan of Action
  - c. Contingency Plan
6. **Information Management System**
  - a. Information System
  - b. Computerized Information System
7. **Linkages**
8. **Facility Management**
  - a. Physical Facility
  - b. Government Standards Compliance
  - c. Other Fixtures and Supplies

# Revision of Philippine PEAS

A decorative horizontal bar with a dark green segment on the left and a light green segment on the right. The background features a faint, artistic illustration of green pea pods and leaves.

These second-generation PEAS tools are currently used and data are accumulated to show the extent of program improvements.

This program improvement technique has been successful in improving our developing program in the Philippines and this model of development and usage to meet local needs should prove useful in other developing programs.



Every newborn screening program  
MUST DEVELOP  
a **P**erformance **E**valuation & **A**ssessment **S**cheme  
(**PEAS**)!





**T**hank you very much!



**P**erformance  
**E**valuation and  
**A**ssessment  
**S**cheme



in the Philippines