

Asia Pacific Newborn Screening Market By Product (Instruments, Reagents), By Technology (Tandem Mass Spectrometry, Pulse Oximetry, Enzyme Based Assay, DNA Assay and Others), By Test Type (Dry Blood Spot Test, CCHD, Hearing Screen), By Country, Competition, Forecast and Opportunities, 2019-2029F

https://marketpublishers.com/r/A8C021D7EFF8EN.html

Date: August 2024

Pages: 133

Price: US\$ 4,400.00 (Single User License)

ID: A8C021D7EFF8EN

Abstracts

Asia Pacific Newborn Screening Market was valued at USD 523.61 Million in 2023 and is anticipated to project impressive growth in the forecast period with a CAGR of 8.01% through 2029. Asia Pacific Newborn Screening Market is driven by several key factors. Increasing awareness among healthcare providers and parents about the importance of early disease detection in newborns has significantly boosted demand. Governments and healthcare organizations are also implementing screening programs to detect metabolic, genetic, and congenital disorders early, which further fuels market growth. Advancements in technology and healthcare infrastructure in countries across Asia Pacific have improved the accessibility and accuracy of screening tests. These technological advancements include the development of automated screening platforms and the introduction of multiplex testing for detecting multiple disorders simultaneously. Rising healthcare expenditure and investments in healthcare facilities are supporting the expansion of newborn screening programs in the region. Overall, these factors contribute to the rapid growth of the Asia Pacific Newborn Screening Market.

Key Market Drivers

Increasing Birth Rate

The growing population and birth rate in Asia Pacific countries significantly impact the



demand for newborn screening services, amplifying the necessity for early detection and intervention in newborns facing various disorders. As population numbers rise across the region, so too does the number of infants born each year. This demographic trend directly correlates with an increased likelihood of newborns being affected by congenital disorders, genetic conditions, and metabolic abnormalities. Newborn screening plays a crucial role in identifying these conditions early in a baby's life, often before symptoms manifest. Timely detection enables healthcare providers to initiate prompt interventions, such as dietary modifications, medications, or specialized treatments, which can significantly improve health outcomes and quality of life for affected infants.

As healthcare infrastructure continues to expand in many Asia Pacific countries, more families gain access to healthcare services, including newborn screening programs. Governments and healthcare organizations increasingly recognize the cost-effectiveness of preventive healthcare strategies, such as newborn screening, which can mitigate long-term healthcare costs associated with untreated or late-detected conditions. The demand for newborn screening services is also bolstered by advancements in medical technology, which have enhanced the accuracy and scope of screening tests available. Technologies like tandem mass spectrometry (TMS), next-generation sequencing (NGS), and molecular diagnostics have improved the ability to detect a wider range of disorders with greater precision, further driving the expansion of newborn screening programs across the region.

Technological Advancements

Advances in screening technologies such as tandem mass spectrometry (TMS), next-generation sequencing (NGS), and molecular diagnostics have revolutionized newborn screening practices, significantly enhancing the accuracy, efficiency, and scope of tests offered. These technological advancements are pivotal in driving the expansion of the newborn screening market across the Asia Pacific region and globally. Next-generation sequencing (NGS) technologies have significantly broadened the scope of newborn screening beyond traditional metabolic disorders. NGS allows for the rapid sequencing of an infant's genome, facilitating the identification of genetic mutations associated with a wide range of disorders. These may include cystic fibrosis, Duchenne muscular dystrophy, and various inherited metabolic disorders. By providing comprehensive genetic information, NGS enables early detection and intervention, potentially improving long-term health outcomes for affected infants.

Molecular diagnostics encompass a range of techniques that analyze genetic material



(DNA or RNA) to detect specific sequences associated with diseases. These techniques have advanced newborn screening by enhancing the specificity and accuracy of tests for conditions such as congenital infections, genetic syndromes, and hemoglobinopathies. Molecular diagnostics are particularly valuable in identifying conditions that may not be detectable through traditional biochemical screening methods alone. Collectively, these technological advancements in newborn screening not only improve diagnostic accuracy and efficiency but also expand the range of conditions that can be detected early in infancy. This capability is crucial for initiating timely interventions and treatments, ultimately contributing to better health outcomes and quality of life for newborns across the Asia Pacific region and beyond.

Rising Awareness and Education

Increasing awareness among parents, healthcare providers, and policymakers about the benefits of early screening for conditions such as metabolic disorders, genetic diseases, and hearing impairment plays a critical role in encouraging higher adoption rates of newborn screening programs across the Asia Pacific region. For parents, heightened awareness translates into a better understanding of the importance of newborn screening in identifying potential health issues early in their child's life. Early detection allows for prompt intervention and treatment, which can significantly improve health outcomes and quality of life for affected infants. Parents are increasingly proactive in seeking out screening services, driven by the desire to ensure their child's well-being from the very beginning. As of January 2024, newborn screening for SCID, BCD, and SMA has been implemented in 40 out of 47 prefectures in Japan, but it has not yet been universally extended to cover all newborns nationwide.

Healthcare providers benefit from increased awareness as well. They are better equipped to educate parents about the necessity and benefits of newborn screening during prenatal care and postnatal consultations. By emphasizing the preventive and diagnostic advantages of early screening, healthcare providers empower parents to make informed decisions about their child's healthcare needs. Policymakers also play a crucial role in promoting awareness and advocating for the expansion of newborn screening programs. Recognizing the public health benefits and cost-effectiveness of early detection, policymakers may implement policies that support comprehensive screening initiatives. This can include funding support, regulatory frameworks, and guidelines that encourage healthcare facilities to integrate screening protocols into standard newborn care practices.

Focus on Preventive Healthcare



The shift in healthcare priorities towards preventive care and early diagnosis is increasingly recognized as a cornerstone of effective healthcare management, particularly in the Asia Pacific region. This strategic pivot is driven by the understanding that proactive measures, such as newborn screening, not only improve patient outcomes but also mitigate long-term healthcare costs. Emphasizing preventive care means healthcare systems are focusing more on identifying health risks and potential conditions before they escalate into more severe and costly health issues. Newborn screening exemplifies this approach by offering early detection of various congenital disorders, genetic diseases, and metabolic abnormalities that may not manifest symptoms immediately but can have significant long-term implications if left untreated.

By detecting these conditions early, healthcare providers can initiate timely interventions, such as dietary modifications, medications, or specialized treatments, which can effectively manage or even mitigate the progression of diseases. This proactive management not only improves the quality of life for affected infants and their families but also reduces the need for more intensive and costly treatments that may be required if conditions are diagnosed later. From a healthcare economics perspective, investing in newborn screening programs is seen as a cost-effective strategy. The initial investment in screening infrastructure and technologies is outweighed by the potential savings from preventing complications, hospitalizations, and long-term healthcare expenditures associated with untreated or late-diagnosed conditions.

Key Market Challenges

Cost and Affordability Issues

The cost of implementing and sustaining newborn screening programs presents a significant barrier for healthcare systems across many Asia Pacific countries. This financial challenge encompasses various elements such as acquiring and maintaining specialized equipment, purchasing necessary reagents and consumables, and investing in ongoing personnel training. These factors collectively contribute to the affordability concerns that hinder the widespread adoption of comprehensive screening protocols in the region.

Equipment costs constitute a substantial portion of the financial burden associated with newborn screening programs. Advanced technologies such as tandem mass spectrometry (TMS) and next-generation sequencing (NGS) equipment are necessary for conducting accurate and timely screenings. The initial capital investment required for



acquiring these instruments, along with the ongoing costs of maintenance and calibration, can strain limited healthcare budgets.

The expenses related to reagents and consumables are ongoing and essential for conducting screening tests routinely. These costs include the purchase of test kits, chemical reagents, and disposable supplies needed for each screening procedure. The volume and frequency of screenings further escalate these expenses, especially in densely populated regions where birth rates are high.

Awareness and Education Gaps

Despite ongoing efforts to raise awareness, a persistent need exists for targeted education campaigns aimed at healthcare providers, parents, and policymakers regarding the critical importance of newborn screening. This educational deficit contributes to low uptake rates and missed opportunities for early intervention, particularly in the Asia Pacific region.

Healthcare providers are instrumental in the dissemination of information about newborn screening to parents and caregivers. However, not all healthcare professionals may be fully informed about the range of available screening tests, their benefits, and the optimal timing for conducting them. Targeted education campaigns can help bridge these knowledge gaps by providing healthcare providers with comprehensive training on the importance of early detection and the specific conditions that newborn screening can identify.

Parents, as primary decision-makers for their children's healthcare, also require detailed information to make informed choices about newborn screening. Many parents may not be aware of the potential health risks that screening can detect or the benefits of early intervention. Educational initiatives can empower parents by explaining the screening process, the conditions screened for (such as metabolic disorders, genetic diseases, and hearing impairments), and the impact that early diagnosis can have on their child's health outcomes and quality of life.

Key Market Trends

Expanding Healthcare Infrastructure

Investments in healthcare infrastructure, such as hospitals, clinics, and diagnostic centers, across Asia Pacific countries are instrumental in bolstering the expansion and



effectiveness of newborn screening services. These investments signify a commitment to improving healthcare delivery systems, ensuring that essential services like newborn screening are more widely accessible and capable of meeting the growing healthcare demands of the region.

The construction and enhancement of hospitals, clinics, and diagnostic centers serve as foundational components of healthcare infrastructure development. These facilities not only provide critical care during childbirth and early infancy but also serve as hubs for conducting essential health screenings, including newborn screening. By establishing or upgrading these healthcare facilities, countries in the Asia Pacific region can expand their capacity to deliver timely and comprehensive newborn screening services.

Investments in healthcare infrastructure facilitate the deployment of advanced medical technologies and equipment needed for newborn screening. Modern diagnostic tools such as tandem mass spectrometry (TMS), next-generation sequencing (NGS), and molecular diagnostics require specialized facilities and skilled personnel to operate effectively. Upgraded infrastructure supports the installation and maintenance of these technologies, enabling healthcare providers to conduct accurate and timely screenings for a wide range of genetic, metabolic, and congenital disorders.

Rising Incidence of Genetic Disorders

The increasing prevalence of genetic disorders and congenital diseases among newborns in the Asia Pacific region underscores the urgent need for comprehensive newborn screening programs. This demographic trend is driving significant demand for screening services aimed at early diagnosis and timely intervention, thereby enhancing health outcomes for infants and families alike. Genetic disorders and congenital diseases encompass a broad spectrum of conditions that can affect infants from birth or shortly thereafter. These conditions may include metabolic disorders such as phenylketonuria (PKU) and maple syrup urine disease (MSUD), genetic syndromes like cystic fibrosis and Down syndrome, as well as congenital heart defects and hearing impairments. Early detection of these conditions through newborn screening is crucial because it allows healthcare providers to initiate prompt interventions that can mitigate potential complications and improve long-term health outcomes. According to the World Health Organization (WHO), each year, approximately 3.2 million children worldwide are born with congenital abnormalities, and around 300,000 newborns with birth defects do not survive beyond the first 28 days of life. Given its large population, China experiences a significant burden of birth defects, with an estimated prevalence rate of about 5.6%. It is estimated that between 800,000 to 1,200,000 children are born



annually with congenital malformations, including over 2,500,000 cases of visible birth defects.

Comprehensive newborn screening programs are designed to identify these conditions early, often before symptoms manifest, using advanced diagnostic technologies such as tandem mass spectrometry (TMS), next-generation sequencing (NGS), and molecular diagnostics. These technologies enable healthcare providers to screen for a wide range of disorders with high sensitivity and specificity, ensuring accurate results and timely clinical decisions.

Segmental Insights

Product Insights

Based on the product, reagents occupy a dominant position due to several critical factors that underscore their essential role in facilitating accurate and effective screening processes for newborns across the region. Reagents are fundamental components in the biochemical assays and diagnostic tests conducted during newborn screening. These chemical substances and materials are specifically formulated to interact with biological samples, enabling the detection of various metabolic disorders, genetic diseases, and congenital conditions. Reagents are tailored to ensure precise measurements of biomarkers and analytes indicative of specific health conditions, such as phenylketonuria (PKU), cystic fibrosis, and congenital hypothyroidism. Their role in maintaining the reliability and accuracy of screening results is indispensable, making them essential in everyday clinical practice within newborn screening laboratories.

The Asia Pacific region encompasses a diverse population with varying genetic backgrounds and healthcare needs. Reagents are versatile tools that can be adapted to accommodate different screening protocols and testing methodologies, catering to the specific healthcare requirements of diverse populations across countries like China, India, Japan, and Australia. The flexibility of reagents allows healthcare providers to customize screening panels based on regional epidemiological data and prevalent genetic conditions, thereby enhancing the relevance and efficacy of newborn screening programs.

Technology Insights

Based on the Technology, Tandem Mass Spectrometry (TMS) emerges as a dominant force in the Asia Pacific region due to its versatility, accuracy, and ability to screen for a



wide range of metabolic disorders and genetic conditions. Tandem Mass Spectrometry (TMS) is celebrated for its capability to simultaneously analyze multiple analytes from a single dried blood spot or other biological samples. This technology enables healthcare providers to screen newborns for a diverse spectrum of conditions including but not limited to phenylketonuria (PKU), maple syrup urine disease (MSUD), and fatty acid oxidation disorders. The ability to detect these disorders early in life is crucial as it allows for prompt intervention and management, significantly improving health outcomes for affected infants. This versatility makes TMS a preferred choice in many newborn screening programs across the Asia Pacific region, where the prevalence of such disorders necessitates robust and comprehensive screening methodologies.

Country Insights

Japan stand out as a dominated player in the Asia Pacific newborn screening market. The country has established a robust healthcare infrastructure that includes extensive newborn screening programs aimed at early detection and intervention for various genetic and metabolic disorders. Japan's leadership in this sector can be attributed to several key factors. The country has made significant investments in healthcare research and technology, fostering advancements in screening methods and diagnostic tools. These efforts have resulted in highly efficient screening processes that cover a wide range of conditions, ensuring comprehensive healthcare for newborns.

Japan's healthcare system emphasizes preventive medicine, with newborn screening playing a crucial role in identifying conditions that, if left undetected, could lead to severe health complications later in life. This proactive approach not only improves individual health outcomes but also reduces long-term healthcare costs by addressing potential issues early. Japan's regulatory framework supports the implementation and expansion of newborn screening programs nationwide. The government has instituted guidelines that ensure consistent quality and standards across screening procedures, fostering confidence among healthcare providers and parents alike. Japan benefits from a strong network of healthcare professionals who are trained in newborn screening protocols and equipped with the latest diagnostic technologies. This expertise enables swift and accurate diagnosis, facilitating timely interventions and treatment plans when necessary.

Key Market Players

Agilent Technologies Co. Ltd







DNA Assay	
Others	
Asia Pacific Newborn Screening Market, By Test Type:	
Dry Blood Spot Test	
CCHD	
Hearing Screen	
Asia Pacific Newborn Screening Market, By Country:	
China	
Japan	
India	
South Korea	
Australia	
Indonesia	
Singapore	
Vietnam	
Malaysia	
Thailand	

Competitive Landscape

Company Profiles: Detailed analysis of the major companies present in the Asia Pacific Newborn Screening Market.



Available Customizations:

Asia Pacific Newborn Screening market report with the given market data, TechSci Research offers customizations according to a company's specific needs. The following customization options are available for the report:

Company Information

Detailed analysis and profiling of additional market players (up to five).



Contents

1. PRODUCT OVERVIEW

- 1.1. Market Definition
- 1.2. Scope of the Market
 - 1.2.1. Markets Covered
 - 1.2.2. Years Considered for Study
 - 1.2.3. Key Market Segmentations

2. RESEARCH METHODOLOGY

- 2.1. Objective of the Study
- 2.2. Baseline Methodology
- 2.3. Key Industry Partners
- 2.4. Major Association and Secondary Sources
- 2.5. Forecasting Methodology
- 2.6. Data Triangulation & Validations
- 2.7. Assumptions and Limitations

3. EXECUTIVE SUMMARY

- 3.1. Overview of the Market
- 3.2. Overview of Key Market Segmentations
- 3.3. Overview of Key Market Players
- 3.4. Overview of Key Regions/Countries
- 3.5. Overview of Market Drivers, Challenges, Trends

4. VOICE OF CUSTOMER

5. ASIA PACIFIC NEWBORN SCREENING MARKET OUTLOOK

- 5.1. Market Size & Forecast
 - 5.1.1. By Value
- 5.2. Market Share & Forecast
 - 5.2.1. By Product (Instruments, Reagents)
 - 5.2.2. By Technology (Tandem Mass Spectrometry, Pulse Oximetry, Enzyme Based
- Assay, DNA Assay and Others)
 - 5.2.3. By Test Type (Dry Blood Spot Test, CCHD, Hearing Screen)



- 5.2.4. By Country
- 5.2.5. By Company (2023)
- 5.3. Market Map

6. CHINA NEWBORN SCREENING MARKET OUTLOOK

- 6.1. Market Size & Forecast
 - 6.1.1. By Value
- 6.2. Market Share & Forecast
 - 6.2.1. By Product (Instruments, Reagents)
- 6.2.2. By Technology (Tandem Mass Spectrometry, Pulse Oximetry, Enzyme Based Assay, DNA Assay and Others)
 - 6.2.3. By Test Type (Dry Blood Spot Test, CCHD, Hearing Screen)

7. INDIA NEWBORN SCREENING MARKET OUTLOOK

- 7.1. Market Size & Forecast
 - 7.1.1. By Value
- 7.2. Market Share & Forecast
 - 7.2.1. By Product (Instruments, Reagents)
- 7.2.2. By Technology (Tandem Mass Spectrometry, Pulse Oximetry, Enzyme Based Assay, DNA Assay and Others)
 - 7.2.3. By Test Type (Dry Blood Spot Test, CCHD, Hearing Screen)

8. JAPAN NEWBORN SCREENING MARKET OUTLOOK

- 8.1. Market Size & Forecast
 - 8.1.1. By Value
- 8.2. Market Share & Forecast
 - 8.2.1. By Product (Instruments, Reagents)
- 8.2.2. By Technology (Tandem Mass Spectrometry, Pulse Oximetry, Enzyme Based Assay, DNA Assay and Others)
 - 8.2.3. By Test Type (Dry Blood Spot Test, CCHD, Hearing Screen)

9. SOUTH KOREA NEWBORN SCREENING MARKET OUTLOOK

- 9.1. Market Size & Forecast
 - 9.1.1. By Value
- 9.2. Market Share & Forecast



- 9.2.1. By Product (Instruments, Reagents)
- 9.2.2. By Technology (Tandem Mass Spectrometry, Pulse Oximetry, Enzyme Based Assay, DNA Assay and Others)
 - 9.2.3. By Test Type (Dry Blood Spot Test, CCHD, Hearing Screen)

10. AUSTRALIA NEWBORN SCREENING MARKET OUTLOOK

- 10.1. Market Size & Forecast
 - 10.1.1. By Value
- 10.2. Market Share & Forecast
 - 10.2.1. By Product (Instruments, Reagents)
- 10.2.2. By Technology (Tandem Mass Spectrometry, Pulse Oximetry, Enzyme Based Assay, DNA Assay and Others)
 - 10.2.3. By Test Type (Dry Blood Spot Test, CCHD, Hearing Screen)

11. INDONESIA NEWBORN SCREENING MARKET OUTLOOK

- 11.1. Market Size & Forecast
 - 11.1.1. By Value
- 11.2. Market Share & Forecast
 - 11.2.1. By Product (Instruments, Reagents)
- 11.2.2. By Technology (Tandem Mass Spectrometry, Pulse Oximetry, Enzyme Based Assay, DNA Assay and Others)
 - 11.2.3. By Test Type (Dry Blood Spot Test, CCHD, Hearing Screen)

12. SINGAPORE NEWBORN SCREENING MARKET OUTLOOK

- 12.1. Market Size & Forecast
 - 12.1.1. By Value
- 12.2. Market Share & Forecast
 - 12.2.1. By Product (Instruments, Reagents)
- 12.2.2. By Technology (Tandem Mass Spectrometry, Pulse Oximetry, Enzyme Based Assay, DNA Assay and Others)
 - 12.2.3. By Test Type (Dry Blood Spot Test, CCHD, Hearing Screen)

13. VIETNAM NEWBORN SCREENING MARKET OUTLOOK

- 13.1. Market Size & Forecast
 - 13.1.1. By Value



- 13.2. Market Share & Forecast
 - 13.2.1. By Product (Instruments, Reagents)
- 13.2.2. By Technology (Tandem Mass Spectrometry, Pulse Oximetry, Enzyme Based Assay, DNA Assay and Others)
 - 13.2.3. By Test Type (Dry Blood Spot Test, CCHD, Hearing Screen)

14. MALAYSIA NEWBORN SCREENING MARKET OUTLOOK

- 14.1. Market Size & Forecast
 - 14.1.1. By Value
- 14.2. Market Share & Forecast
- 14.2.1. By Product (Instruments, Reagents)
- 14.2.2. By Technology (Tandem Mass Spectrometry, Pulse Oximetry, Enzyme Based Assay, DNA Assay and Others)
 - 14.2.3. By Test Type (Dry Blood Spot Test, CCHD, Hearing Screen)

15. THAILAND NEWBORN SCREENING MARKET OUTLOOK

- 15.1. Market Size & Forecast
 - 15.1.1. By Value
- 15.2. Market Share & Forecast
 - 15.2.1. By Product (Instruments, Reagents)
- 15.2.2. By Technology (Tandem Mass Spectrometry, Pulse Oximetry, Enzyme Based Assay, DNA Assay and Others)
 - 15.2.3. By Test Type (Dry Blood Spot Test, CCHD, Hearing Screen)

16. MARKET DYNAMICS

- 16.1. Drivers
- 16.2. Challenges

17. MARKET TRENDS & DEVELOPMENTS

- 17.1. Recent Development
- 17.2. Mergers & Acquisitions
- 17.3. Product Launches

18. ASIA PACIFIC NEWBORN SCREENING MARKET: SWOT ANALYSIS



19. PORTER'S FIVE FORCES ANALYSIS

- 19.1. Competition in the Industry
- 19.2. Potential of New Entrants
- 19.3. Power of Suppliers
- 19.4. Power of Customers
- 19.5. Threat of Substitute Products

20. COMPETITIVE LANDSCAPE

- 20.1. Agilent Technologies Co. Ltd
 - 20.1.1. Business Overview
 - 20.1.2. Company Snapshot
 - 20.1.3. Products & Services
 - 20.1.4. Financials (As Reported)
 - 20.1.5. Recent Developments
 - 20.1.6. Key Personnel Details
 - 20.1.7. SWOT Analysis
- 20.2. AB Sciex Pte. Ltd.
- 20.3. Trivitron Healthcare
- 20.4. Masimo Asia Pacific Pte Ltd.
- 20.5. Waters Technologies Shanghai Limited
- 20.6. Bio-Rad Laboratories (Singapore) Pte Ltd.
- 20.7. Shimadzu Corporation'
- 20.8. Tulip Diagnostics (P) Ltd.
- 20.9. Genetics Generation Asia Sdn. Bhd.
- 20.10. Novartis Singapore Pte Ltd.

21. STRATEGIC RECOMMENDATIONS

22. ABOUT US & DISCLAIMER



I would like to order

Product name: Asia Pacific Newborn Screening Market By Product (Instruments, Reagents), By

Technology (Tandem Mass Spectrometry, Pulse Oximetry, Enzyme Based Assay, DNA Assay and Others), By Test Type (Dry Blood Spot Test, CCHD, Hearing Screen), By

Country, Competition, Forecast and Opportunities, 2019-2029F

Product link: https://marketpublishers.com/r/A8C021D7EFF8EN.html

Price: US\$ 4,400.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer

Service:

info@marketpublishers.com

Payment

First name:

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/A8C021D7EFF8EN.html

To pay by Wire Transfer, please, fill in your contact details in the form below:

Last name:	
Email:	
Company:	
Address:	
City:	
Zip code:	
Country:	
Tel:	
Fax:	
Your message:	
	**All fields are required
	Custumer signature

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at https://marketpublishers.com/docs/terms.html



To place an order via fax simply print this form, fill in the information below and fax the completed form to $+44\ 20\ 7900\ 3970$