

## Newborn Screening Goes On Call



Segment Host, Valerie Tan, puts on show the procedure of the blood specimen collection performed by Claire Alincastre.

Kapuso for a day!

The Center for Health Development–Metro Manila (CHD-MM) partnered with On Call (Serbisyong Totoo Ngayon), a public service program of GMA NewsTV.

Fifty babies of indigent families in Mandaluyong City received free newborn screening courtesy of the CHD-MM on February 27, 2012, at the CHD-MM Conference Room.

The public service gave those who cannot afford the newborn screening fee an opportunity to avail of screening tests for five metabolic disorders. For its part, On Call featured the event on its program 1:00 p.m. of the same day, fostering public awareness for the newborn screening.

During the program, Hermes Pascua, CHD-MM Newborn Screening Nurse Coordinator, explained newborn screening and its importance, while segment host Valerie Tan interviewed some mothers about how they felt about their babies receiving the newborn screening tests.

On Call also featured the actual blood sample collection administered by Mariz Ebuena and Claire Alincastre, both Newborn Screening Nurse Coordinators of CHD-MM.

This is actually the second time CHD-MM and GMA NewsTV conducted the activity. On September 1, 2011, some 30 babies born at the Gat Andres Bonifacio Memorial Medical Center received free newborn screening. Hosts Connie Sison and Ivan Mayrina covered the event. *C Alincastre*

## CHD-Bicol Strategy for 2012: Provision of NBS Kits to Indigents

The Center for Health and Development–Region 5 had identified its priorities for 2012: to ensure that the underprivileged exercise their right to health.

To realize the strategy, CHD-5 purchased 5,800 newborn screening (NBS) kits and allotted those for the indigent patients of three Department of Health (DOH) Retained Hospitals and four local government unit (LGU) hospitals. Table 1 below presents how the NBS kits were distributed.

Province	Newborn Screening Facility	Type	Quantity
Albay	Bicol Regional Teaching & Training Hospital	DOH Retained	1,500
Camarines Norte	Camarines Norte Provincial Hospital	LGU	500
Camarines Sur	Bicol Medical Center	DOH Retained	1,500
	Bicol Sanitarium	DOH Retained	100
Catanduanes	Eastern Bicol Medical Center	LGU	700
Masbate	Masbate Provincial Hospital	LGU	500
Sorsogon	Dr. Fernando B. Duran Memorial Hospital	LGU	1,000
<b>TOTAL</b>			<b>5,800</b>

Table 1. Distribution of NBS Kits to Region 5 Hospitals in 2012

In 2011, CHD-5 allocated NBS kits to government health facilities (DOH retained, provincial and district hospitals, and RHUs) to help increase the coverage and ensure the availability of the NBS services. They were able to provide 2,621 NBS kits to 85 health facilities from the six provinces. Table 2 below shows the breakdown.

Province	No. of NSF	Quantity of NBS Kits
Albay	21	1,041
Camarines Norte	4	125
Camarines Sur	14	510
Catanduanes	11	265
Masbate	14	260
Sorsogon	21	420
<b>TOTAL</b>	<b>85</b>	<b>2,621</b>

Table 2. Distribution of NBS Kits to Region 5 Hospitals in 2011

CHD-5 used the Multi-Stakeholder Approach, which entails partnership and collaboration between the CHD, LGUs, NGOs, and the communities. Moreover, the devolution of health services to the LGU in accordance to the Local Government Code does not hinder the advocacy and provision of the NBS. *J Terrado*

## Photo Story

1. January 22, 2012—Dinagyang Festival is one of the most popular and celebrated festivals in the country. This is why the Newborn Screening Center–Visayas joined in the festivities to promote the Newborn Screening Program. With thousands of people crowding the streets, the advocacy was a success in bringing awareness to the public about newborn screening and other health information. Truly, the Dinagyang Festival is a venue for fun and learning; that's why it was inducted in the Hall of Fame of the Association of Tourism Officers of the Philippines as the Best Tourism Event.



2. January 31–February 2, 2012—To increase membership and jumpstart the newborn screening services in rural health facilities, the Center for Health Development–Region 6 and the Provincial Health Office of Aklan held the Training of Trainers on Newborn Screening at Sampaguita Gardens, New Washington, Aklan. The event highlighted a lecture and an actual health prick practicum.

3. January 26, 2012—In the spirit of idea exchange and best practices sharing, the Newborn Screening Team in the Visayas convened to evaluate the status of the program in each region, formulate new strategies, and review plans for 2012. Regional Newborn Screening Coordinators and Newborn Screening Staff were represented by Dr. Renilyn Reyes and Maria Lizandra Sante, Region 6; Dr. Nayda Bautista and Myra Leonora Salvaleon, Region 7; Dr. Lilibeth Andrade and Marvin Allen Guyjoco, Region 8; and Dominic Buensalido, Maria Leah Borro, and Dr. J Edgar Winston Posecion, Newborn Screening Center–Visayas.

4. February 2012—Newborn Screening Center-Visayas celebrates this month its sixth year! The Center has screened more than half a million babies since it started operating in February 2006 and has since been committed to provide quality newborn screening services. Residents are assured of reliable and efficient diagnostic tests, comprehensive case management and patient follow-up programs, and people-oriented services from the NSC-Visayas. The Center also gives out free NBS tests, discounted G6PD confirmatory tests, and surprise gifts to walk-in clients.

5. February 8, 2012 - To create a stronger bond among parents of saved babies, the Department of Health–Center for Health Development–Region 7 organized a parents forum on February 8, 2012 in Cebu City. The forum made way for the election of officers of the parents' support group and a chance for participants to share experiences with fellow parents. The support group was tasked to establish positive coping behaviors among parents and form a team that will coordinate with the newborn screening team and other agencies in the management and care of their children.

6. February 29, 2012—Rural health unit and provincial hospital staff marched to Bacold City for a consultative meeting for newborn screening on February 29, 2012. Organized by the Provincial Health Office of Negros Occidental, the said event aimed to address concerns in patient data and sample collection, data reporting, case management, and other program implementation issues. As a result of the meeting, participants committed to a mission to reach out to distant communities and that facilities should promote and increase facility-based deliveries to widen the NBS coverage. *D Buensalido*

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## DOH-CHD 12 Reviews NBS Implementation

To ultimately increase newborn screening (NBS) coverage in the region, the Center for Health Development (CHD)–Region 12 conducted its Program Implementation Review (PIR) on January 24–25, 2012, at T'boli Hotel, General Santos City.

The PIR aimed to assess, review, and strengthen the program implementation of each of the cities and provinces in Region 12.

The event kicked off with presentations of the accomplishments and best practices from North Cotabato, South Cotabato, Sarangani, and Sultan Kudarat. Dr. Conchita Abarquez, Unit Head of NSC-Mindanao, presented updates on the status and performance of each province in the region, while Ms. Lucio Decio, Regional NBS Coordinator of CHD-Region 12 for NBS, presented strategies and actions to help increase NBS coverage.

Dr. Edson Pama of PhilHealth Region 12 answered questions on PhilHealth, and Ms. Lita Orbillo from the National Center for Disease Prevention and Control, DOH-Manila, provided the regional performance vis-à-vis the nationwide coverage and reported updates and current developments on the NBS program.

The PIR also commended exemplary and outstanding NBS facilities. The awardees were Well-Family Midwife Clinic-Enriquez (General Santos City), Antipas Medical Specialists Hospital, Inc.



The organizers of the Program Implementation Review conducted in General Santos City on January 23-25, 2012

(Antipas), Mlang Doctors Hospital, Inc. (Mlang), The Doctors Clinic and Hospital, Inc. (Koronadal City), Lake Sebu Municipal Hospital (Lake Sebu), Polomolok Municipal Hospital (Polomolok), ZMK Doctors Clinic and Hospital (Tacurong City), Sandig Medical Clinic and Hospital (Tacurong City), Mindanao Medical Center (General Santos City), and Kidapawan Medical Specialists Center, Inc. (Kidapawan City).

Free NBS kits were also given to RHU Bagumbayan of Sultan Kudarat and the Cotabato Regional and Medical Center in Cotabato City to widen the NBS coverage.

The participating newborn screening facilities (NSFs) also came up with plans highlighting strategies and actions to improve the NBS programs with the end goal of increasing the number of babies screened in their respective facilities.

At present, there are 160 NSFs in the region that support the implementation of NBS. *MA Dimacisil*

## MCHI's Extended Newborn Screening Program

To ensure good health and life ahead of babies fresh from their mother's womb, the newborn screening (NBS) program helps detect in infants heritable conditions that could result to mental retardation and serious health complications.

With this goal in mind, the Mercy Community Hospital Inc. (MCHI) of Iligan City, Lanao del Norte, started to implement its Newborn Screening Program by conducting newborn screening orientation and awareness campaigns among its departments and wards.

Soon, however, MCHI found out that sustaining the newborn screening program was not a stroll in the park and that financial constraint prevents marginalized pregnant women from availing the program, thus hindering the success of NBS.

Far from being discouraged, MCHI initiated an advocacy to include in the program the poorest of the poor of non-PhilHealth members in nearby communities. This was in response to the records showing that 20–30% of 1440 live births in March 2000 did not undergo newborn screening because of financial difficulties.

The MCHI, headed by the newborn screening team, initiated the project "Handog Pamasko sa Bagong Paslit" on December 16, 2010, to raise funds to cover the NBS test of babies whose parents were indigent and non-PhilHealth members.

With pouring support for the advocacy, the MCHI intensified the program and renamed it "Piso sa Newborn Screening." In the new program, each department of the MCHI put up coin banks where donations from hospital staff, employees, and guests can drop their contributions. MCHI friends here and abroad also expressed support to the campaign.

The fund totaled P 83,655 and averaged P 11,950 per month during the campaign, enough to screen about 19 to 20 newborn babies every month. The first infant received free NBS on July 13, 2011.

Besides the fund-raising project, the 34th Mercy Day Celebration also provided free NBS tests. This is in addition to the event's highlight, MCHI's first Fun Run, whose proceeds went to the newborn screening campaign.

Due to the overwhelming success of the projects, MCHI hopes that its efforts will be replicated nationwide. *MCHI*

## Enhancing Skills of Health Personnel in Marawi City



The photos show the newborn screening training organized and conducted by the Newborn Screening Center-Mindanao and Integrated Provincial Health Office-Lanao del Sur on February 9, 2012 in Marawi City.

To address the problem of unsatisfactory samples collection from newborn screening facilities (NSFs), the Newborn Screening Center–Mindanao (NSC-M), in coordination with the Integrated Provincial Health Office (IPHO) in Lanao Del Sur, conducted the Newborn Screening Orientation/Training on February 9, 2012, in Marawi City.

The poor collection was believed to be attributed to the majority of the NSFs in the Autonomous Region in Muslim Mindanao (ARMM) having new staff who have no prior orientation and training in proper collection and handling of newborn screening samples.

The event also aimed to strengthen the NBS program advocacy and invite midwives from different rural health units (RHUs) in Lanao del Sur who run birthing facilities not yet enrolled as NSFs.

To jumpstart newborn screening, NSC-Mindanao gave free NBS kits to the RHUs so the public, especially the Bangsamoro people, will have access to the NBS program.

Parents from the community and nursing students and clinical instructors from Mapandi Memorial College attended the orientation, showing strong support from both the community and the academe. *A. Matuan*

## 2011 STATISTICS

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At the end of 2011, there are 3642 facilities offering newborn screening throughout the country. Of the 3642 facilities, 2095 are private while 1546 are government facilities which include DOH retained, Rural Health Units, Lying-ins, LGU and other special government facilities. The Republic of Palau is also sending an average of 20 newborn screening samples to the Philippines for testing. Figure 1 illustrates the distribution of health facilities by category.

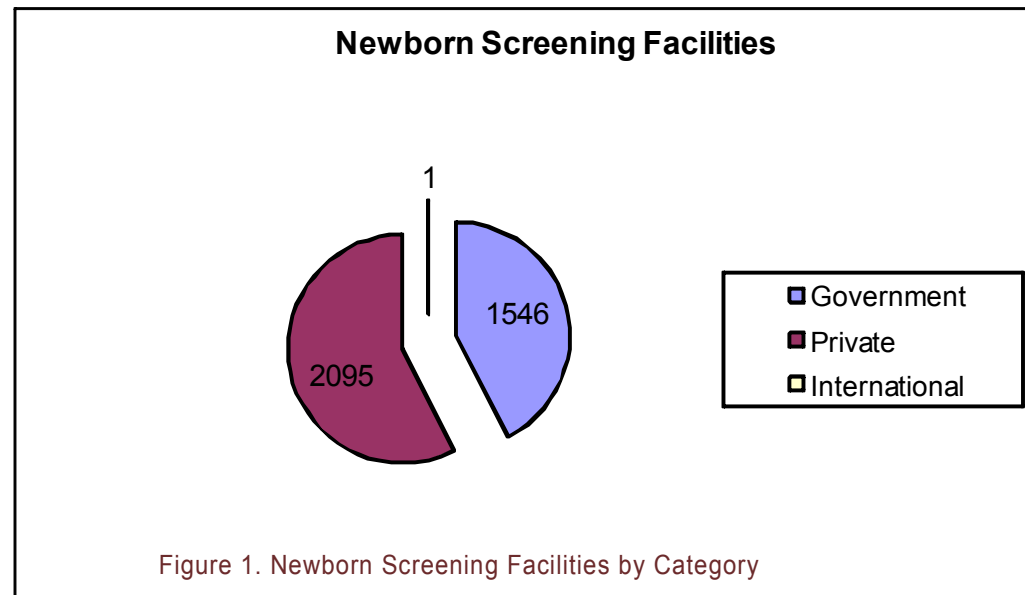


Figure 1. Newborn Screening Facilities by Category

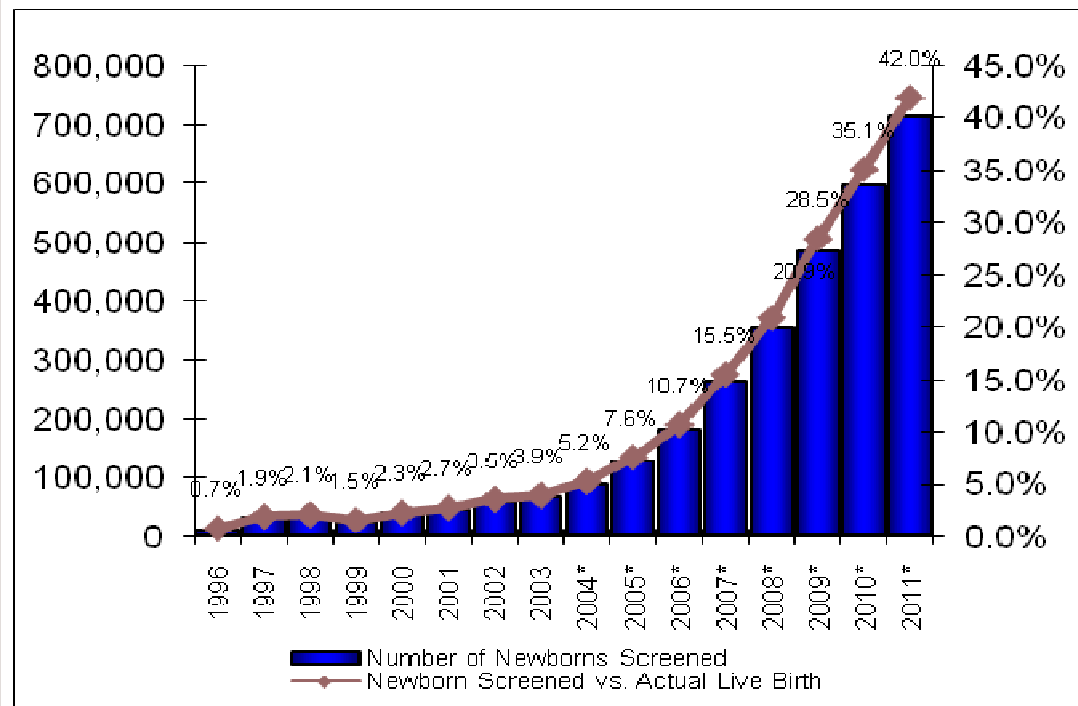


Figure 2. Annual Number of Newborns Screened

Conditions	Number of Cases	Prevalence
Congenital Adrenal Hyperplasia	293	1: 10 604
Congenital Hypothyroidism	1034	1: 3 004
Galactosemia (Classical and Non Classical)	34	1: 91 380
Galactosemia, Variant Form	101	1: 30 762
Phenylketonuria	17	1:182 761
Hyperphenylalanemia	16	1: 194 183
Glucose-6-Phosphate Dehydrogenase Deficiency	60204	1: 50

Table 1. Prevalence Rate as of December 2011

From 35.1% in 2010, the national newborn screening coverage for 2011 increased to 42% using the population based of 1.7 M. This increase was a result of several strategies employed by major stakeholders to improve the program including the PhilHealth updated financing scheme for newborn screening and the integration of newborn screening with the Department of Health's existing child health programs. Figure 2 illustrates the increase in the annual number of newborns screened from 1996 to 2011.

## Third Workshop on Consolidating Newborn Screening Efforts in the Asia Pacific Region



(Standing L-R) Dr. Ketmaly Phansouk, Dr. Carmencita Padilla, Dr. Lianshu Han (Seated L-R) Dr. Dinesh Dharel, Dr. Philavanh Kadsatha, Dr. Fausta Moslem, Dr. Marie Josephine De Luna, Dr. Xuefan Gu, and Dr. Manjula Hettiarachchi



(Standing L-R) Dr. Juanita Basilio, Dr. Carmencita Padilla, Dr. Geralma Nasal, Ms. Ely Rosilawati (Seated L-R) Dr. Le Phuong Thao, Dr. Nguyen Thi Hoa, Dr. Dimayanthi Nanayakkara, Dr. Vicente Belizario and Dr. Tariq Zafar



UP Manila Chancellor and Mrs. Arlene Agulto shake hands with Dr. Juanita Basilio, Chief of Child Division of the Department of Health.



Dr. Padilla shares with other delegates the humble beginnings of the newborn screening program in the Philippines; Dr. Kok-Yiong Liam of Perkin Elmer, assures the delegates the commitment of their company in providing support to the programs in the Asia Pacific Region.



(Standing L-R) Dr. Sumberzul Nyamjav, Dr. Kok-Yiong Liam, Dr. Bradford Therrell, Dr. Carmencita Padilla, Ms. Arlene Emmanuelle Agulto (Seated L-R) Chancellor Manuel Agulto, Dr. Diet Sadih Rustama, Dr. David Millington, and Mrs. Arlene Agulto



Chancellor Manuel Agulto and Dr. Gerelma Nasal exchange warm greetings February 26 at the Shangri-La Hotel, EDSA.

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## Newborn Screening Gets New Tool



Dr. Bradford Therrell (3rd from left) and Dr. David Millington (4th from left) received Certificate of Appreciation awarded by Dr. J. Edgar Winston Posecion (leftmost), Dr. Carmencita Padilla, Dr. Eva Marie Cutiongco-dela Paz, Ms. Ma. Elouisa Reyes, Dr. Florencio Dizon, and Mr. Venchie Badong.

The review of four-year data of Filipino newborns screened at the California Newborn Screening Program revealed 147 cases of endocrinologic and metabolic conditions as well as hemoglobinopathies, prompting the formal recommendation of an expanded NBS program in the Philippines to the Advisory Committee on Newborn Screening.

At the core of the expansion, the upgraded NBS will screen for more than 20 core disorders using Tandem Mass Spectrometry (TMS), which is found to be a more rapid, multi-component technique in screening a wide range of inborn errors of metabolism.

In preparation for its implementation, the Newborn Screening Reference Center (NSRC) and Institute of Human Genetics (IHG) sponsored a workshop on TMS on February 28-29, 2012, at the Crowne Plaza Hotel, Mandaluyong City. The workshop aimed to educate and enlighten NBS program staff in the country on expanded NBS using TMS.

Dr. Bradford Therrell (Department of Pediatrics Professor, University of Texas Health Science Center and Director of US National Newborn Screening and Genetics Resource Center) and Dr. David S. Millington (Professor of Pediatrics and Director of Biochemical Genetics Lab Pediatrics Medical Genetics Division, Duke University Medical Center, North Carolina) were the workshop speakers, while the directors, newborn screening center unit heads, laboratory managers, head of follow-up teams, team captains, and neonatologists (a representative per region) participated in the event. Also, the Biochemical Genetics Team of the IHG and the NSRC staff were present in the workshop. *MT Escoreal*

## Baby's Day Out

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It's a day for babies!

The Newborn Screening Center (NSC)-Visayas, in partnership with the NG Review Center, conducted free seminars called "Baby's Day Out" on February 8 and 15 in Iloilo City and Bacolod City, respectively.



Participants to the lecture-seminars organized by NSC-Visayas and NG Review Center on February 8 and 15, 2012 in Iloilo and Bacolod

The lecture-seminars focused on the nature and clinical significance of the Newborn Screening (NBS) Program and were participated by students and instructors from different nursing schools in the two cities.

Maria Leah Borro and Dominic J. Buensalido of NSC-Visayas gave the lectures.

Baby's Day Out was conducted in compliance to Section 14-D of the Implementing Rules and Regulations of the Newborn Screening Act of 2004, which highlights the roles of the academe, health professional societies and national health organizations in the NBS.

Due to the success of the event, the NSC-Visayas and its partners have planned similar activities in the future for different stakeholders to bring the right health information to the community. *D. Buensalido*

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## Third Workshop on Consolidating Newborn Screening Efforts in the Asia Pacific Region



Newborn Screening Program Managers in Asia Pacific countries, experts from the United States, and UP Manila Officials sit down to discuss strategies on improving their respective programs. (Seated L-R) Dr. Juanita Basilio, Medical Officer from the DOH-Philippines; Dr. Gerelma Nasal of Mongolia; Dr. Vicente Belizario, Director of NIHP; Dr. Fausta Moslem of Bangladesh; Dr. Diet Sadih Rustama of Indonesia; Dr. Bradford Therrell, NNSGRC Director; Dr. Carmencita Padilla, NSRC Director; Dr. Manuel Agulto, UP Manila Chancellor; Mrs. Arlene Agulto, wife of the Chancellor; Dr. Dimayanthi Nanayakkara of Sri Lanka; Dr. David Millington of the US; Dr. Marie Josephine De Luna, Vice-Chancellor for Academic Affairs of UP Manila; Dr. Ketmaly Phansouk and Dr. Philavanh Kadsatha of Laos. (Standing from left) Dr. Kok-Yiong Lam, Sales Manager of PerkinElmer; Ms. Lita Orbillo, NBS National Coordinator of the Philippines; Ms. Ely Rosilawati and Dr. Pham Nghiem Minh of Zentech-Vietnam; Dr. Le Phuong Thao and Dr. Nguyen Thi Hoa of Vietnam; Dr. Sumberzul Nyamjav of Mongolia; Dr. Manjula Hettiarachchi of Sri Lanka; Dr. Phung Nhu Toan of Vietnam; Dr. Xuefan Gu of China; Dr. Dinesh Dharel of Nepal; Dr. Lianshu Han from China; Mr. Didier Verlinden and Mr. Benoit Ligot of Zentech; and Dr. Tariq Zafar of Pakistan.

The University of the Philippines Manila through the Newborn Screening Reference Center-National Institutes of Health hosted the Third Workshop on Consolidating Newborn Screening Efforts in the Asia Pacific Region on February 25-27, 2012, at the Holiday Inn Manila Galleria, Quezon City.

Twenty-one participants from eleven countries—Bangladesh, Cambodia, China, Indonesia, Laos, Mongolia, Nepal, Pakistan, Philippines, Sri Lanka, and Vietnam—represented the Asia Pacific region, while two newborn screening experts from the US also took part. The group discussed issues on three major topics—Program, Policy, and Laboratory—to maximize service collaborations and develop a regional collaborative research group.

The workshop is the third to facilitate the formation of the Asia Pacific Newborn Screening Collaborative. The First Workshop on Consolidating Newborn Screening Efforts in the Asia Pacific Region was held from March 30 to April 1, 2008, in Cebu City, while the second workshop took place on June 4-5, 2010, in Manila.

The workshops served as venue for the participating countries to assess their respective advances in newborn screening and discuss problems encountered during implementation. The participants also tackled strategies used by the newborn screening program managers and shared best practices with member countries. Some findings presented in the workshops revealed that there were more developing than developed programs within the Asia Pacific region and that the status of screening activities in a few countries still remains unclear.

Newborn screening activities in the region are particularly given emphasis since births here account for approximately half of the newborn population in the world. Of these, about 85% are born in countries which have no organized newborn screening yet. *V. Mendoza*