

TIME	TOPICS		
08:40~09:00	Registration		
09:00~09:05	Welcome Address Chung-Liang Shih (Minister of Health and Welfare)		
09:05~09:15	Opening Remarks Shih-Chung Chen (Minister without Portfolio, Executive Yuan) Ming-Chien Cheng (Minister of Justice)		
09:15~09:20	Group Photo		
	TOPICS	MODERATORS	SPEAKERS
09:20~09:50	Learning from Adverse Events: How Japan's No-Fault Compensation System Improved Perinatal Safety	Wei -Chun Chang President of TAOG Jin-Chung Shih President of TSOP	Mamoru Tanaka Professor Emeritus, Keio University
09:50~10:20	From Survival to Sustainability: Lessons from Korea's Perinatal Care Transformation	San-Nan Yang President of TSN Hung-Yi Chiou Director of Institute of Population Health Sciences at NHRI	Han-Suk Kim Professor, Department of Pediatrics, Seoul National University College of Medicine
10:20~10:35	Q&A		
10:35~10:50	Coffee Break		
10:50~11:20	No-fault Compensation for Medical and Maternal Injury in New Zealand	Chao-Kai Chang Chairperson, TSLM Tsung-fu Chen Chair Professor, NTU	Katharine Wallis Mayne Professor and Head of the Mayne Academy of General Practice at The University of Queensland Medical School
11:20~11:50	10 Years Result of Childbirth Accident Emergency Relief Act in Taiwan	Tsung-Hsien Su President of FWHUT Cheng-Chung Fang CEO of Joint Commission of Taiwan	Yueh-Ping Liu Director-General, Department of Medical Affairs, Ministry of Health and Welfare
11:50~12:05	Q&A		

TIME	TOPICS		
13:10~13:25	下午報到		
13:25~13:30	Opening Remarks 林靜儀 (衛生福利部次長)		
	TOPICS	MODERATORS	SPEAKERS
13:30~14:00	台灣產科醫療安全政策：現況、挑戰與展望	黃建霈秘書長 康琳理事長	詹德富 高雄醫學大學附設醫院 醫品病安管理中心主任
14:00~14:20	與談人 陳亮妤 (衛生福利部中央健康保險署署長) 黃建霈 (台灣婦產科醫學會秘書長) 康琳 (母胎醫學會理事長)		
14:20~14:50	台灣新生兒與周產期照護之政策發展：現況、挑戰與未來展望	楊生滿理事長 林其和名譽教授	陳美惠 國衛院兒童醫學及健康 研究中心執行秘書長
14:50~15:10	與談人 林宇旋 (衛生福利部國民健康署婦幼健康組組長) 楊生滿 (台灣新生兒科醫學會理事長) 林其和 (成功大學醫學院附設醫院兒科名譽教授)		
15:10~15:20	Coffee Break		
15:20~15:50	生產事故救濟條例與醫療事故預防及爭議處理法(醫預法)之法律關聯性分析	王志嘉教授 黃鈺嫻副執行長	廖建瑜 高等法院刑事庭審判長兼法官
15:50~16:10	與談人 周賢章 (中華民國醫師公會全國聯合會理事) 王志嘉 (國防醫學大學醫學系教授) 黃鈺嫻 (財團法人藥害救濟基金會副執行長)		
16:10~16:40	從止訟到走出傷痛：生產事故救濟制度的實踐與挑戰	劉玉菁副司長 林宏榮院長	黃閔照 財團法人台灣婦女健康暨 泌尿基金會執行長
16:40~17:00	與談人 陳柏熹 (衛生福利部心理健康司司長) 劉玉菁 (衛生福利部醫事司副司長) 林宏榮 (奇美醫院院長)		
17:00~17:10	Closing Remarks 蘇聰賢 (財團法人台灣婦女健康暨泌尿基金會董事長)		

Learning from Adverse Events: How Japan's No-Fault Compensation System Improved Perinatal Safety

Mamoru Tanaka, MD, PhD
Professor Emeritus
Keio University



Compensation • Analysis • Prevention

30-minute roadmap

Suggested timing for a concise invited lecture



The problem: adverse birth outcomes need more than litigation

Families need answers; clinicians need learning; systems need prevention.

Family perspective

Financial support, clear explanations, sincere reflection, and assurance that the event will help prevent future harm.

Clinical perspective

Fear of blame can inhibit transparency and open discussion of weak signals, near misses, and system vulnerabilities.

Policy perspective

Fragmented case reviews cannot reliably identify national patterns or translate them into safety guidance.

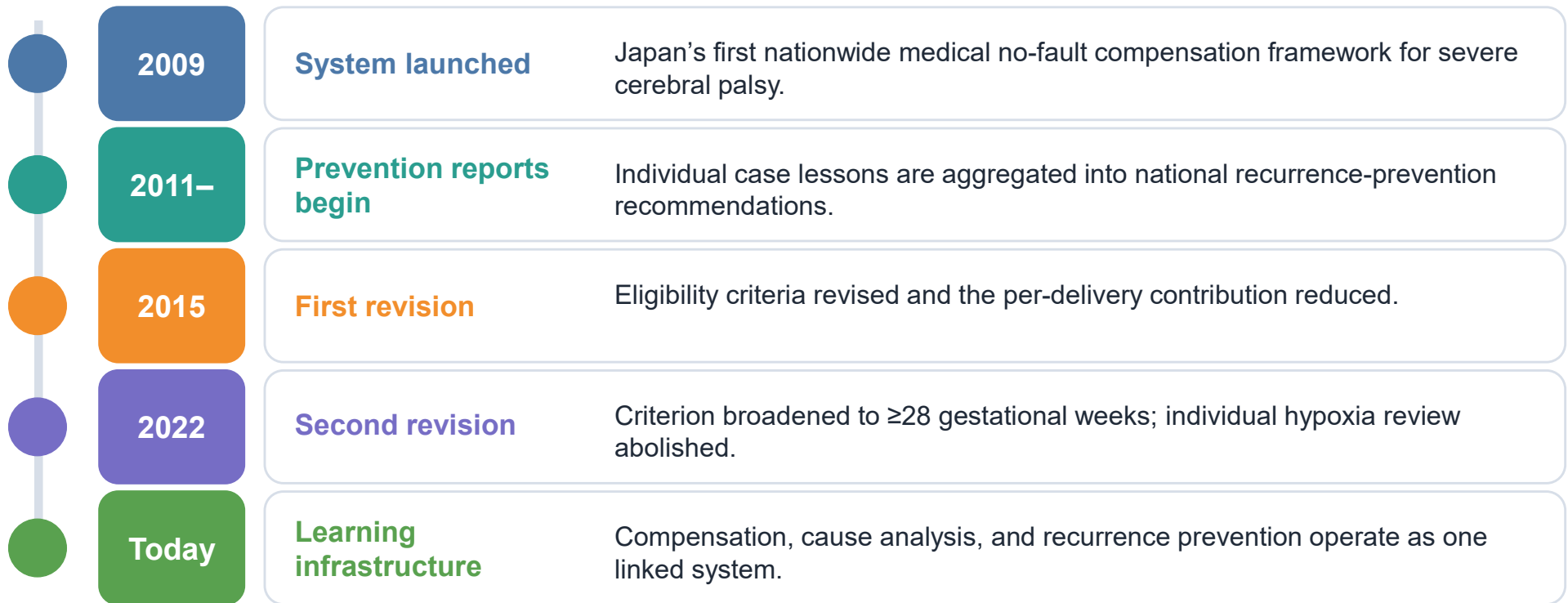


**A no-fault framework can shift the default response from “Who is responsible?”
to “What must change?”**

History: from dispute resolution to prevention

The Japanese no-fault model evolved from patient support into a national safety-learning system.

2009 launch → case analysis → recurrence-prevention reports → eligibility revisions → continuous safety learning



Core historical lesson: compensation becomes most powerful when it is designed to generate prevention.

Current system: how the Japanese model works today

A single national pathway links family support, expert review, and system-wide prevention.

Who is covered? (born on/after Jan 1, 2022)

Birth under medical management by a childbirth facility

Gestational age: 28 weeks or more

Severe cerebral palsy not primarily due to congenital or neonatal factors

Severity equivalent to physical disability grade 1 or 2

What is provided?

¥30M

Total compensation

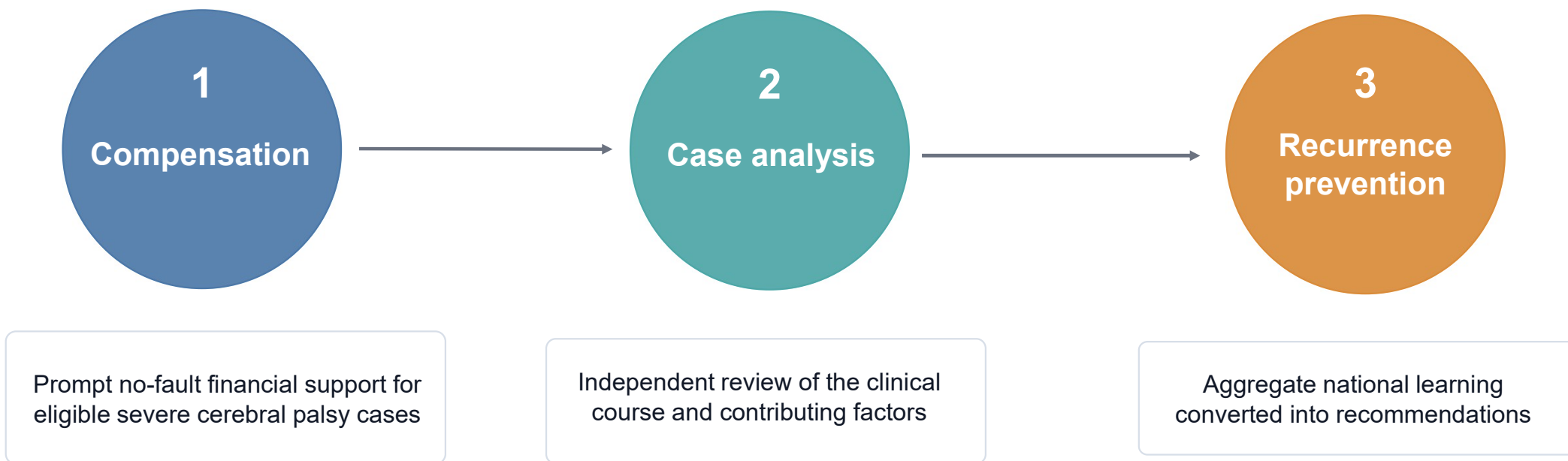
¥6 million lump sum
+ ¥1.2 million/year × 20 years

After certification: 1 Cause analysis report → 2 National aggregation → 3 Recurrence-prevention recommendations

Operating body: JCQHC | Financing: per-delivery facility contribution | Application deadline: until the child's 5th birthday

Japan's answer: one national system with three linked functions

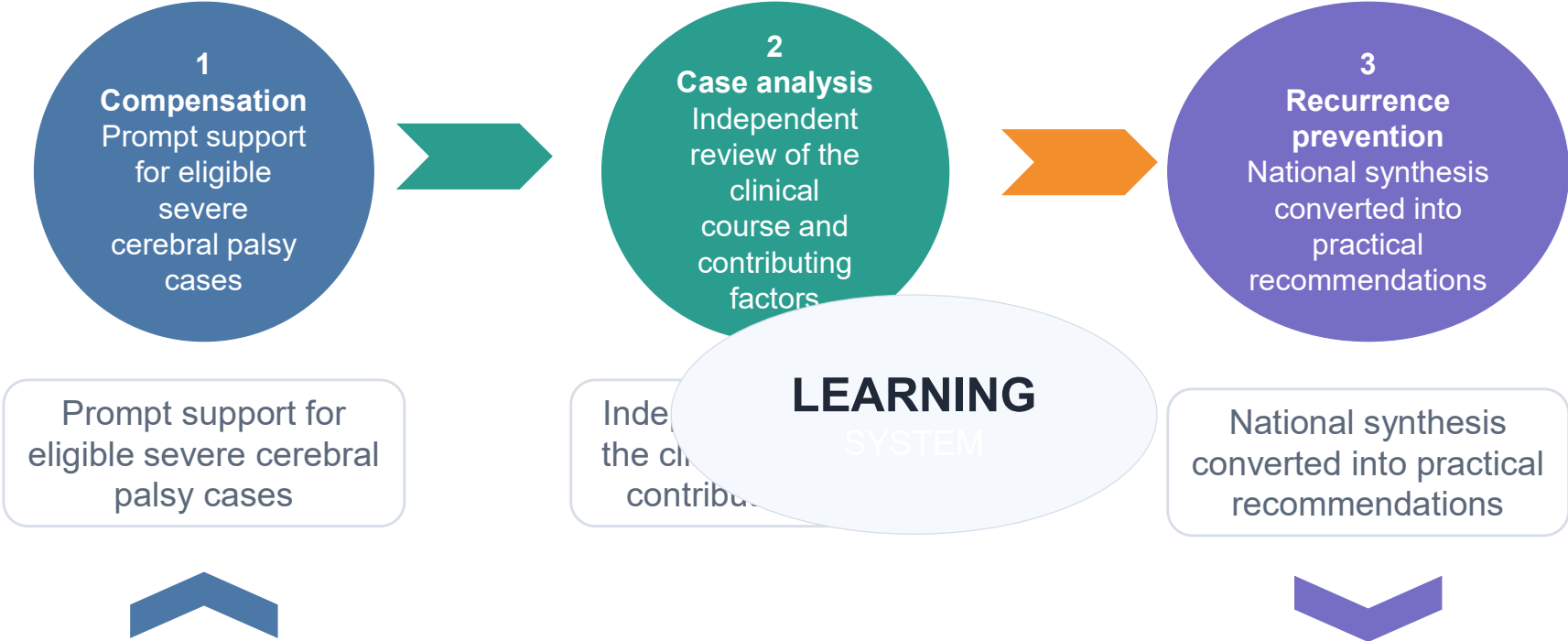
JOCS-CP was launched in 2009 and is overseen by the Japan Council for Quality Health Care.



Core design principle: the same case that triggers compensation also becomes a data point for national safety learning.

One architecture, three functions

A no-fault compensation system becomes a learning system when compensation, analysis, and prevention are linked.



Key message: the same case that receives compensation also becomes a source of national learning and prevention.

Why national coverage matters

Rare but devastating events become analyzable when aggregated consistently.

99.9%

health care facilities
participating by end-2022

3,807

cases awarded compensation
by end-2022

1

standardized national learning
cycle



Coverage at a glance

Near-universal participation enables a true national learning cycle.



Near-universal national coverage
facilitates trustworthy aggregation and learning

3,807

compensated cases
by end-2022

2009

program launch

National learning cycle



Why it matters: rare but devastating events become visible, analyzable, and teachable at national scale.

What is compensated? A focused, high-severity target

The system focuses on severe cerebral palsy associated with perinatal events.

Clinical scope

Severe cerebral palsy related to perinatal events, assessed through defined eligibility criteria and expert review.

Operational scope

Participating facilities register births and use an insurance-based mechanism to deliver compensation.

Learning scope

Each accepted case becomes a structured investigation report and part of an aggregate national dataset.

A narrow target can create a powerful safety signal when the review process is systematic and transparent.

The Recurrence Prevention Committee: the engine of learning

From individual tragedy to reusable safety knowledge.

Multidisciplinary review

Obstetricians, neonatologists, midwives, legal/quality experts and other relevant perspectives

Standardized analysis

Clinical sequence, fetal monitoring, decision timing, communication and institutional readiness

National recommendations

Annual reports and educational materials disseminated to obstetric providers

The committee converts repeated case-level lessons into system-level prevention strategies.

Repeated themes identified through national case review

The details vary; the vulnerabilities recur.

CTG interpretation

Recognizing evolving fetal hypoxia

Decision timing

Escalation and operative delivery

Team communication

Shared mental model during emergencies

System readiness

Protocols, training, transfer and staffing

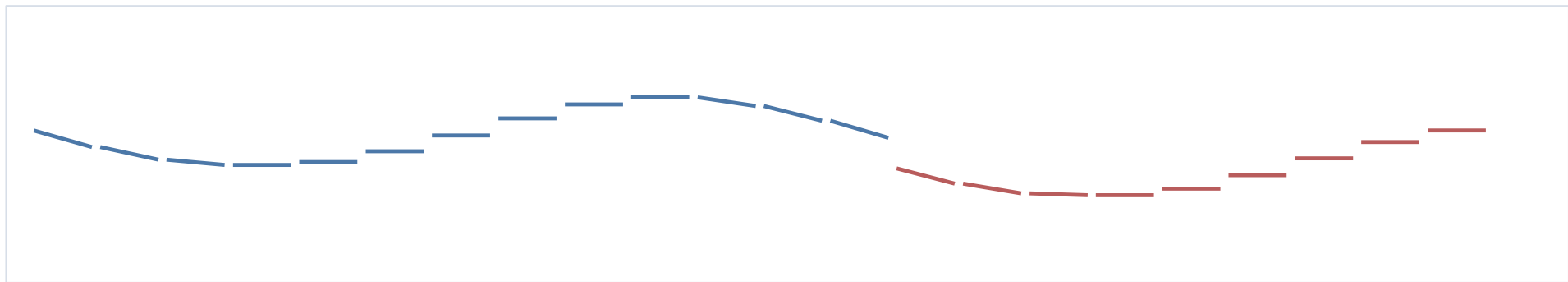
Documentation

Clear chronology supports learning

These themes can be audited, trained, and improved - a key advantage of aggregate analysis.

Example: fetal monitoring as a recurring safety signal

A common thread became a national improvement opportunity.



Normal baseline

Recurrent decelerations

Delayed escalation risk

Learning point

Standardized language and shared thresholds reduce ambiguity.

Practice change

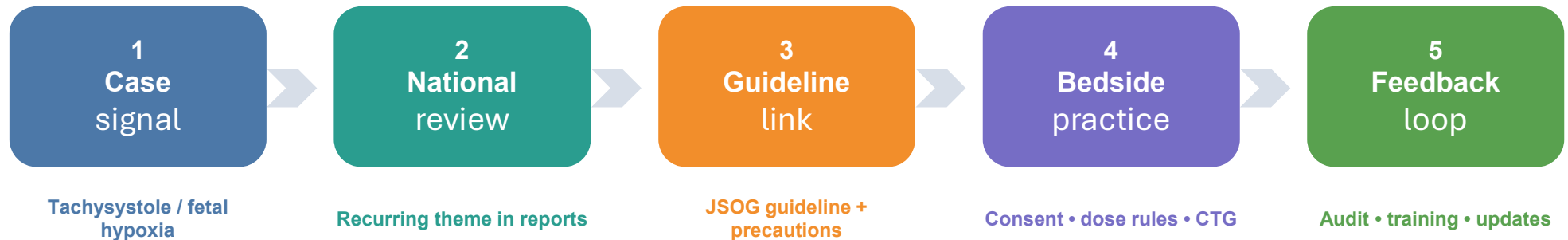
Training focuses on recognition, escalation, and documentation.

Outcome pathway

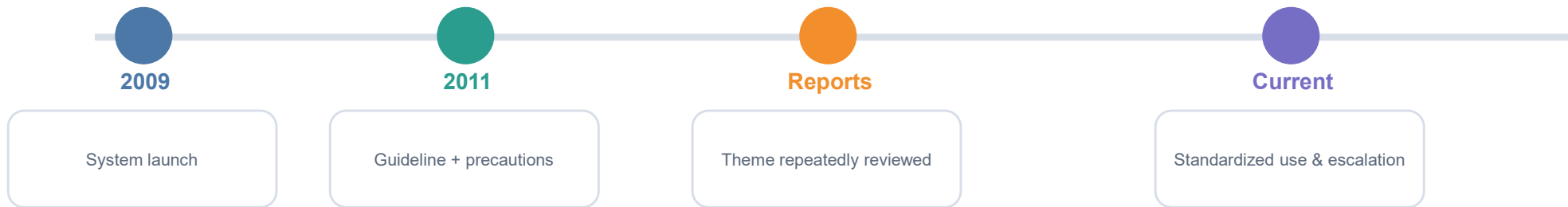
Fewer preventable intrapartum hypoxic injuries.

Example: oxytocin use — from case review to guideline-driven practice

How adverse-event analysis is translated into concrete bedside safety behavior.



Safety translation timeline



Before increasing oxytocin: confirm no tachysystole and no non-reassuring fetal status; use continuous monitoring and timely escalation.

Sources: JCQHC recurrence-prevention reports; JSOG Obstetrics Guideline; PMDA safety communication on uterotonic agents.

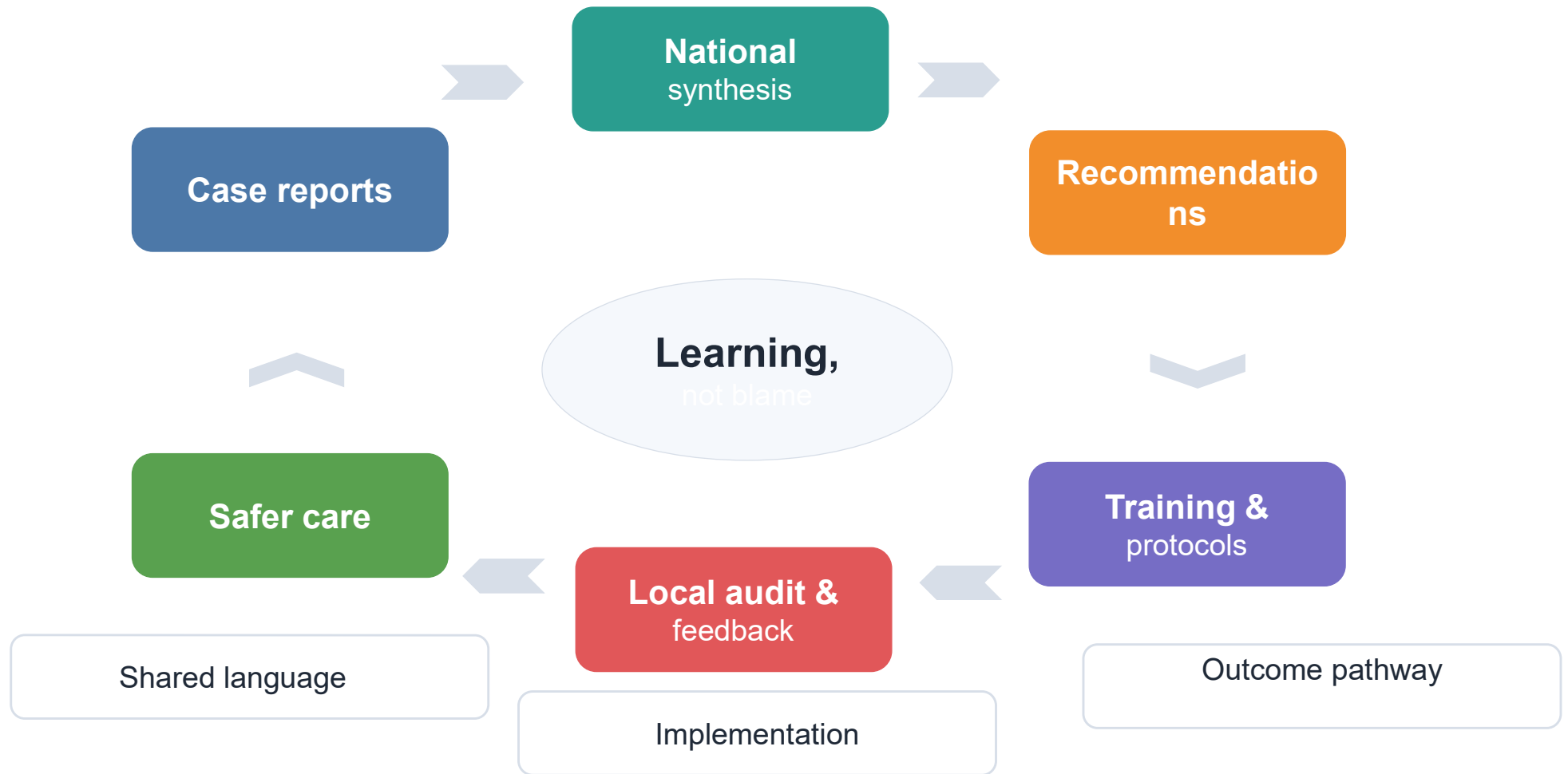
How recommendations reach practice

A report only improves outcomes when it becomes behavior.



From cases to safer care

The recurrence-prevention mechanism works as a closed learning loop rather than a one-way report.



Measurable improvement: what can be said cautiously

Attribution is complex; direction of change is meaningful.

Observed signal

Compensated cases have declined over time, with notable reductions in fetal monitoring-related cases according to international case-study summaries.

Mechanism

Standardized case reports reveal recurring patterns; national reports translate them into practice guidance.

Interpretation

Birth rate changes and other quality initiatives also contribute. The safest claim is contribution, not single-cause attribution.

The strongest measurable outcome is the creation of a national learning system that can detect, disseminate, and track prevention opportunities.

Parallel maternal safety initiative: confidential enquiry and prevention

Japan also reviews maternal deaths to translate rare fatal outcomes into prevention.

Maternal death review

Since 2010, maternal deaths in Japan have been systematically reported, anonymized, and reviewed by a multidisciplinary expert panel.

Recurring actions

Recommendations address hemorrhage, cardiovascular disease, hypertensive disorders, sepsis, mental health, transport, and rapid response.

Shared philosophy

The maternal mortality system and JOCS-CP both convert severe events into learning without reducing safety to blame.

Two Japanese learning systems, one safety philosophy

Cerebral palsy compensation and maternal death review are complementary.

Dimension	JOCS-CP	Maternal death review
Primary event	Severe cerebral palsy associated with perinatal events	Maternal death during pregnancy or postpartum
Main output	Compensation + investigation reports + recurrence prevention reports	Confidential enquiry + recommendations to save mothers' lives
Prevention focus	Perinatal hypoxia, CTG, escalation, teamwork	Hemorrhage, critical care, transport, disease-specific pathways
System value	Creates a national dataset from rare events	Creates a national learning loop from fatal events

Trust is a safety intervention

Families often seek five things - compensation is only one of them.



Implementation lessons for countries considering no-fault systems

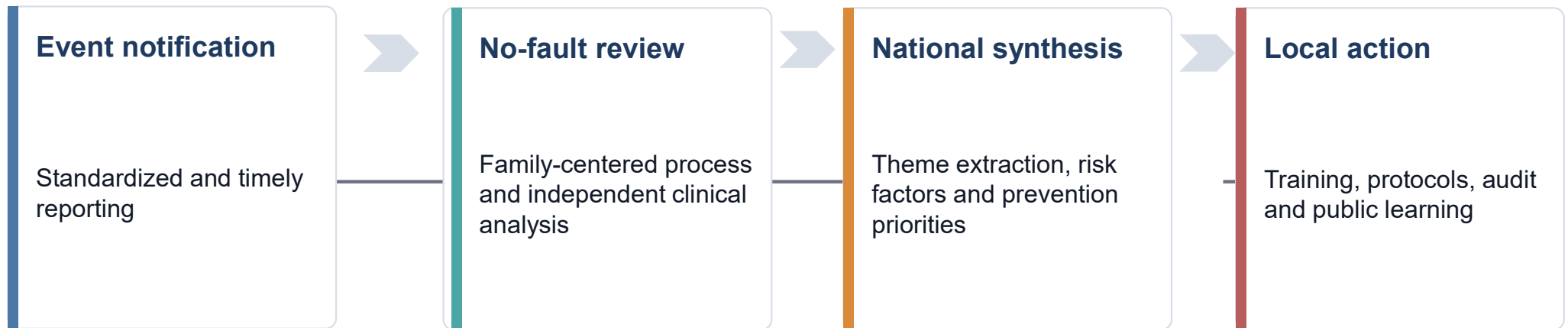
The design must fit the local health, legal, and social context.

- Start with a clearly defined event and eligibility boundary.
- Use a trusted neutral operating body with clinical credibility.
- Separate compensation decisions from blame and disciplinary processes.
- Standardize case reports to enable aggregation and learning.
- Invest in dissemination, simulation, audit, and feedback - reports alone are not enough.

Adoption is not copying the Japanese system. Adoption means copying the learning architecture and adapting the governance.

A practical policy architecture: compensation as a learning platform

A possible template for discussion in Taiwan and other settings.




Goal: less silence after harm, more learning before the next harm.

Take-home messages

Five messages for clinicians, policymakers, and families.

- 1 No-fault compensation can reduce the adversarial barrier to learning.
- 2 The most important output is not money alone - it is trustworthy explanation.
- 3 National aggregation reveals patterns invisible to individual hospitals.
- 4 Recurrence prevention requires implementation, not only publication.
- 5 Maternal and perinatal safety improve when rare events become shared knowledge.



**From compensation to prevention,
from cases to systems,
from blame to learning.**

Japan's experience suggests that a no-fault obstetric compensation system can become a national safety infrastructure when it is paired with independent analysis, transparent reporting, and continuous recurrence prevention.

Selected sources for slide preparation

Please verify locally before final publication or data-heavy claims.

- Japan Council for Quality Health Care: English materials on the Japan Obstetric Compensation System for Cerebral Palsy.
- Imperial College London, Global State of Patient Safety 2023, Case study: no-fault maternity compensation schemes.
- Ushiro S. Japan Obstetric Compensation System for Cerebral Palsy publications, including strategic system and current status articles/chapters.
- Japan Maternal Death Exploratory Committee / INOSS profile and publications on recommendations for saving mothers' lives in Japan.
- PLOS ONE and Acta Obstet Gynecol Scand papers using JOCS-CP data on obstetric factors and fetal monitoring.

Additional sources for the two new overview slides: MHLW, “産科医療補償制度について”; JCQHC, 2026 system handbook and system guidance.



SEOUL NATIONAL UNIVERSITY
College of Medicine
Department of Pediatrics



From Survival to Sustainability: Lessons from Korea's Neonatal Care Transformation

Division of Neonatology, Department of Pediatrics

Seoul National University Children's Hospital

Seoul National University College of Medicine

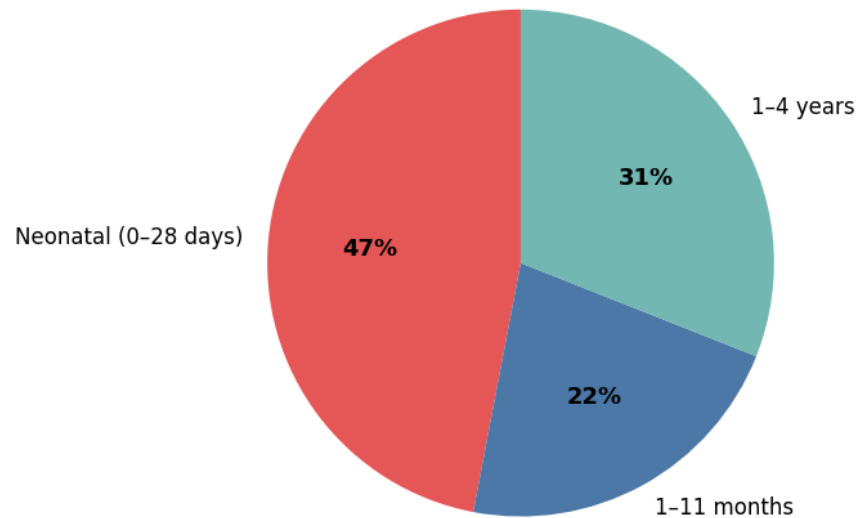
Han-Suk Kim, M.D., Ph.D.

COI Disclosure

I have no actual or potential conflict of interest in relation to this presentation.

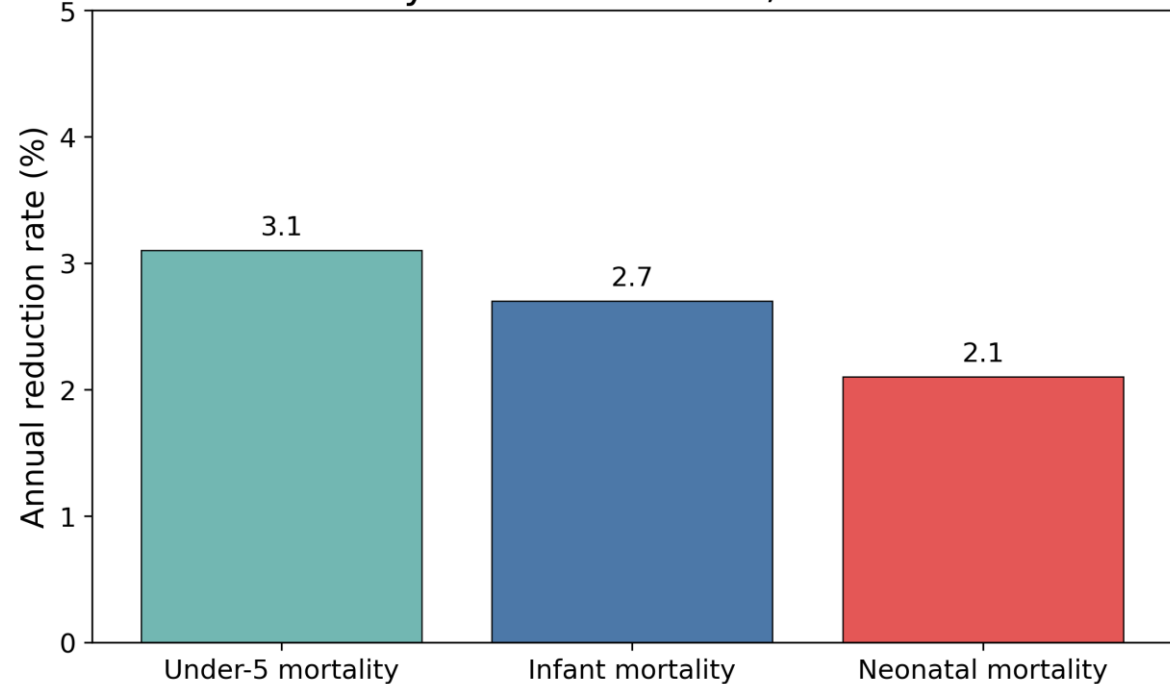
Why Neonatal Survival Matters

Distribution of Under-5 Deaths by Age



Source: UN Inter-agency Group for Child Mortality Estimation (UN IGME) 2023

Mortality Reduction Rates, 1990-2022



Source: UN Inter-agency Group for Child Mortality Estimation (UN IGME) 2023

Nearly half of all deaths among children under five occur during the neonatal period, and the reduction rate in neonatal mortality is lower than in other childhood age groups.

Korea's Neonatal Journey

Korea's Neonatal Care Transformation

One of the fastest improvements in neonatal outcomes worldwide

- Neonatal mortality: ~6 → 1.1 per 1,000 live births
- Survival of VLBW infants: 86% → 91%
- Universal health coverage
- National quality-improvement programs

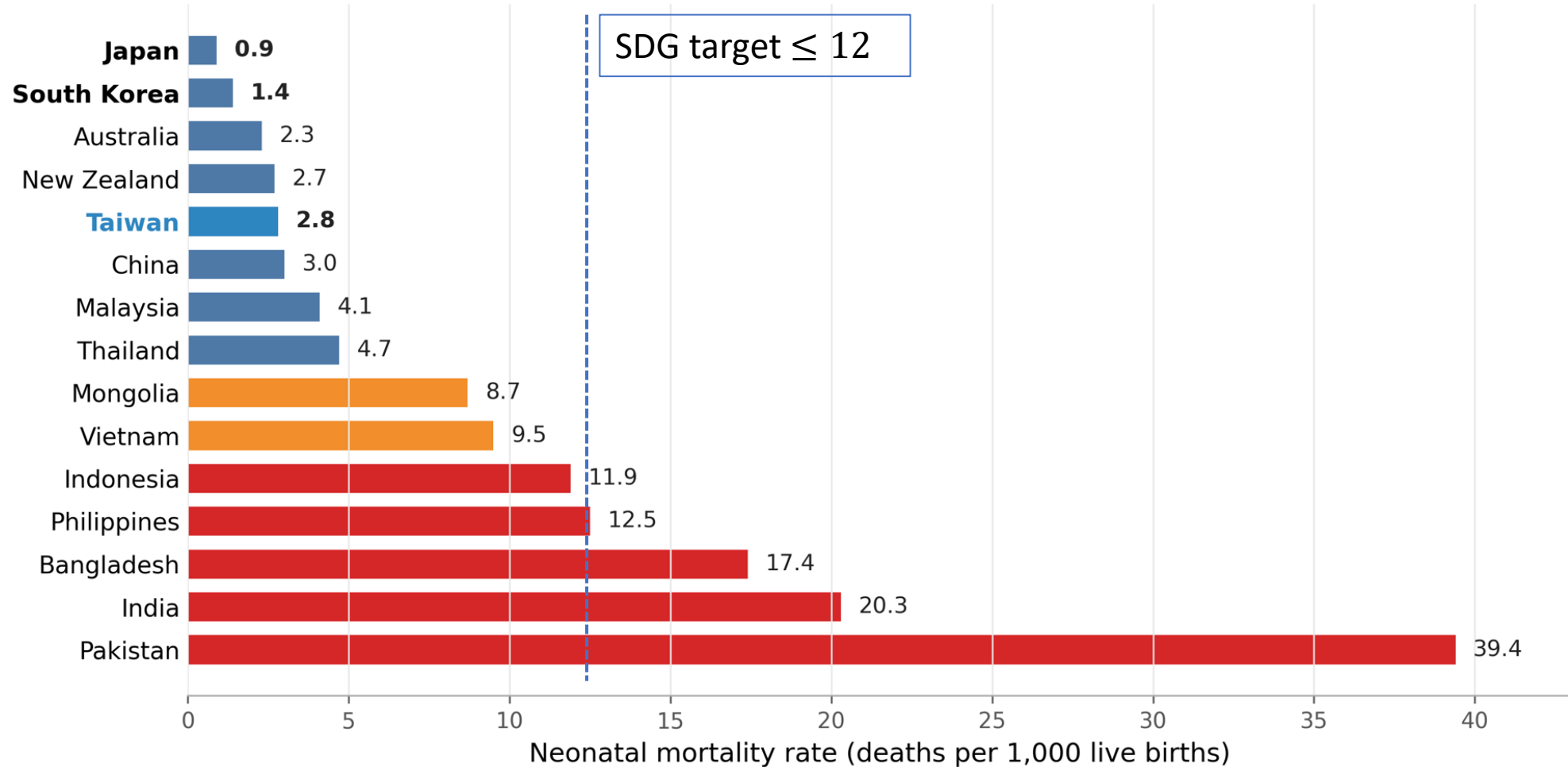
Yet at the same time...

- World's lowest fertility rate
- Rapid workforce shortages
- Increasing pressure on perinatal services

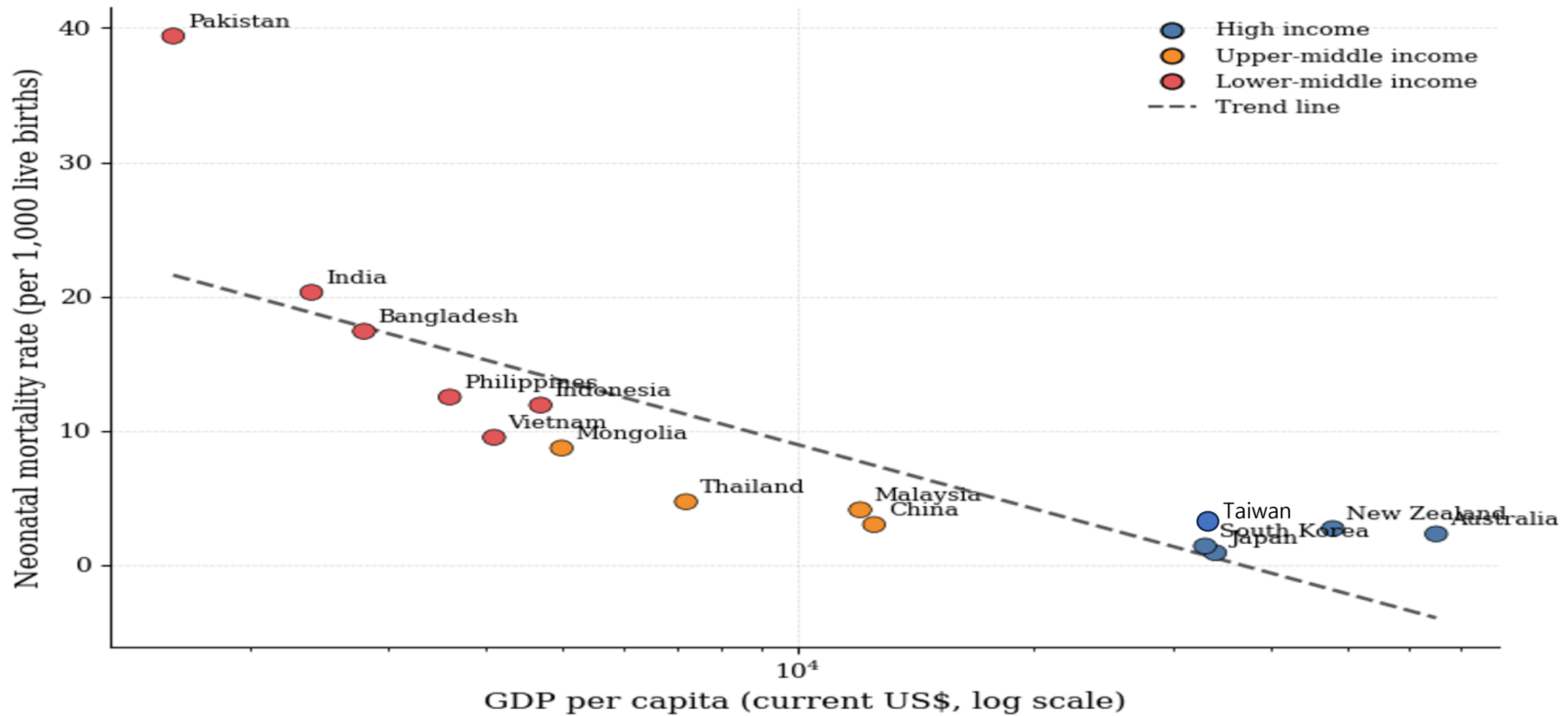
Key Question

Can excellent neonatal outcomes be sustained in an era of demographic decline?

Large Inequities in Neonatal Mortality Across the Asia–Oceania Region

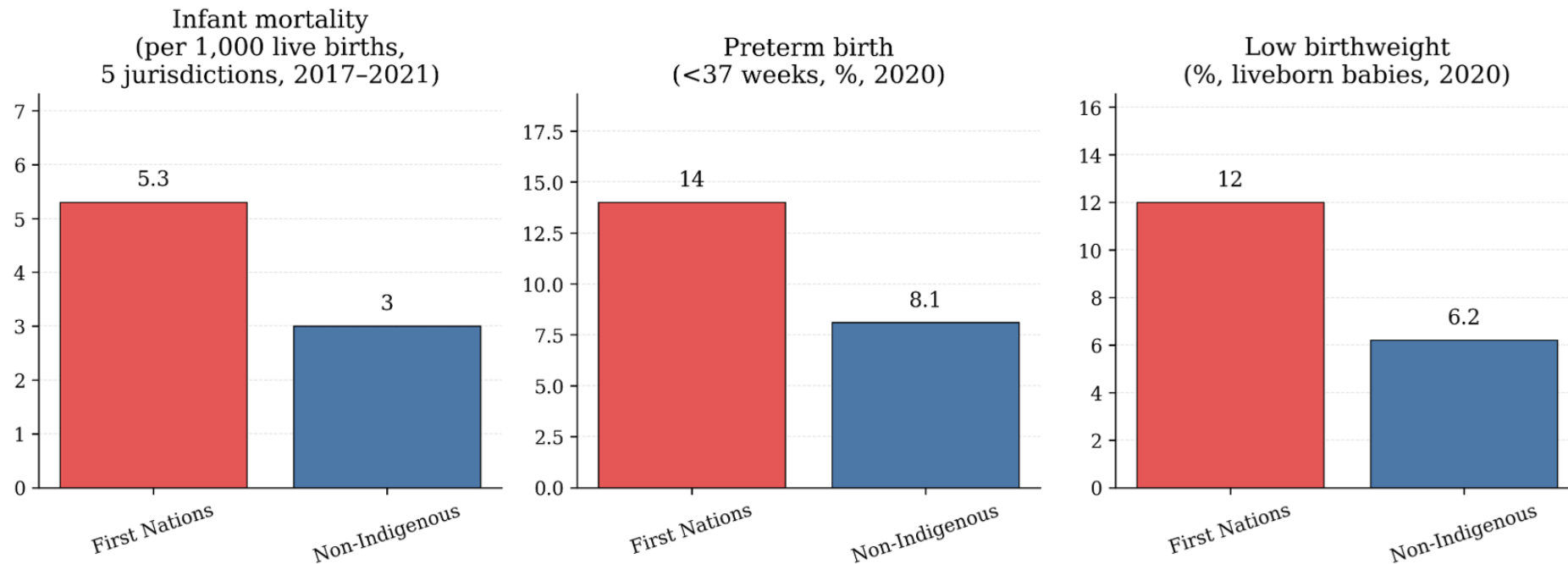


GDP vs Neonatal Mortality in Asia–Oceania



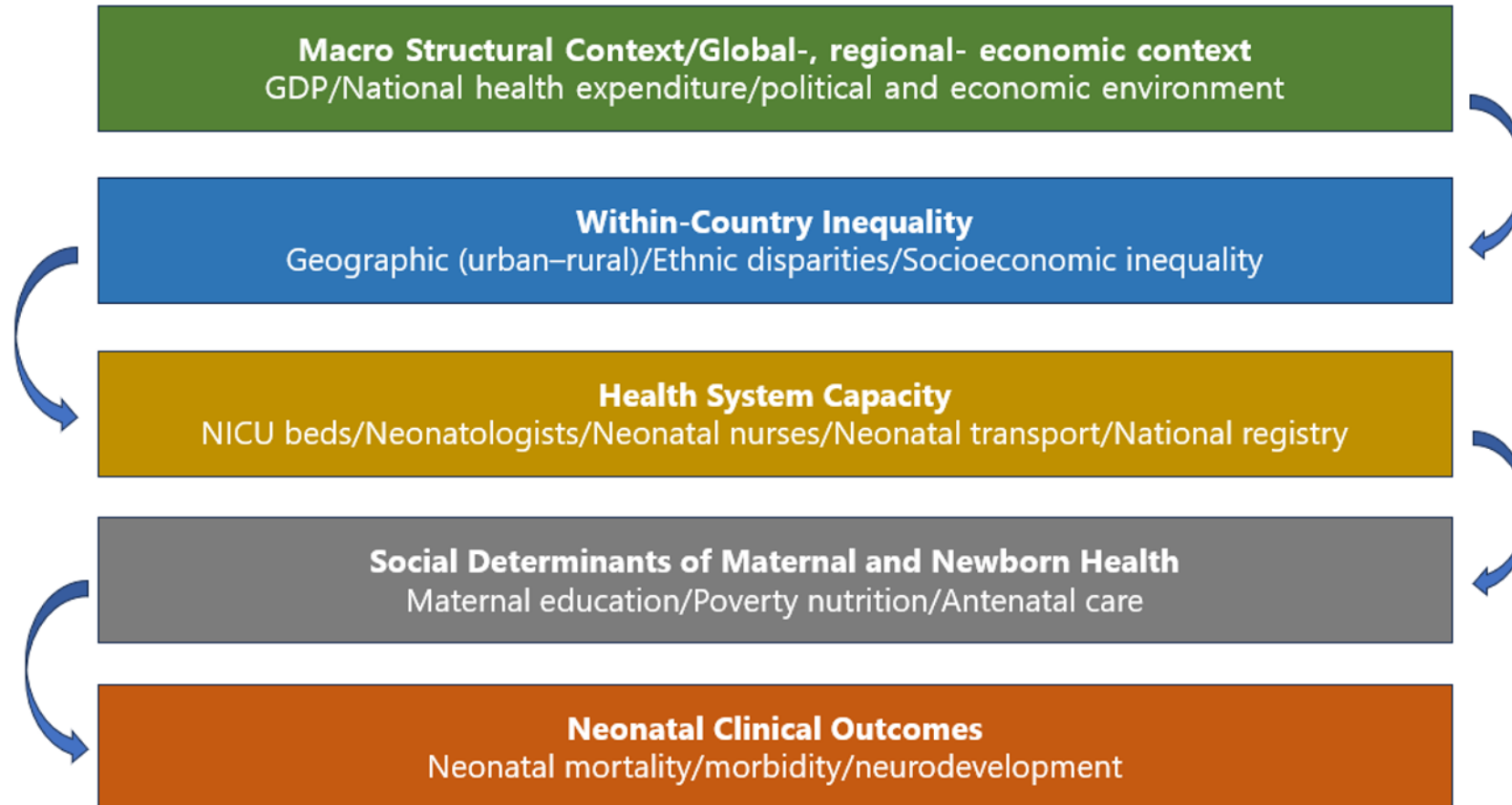
Sources: UN IGME 2023 (neonatal mortality) and World Bank World Development Indicators (GDP per capita)

Within-country inequities in perinatal and infant outcomes in high income country: Australia



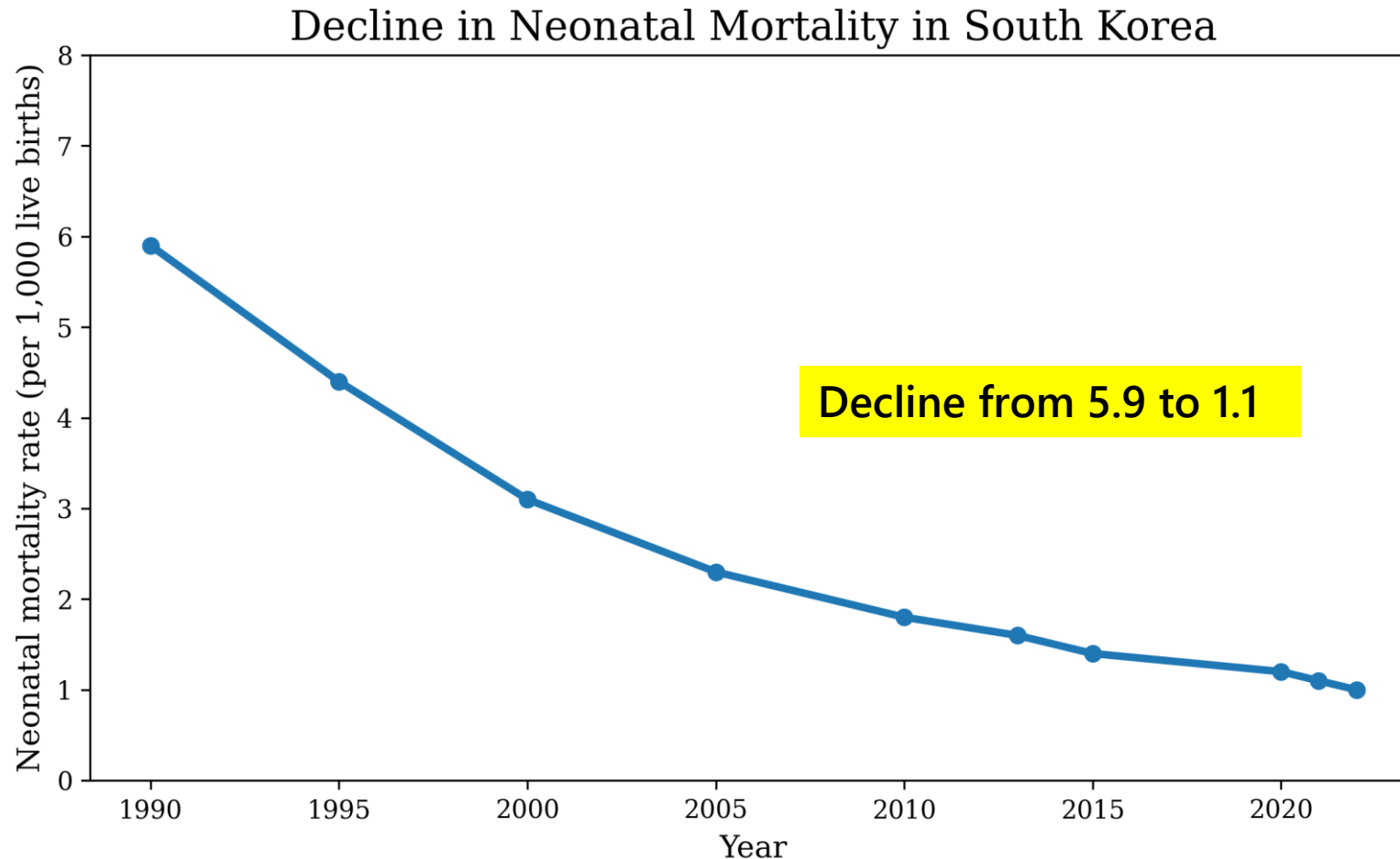
Sources: AIHW Indigenous HPF 1.20 Infant and child mortality (5 jurisdictions, 2017-2021); AIHW Aboriginal and Torres Strait Islander mothers and babies—Gestational age and Birthweight (2020).

Structural Drivers of Neonatal Health Inequity



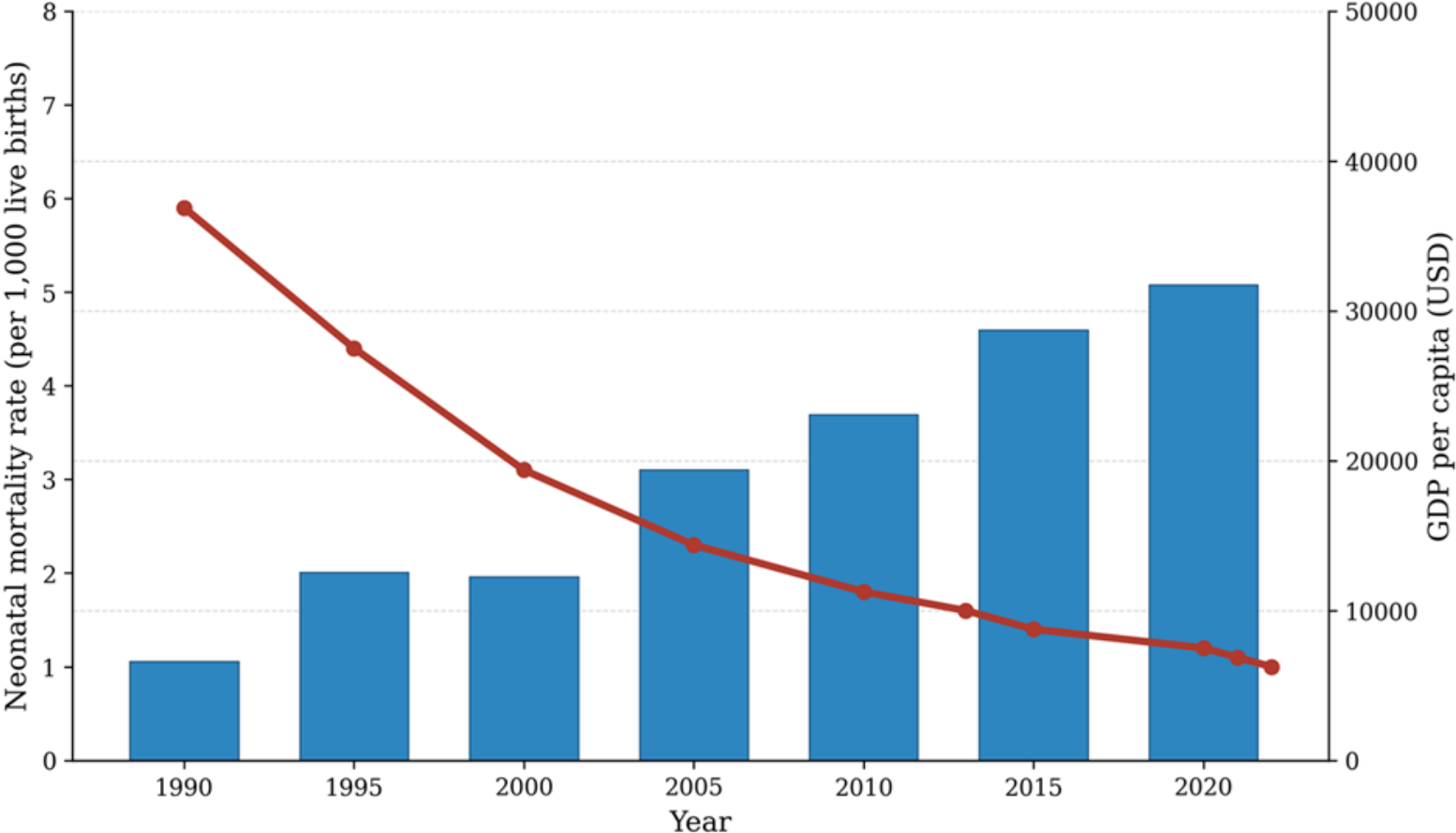
Concept adapted from WHO Social Determinants of Health Framework (Solar & Irwin, 2010) and the Lancet Every Newborn Series (Bhutta et al., Lancet 2014).

A case study; Korea's neonatal journey over 30 years



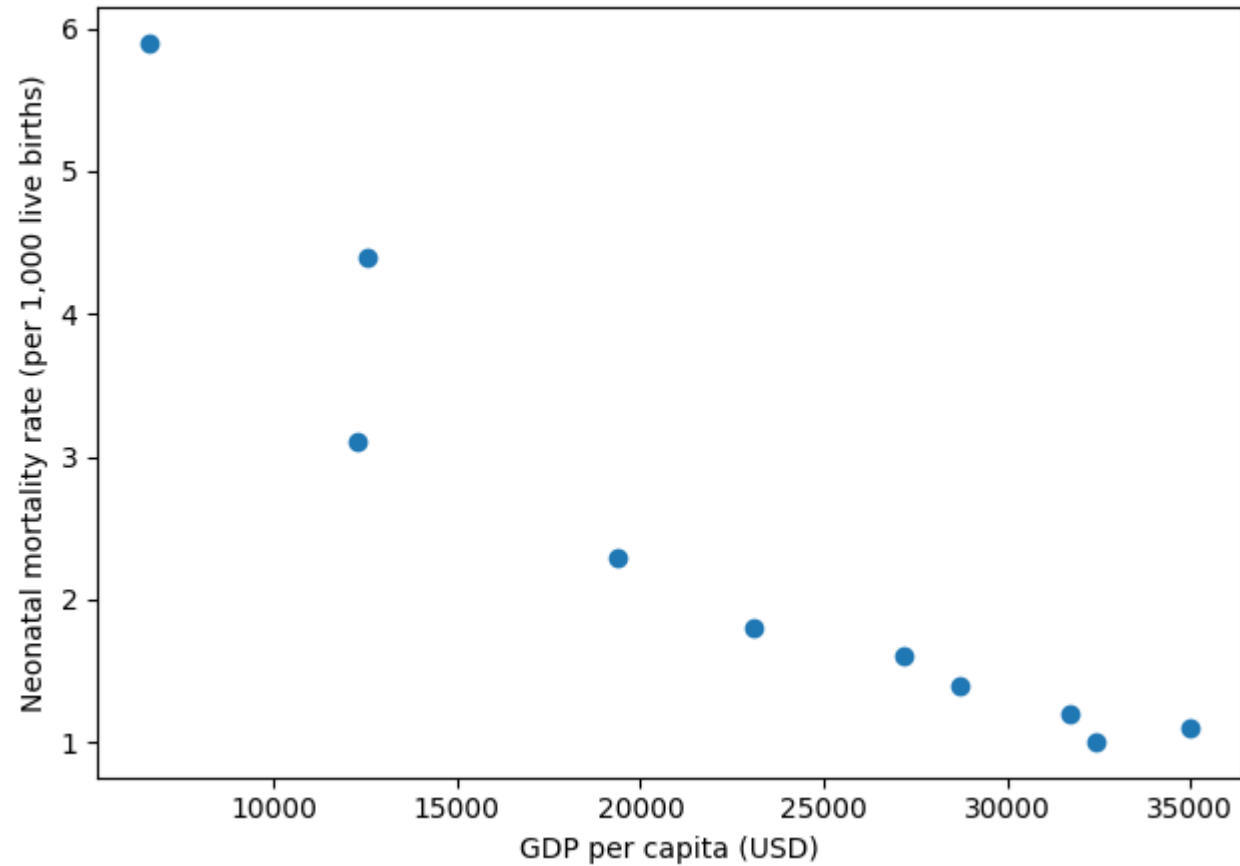
Neonatal mortality: UN IGME

Economic Growth and Neonatal Survival in South Korea



Neonatal mortality: UN IGME / World Bank GDP per capita: World Bank WDI

GDP per capita vs. NMR in South Korea



Neonatal mortality: UN IGME / World Bank GDP per capita: World Bank WDI

The Korea's Experience: A Journey from 5.9 to 1.1

1. Strategic Centralization & Regionalization (1990s-2000s)

-Implementation: Establishment of a tiered perinatal system. High-risk pregnancies were concentrated in "Tertiary Perinatal Centers".

-Data Impact: Concentrating expertise and technology significantly improved the survival of Extremely Low Birth Weight Infants (ELBWIs).

2. National Health Insurance & Financial Protection

-Universal Coverage: Since the 2000s, the Korean government has practically eliminated the financial burden for NICU care (near-zero out-of-pocket costs for families).

-Objective: Ensured that economic status never dictated the quality of care a newborn received.

The Korea's Experience: A Journey from 5.9 to 1.1

3 . Government-led Infrastructure Investment (2008-Present)

-NICU Expansion Project: The Ministry of Health provided substantial subsidies to expand NICU beds and upgrade equipment in under-served regions.

-Evidence: The number of NICU beds nationwide increased from ~1,200 (in 2011) to over 1,800 (by 2021).

4 . Quality Improvement (QI) through Registry & Collaboration

-**The KNN (Korean Neonatal Network)**: Established in 2013, this national registry (supported by the KDCA) tracks >95% of VLBWIs.

-Outcome: Benchmarking and data-sharing among centers led to the standardization of advanced protocols (e.g., surfactant, gentle ventilation, nutrition).

Korean Neonatal Network (KNN): Building a National Quality Improvement Platform

Background:

- Established in **2013**
- Supported by the Korean Centers for Disease Control and Prevention (currently KDCA)
- Nationwide prospective registry for very low birth weight infants (VLBWI)
- Birth weight <1,500 g
- Covers **>90% NICUs nationwide**
- Captures **>80% of VLBW infants** born in Korea

Key Components:

- **National Registry**
- Standardized data collection
- Real-time benchmarking
- Longitudinal outcome monitoring
- **Quality Improvement**
 - Center-specific feedback reports
 - Identification of practice variation
 - Evidence-based quality improvement initiatives

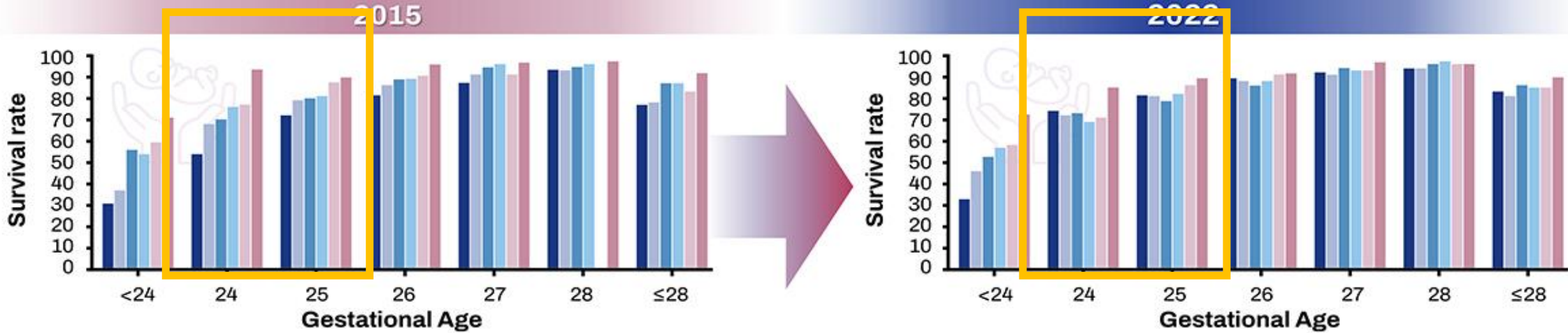
Research Platform:

Multicenter clinical studies, Epidemiologic surveillance, International collaboration

Improved Outcomes of Very Low Birth Weight Infants in Korea: 2015–2016 vs. 2021–2022 From the Korean Neonatal Network



This study analyzed improvements in survival rates and morbidities of very low birth weight infants in Korea from 2015 to 2022, compared to international neonatal networks.



■ Korea ■ USA ■ Australia and New Zealand ■ Canada ■ Sweden ■ Japan



Survival rate of very low birth weight infants in Korea

86% 2015–2016 → 91% 2021–2022



Improved survival to near high-income country levels

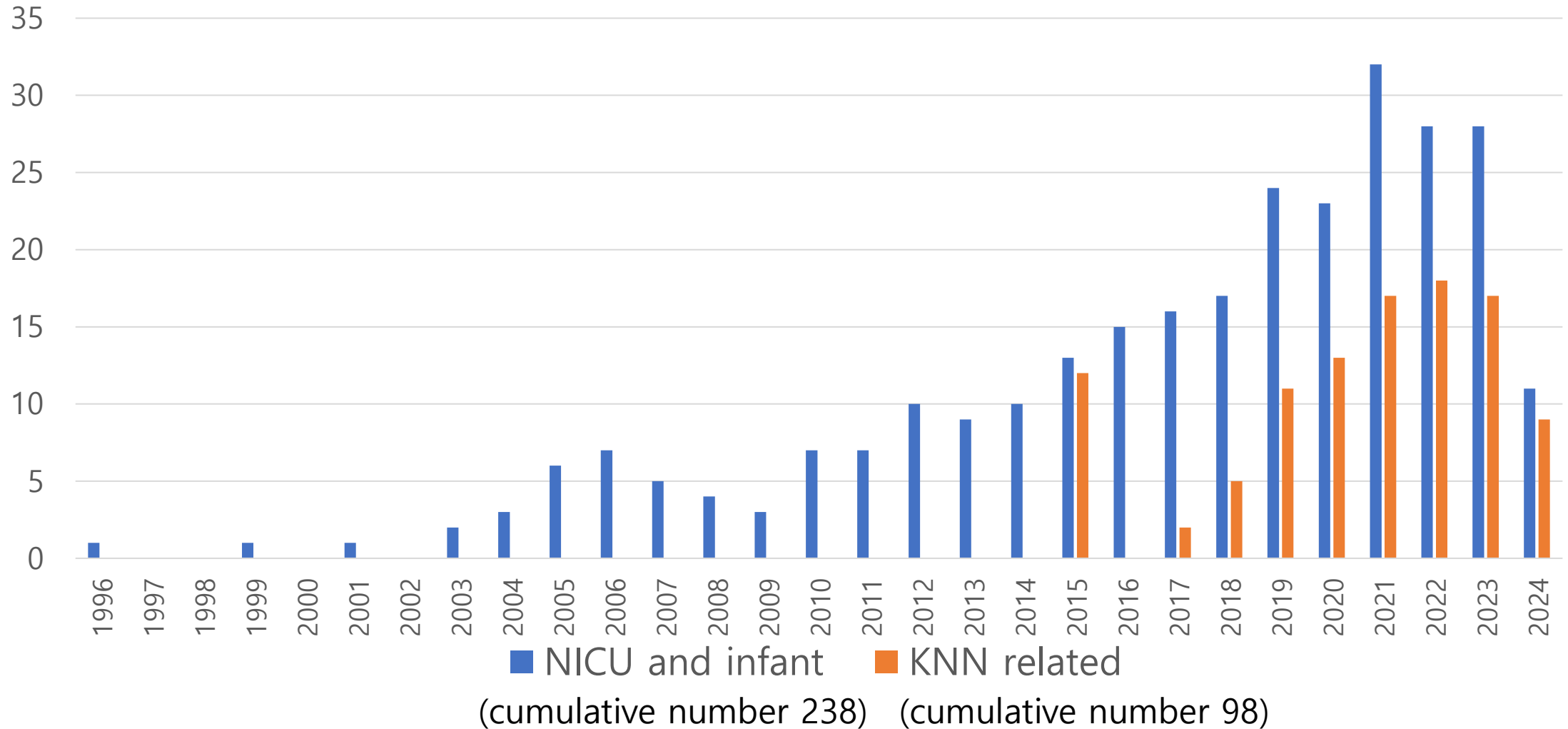


Decreasing incidence of major morbidity outcomes

Conclusions

The results show significant improvements in survival, particularly for infants born at <28 weeks, though further advancements are needed for those born before 24 weeks.

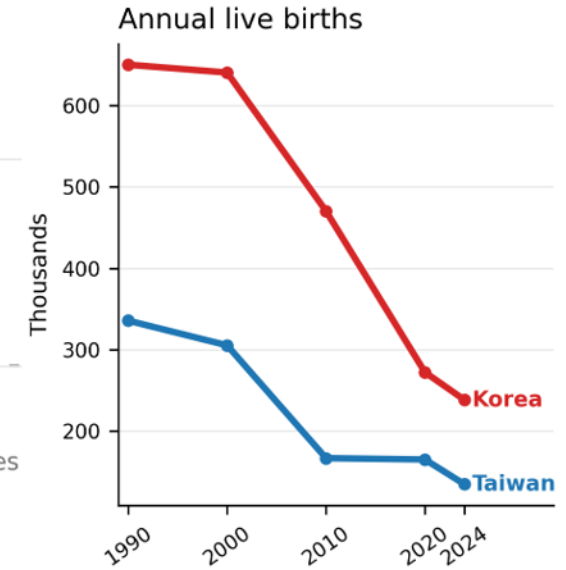
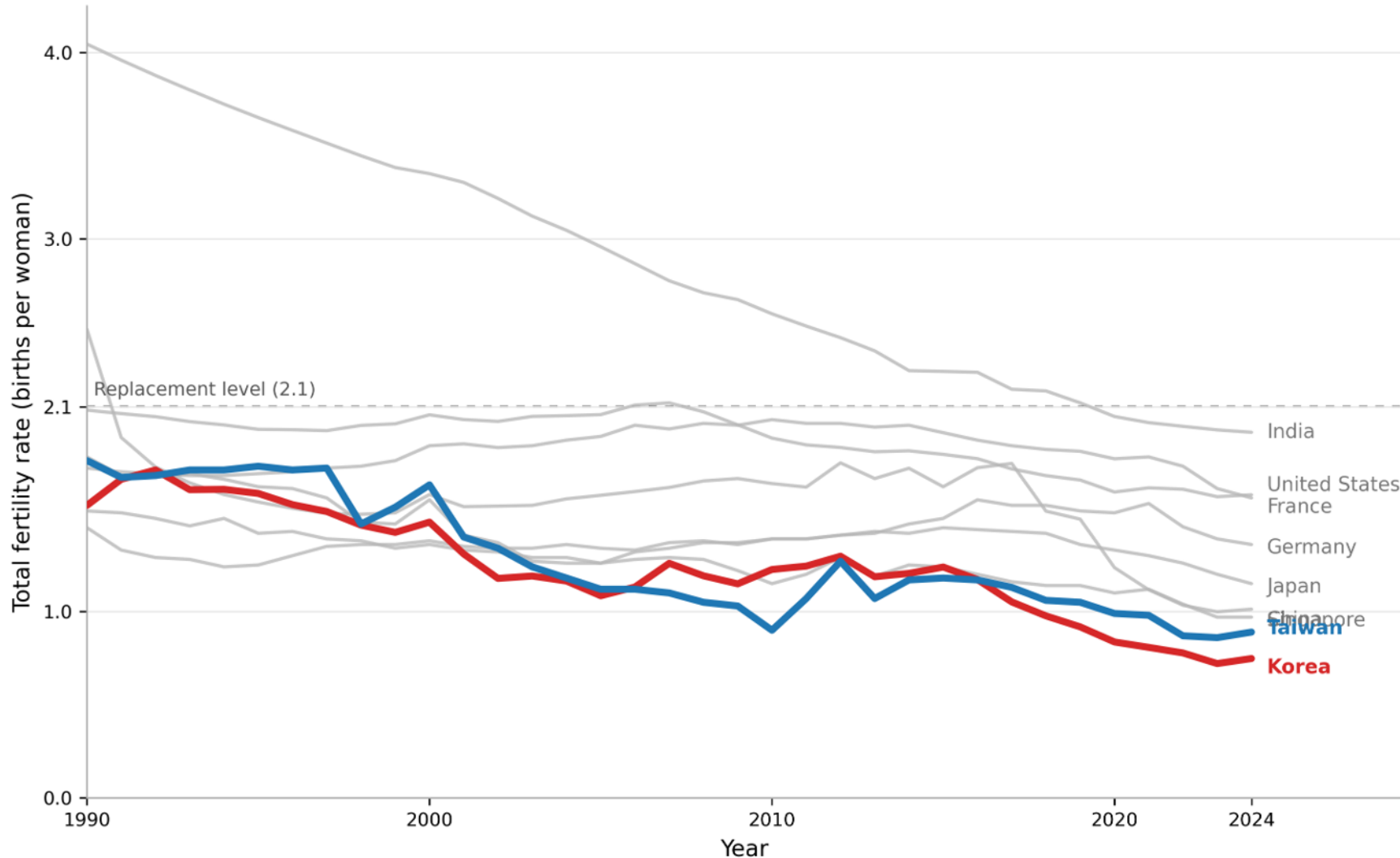
KNN facilitates and enhances research output



How Korea Improved Neonatal Survival: A Multi-Level Interpretation

Level	Items
Macro structural context	Rapid economic growth over the past three decades
	Expansion of national health insurance coverage
	Increased public investment in maternal and neonatal health
Within-country inequality	Early concentration of NICU resources in major metropolitan areas
	Limited access to advanced neonatal care in regional hospitals
	Recognition of regional disparities in neonatal outcomes
Policy response	National NICU expansion program initiated by the government (since 2008)
	Targeted support for regional neonatal intensive care units
	Policy aimed at reducing regional disparities in neonatal care
Health system capacity	Expansion of NICU beds and neonatal workforce
	Increased investment in NICUs driven by higher reimbursement rates
	Establishment of the Korean Neonatal Network (KNN) for nationwide data sharing and quality improvement
Clinical outcomes	Significant decline in neonatal mortality
	Improved survival of very-low-birth-weight infants
	Continuous improvement in neonatal research quality

Three decades of fertility decline: a global challenge

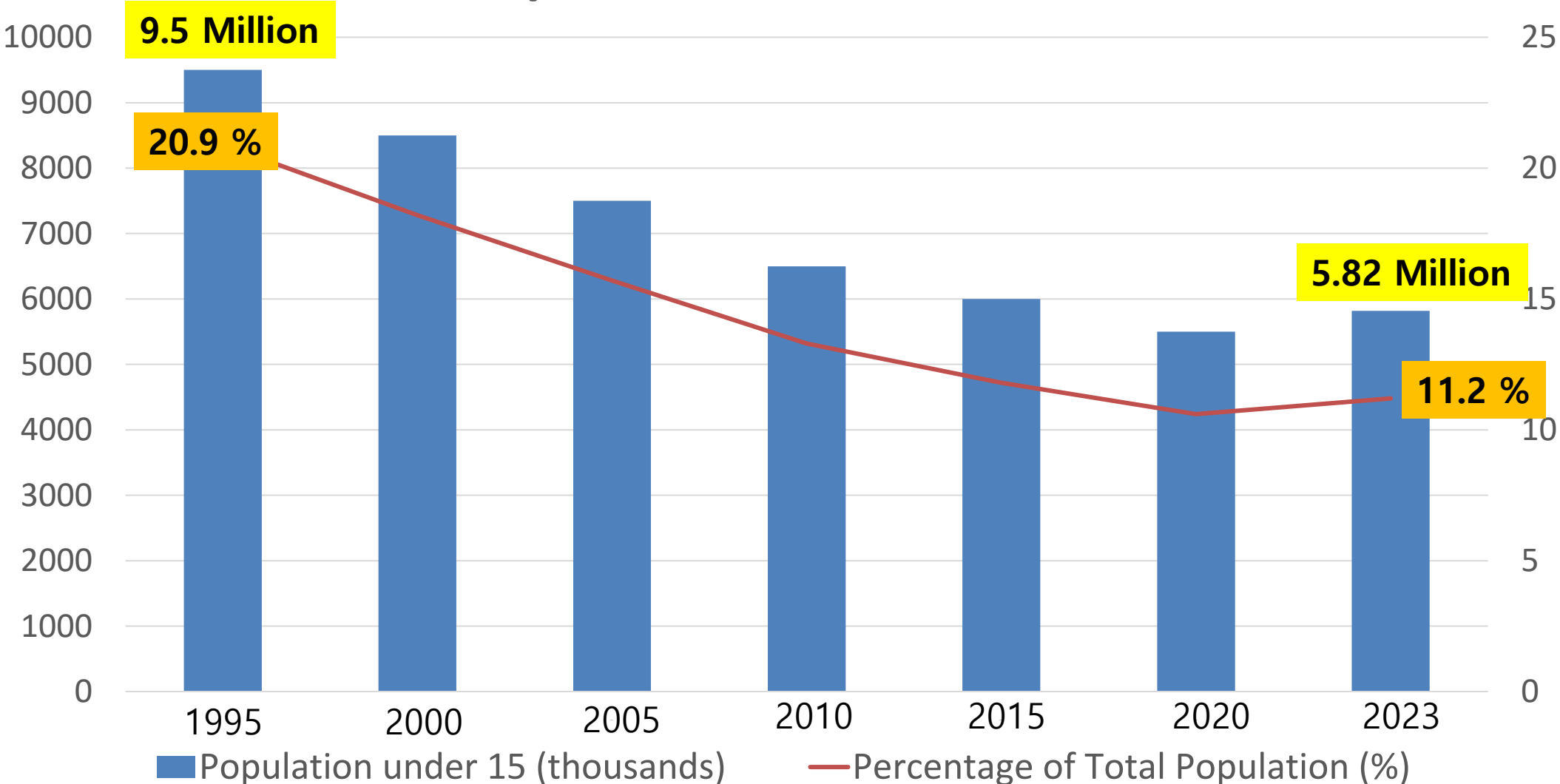


Fertility decline is global, but East Asia represents its most extreme form.

Lowest Total Fertility Rates in the World (2024)

Rank	Country/Region	TFR
1	Macau	0.68
2	Hong Kong	0.73
3	South Korea	0.73
4	Taiwan	1.11
5	Singapore	1.17
6	Ukraine	1.22
7	Italy	1.26
8	Puerto Rico	1.26
9	Moldova	1.26
10	Spain	1.30

Population under 15 year and % of total Population in South Korea



Percentage of Population Under Age 15 in OECD Countries (2023)

Country	% of Population Under Age 15
Israel	28.0
Mexico	27.8
Turkey	26.6
United States	18.5
France	18.1
United Kingdom	17.9
Spain	14.1
Japan	13.5
South Korea	11.2



Source: OECD and national statistics, 2023

Causes of South Korea's Extremely Low Birth Rate

1. Economic Factors

- High cost of living, housing, and childcare
- Financial insecurity among younger generations

2. Societal and Cultural Factors

- Increased emphasis on career advancement over family
- Changing values and attitudes towards marriage and parenthood

3. Work-Life Balance Issues

- Long working hours and high workplace stress
- Insufficient support for maternity and parental leave

4. Educational Pressure

- High competition and expenses related to children's education
- Burden of private education costs

5. Demographic Changes

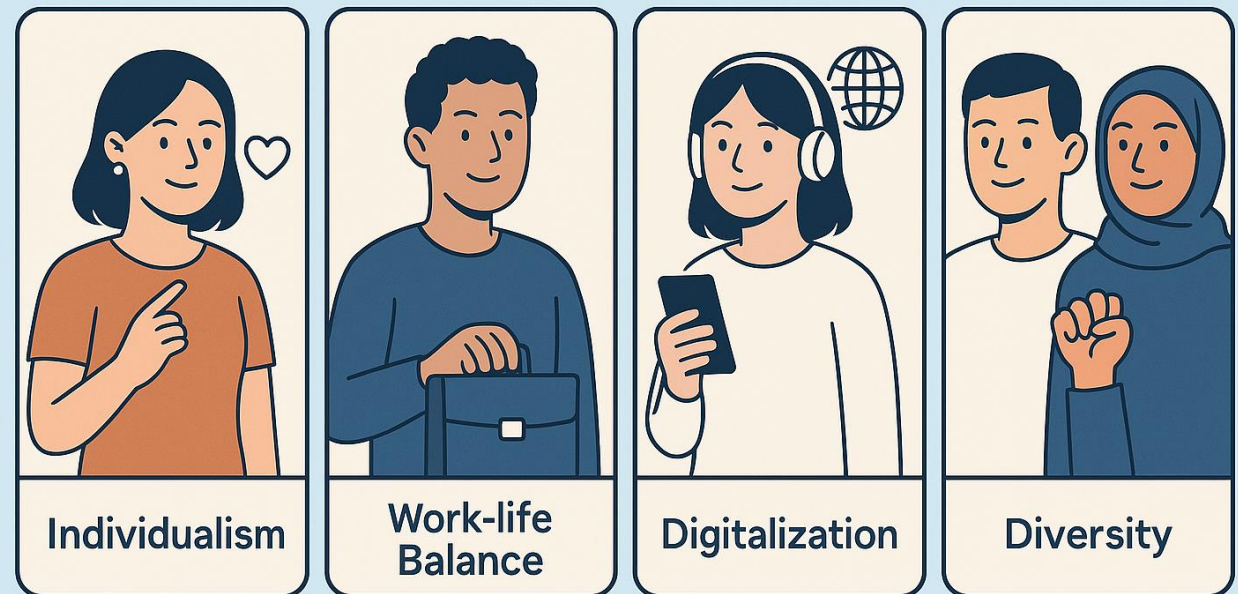
- Delayed marriage and childbirth
- Rising proportion of single-person households

MZ generation

The MZ Generation is a term commonly used in South Korea to refer to Millennials (born approximately 1981–1996) and Generation Z (born approximately 1997–2012) as a single group.

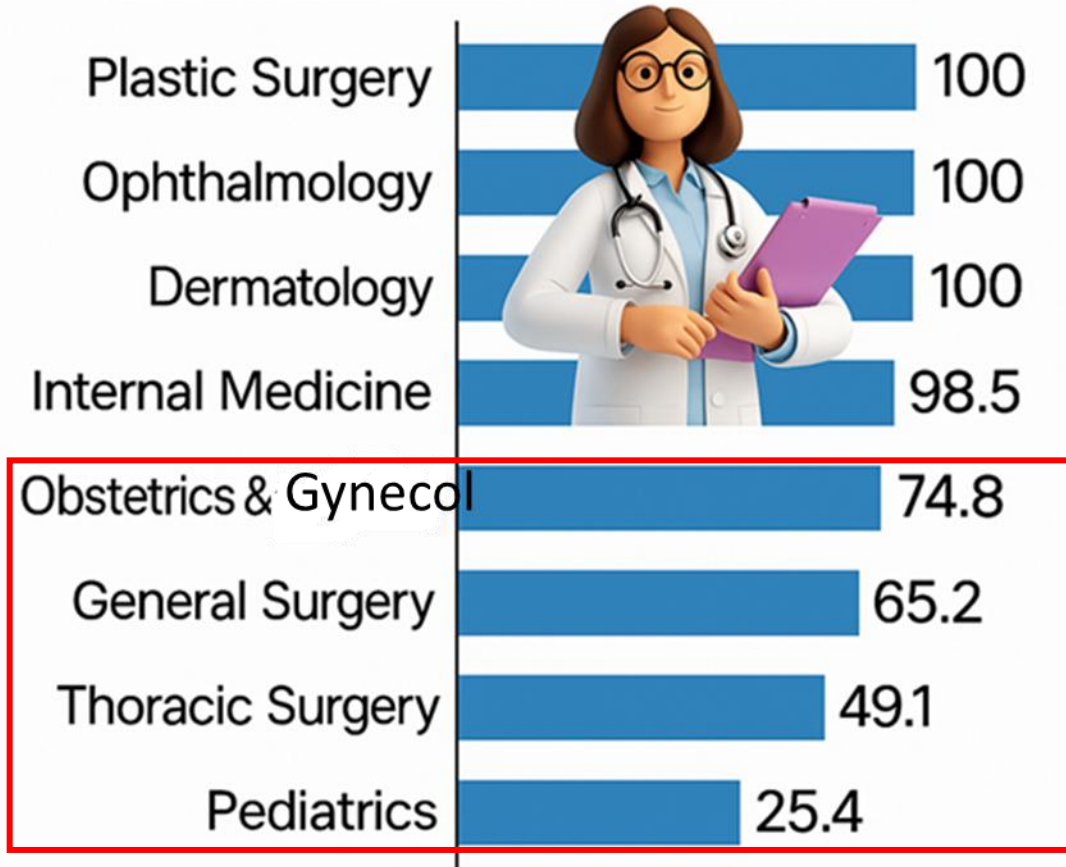
- Strong digital literacy and heavy use of online platforms
- **Emphasis on individuality, diversity, and self-expression**
- **Skepticism toward authority and traditional institutions**
- **Prioritization of work-life balance and personal fulfillment**
- Consumer behavior influenced by values and social awareness

Values of MZ Generation



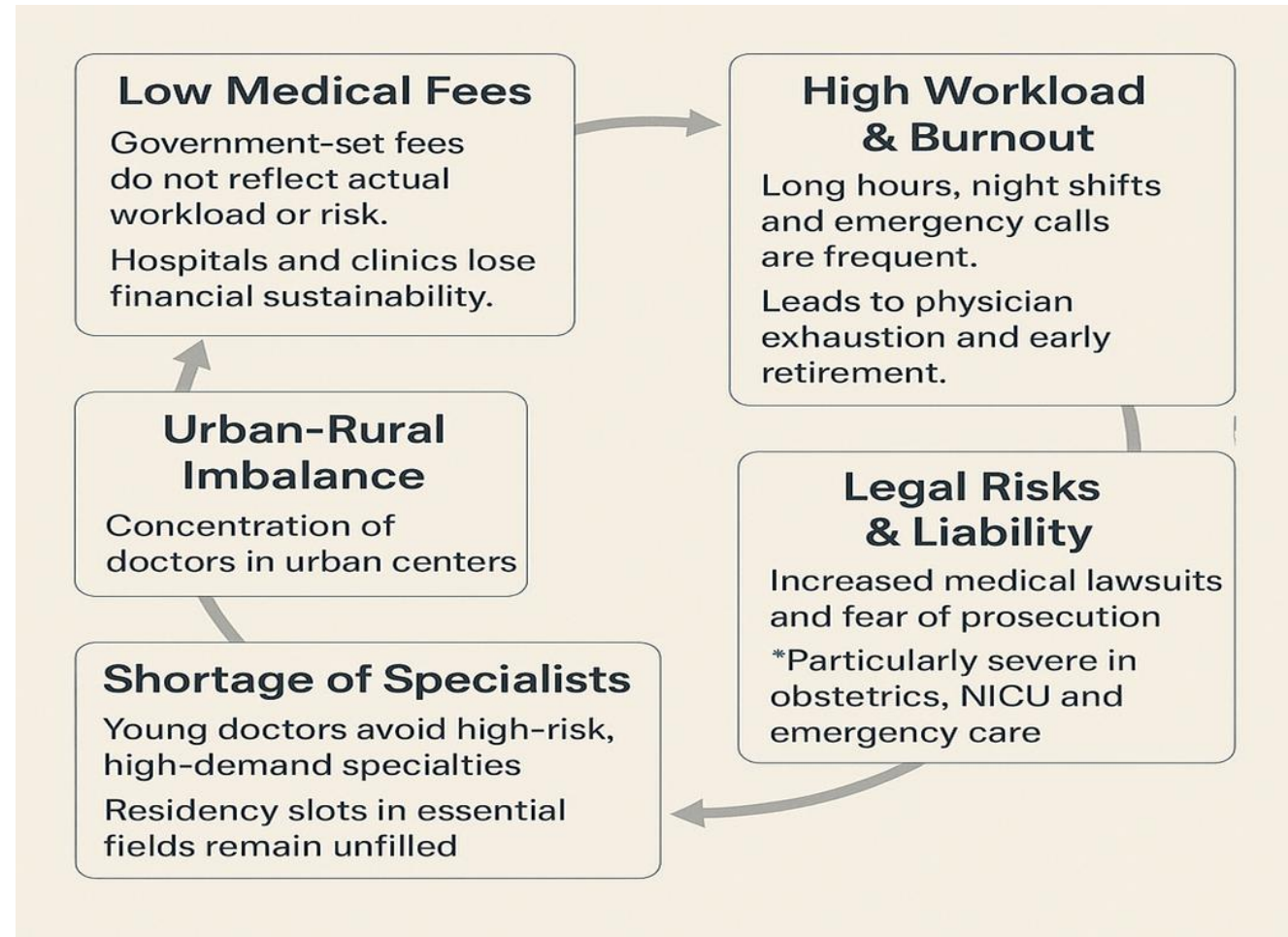
Crisis of Essential Medical Services in South Korea

Residents Fill Rate by Specialty(2023)

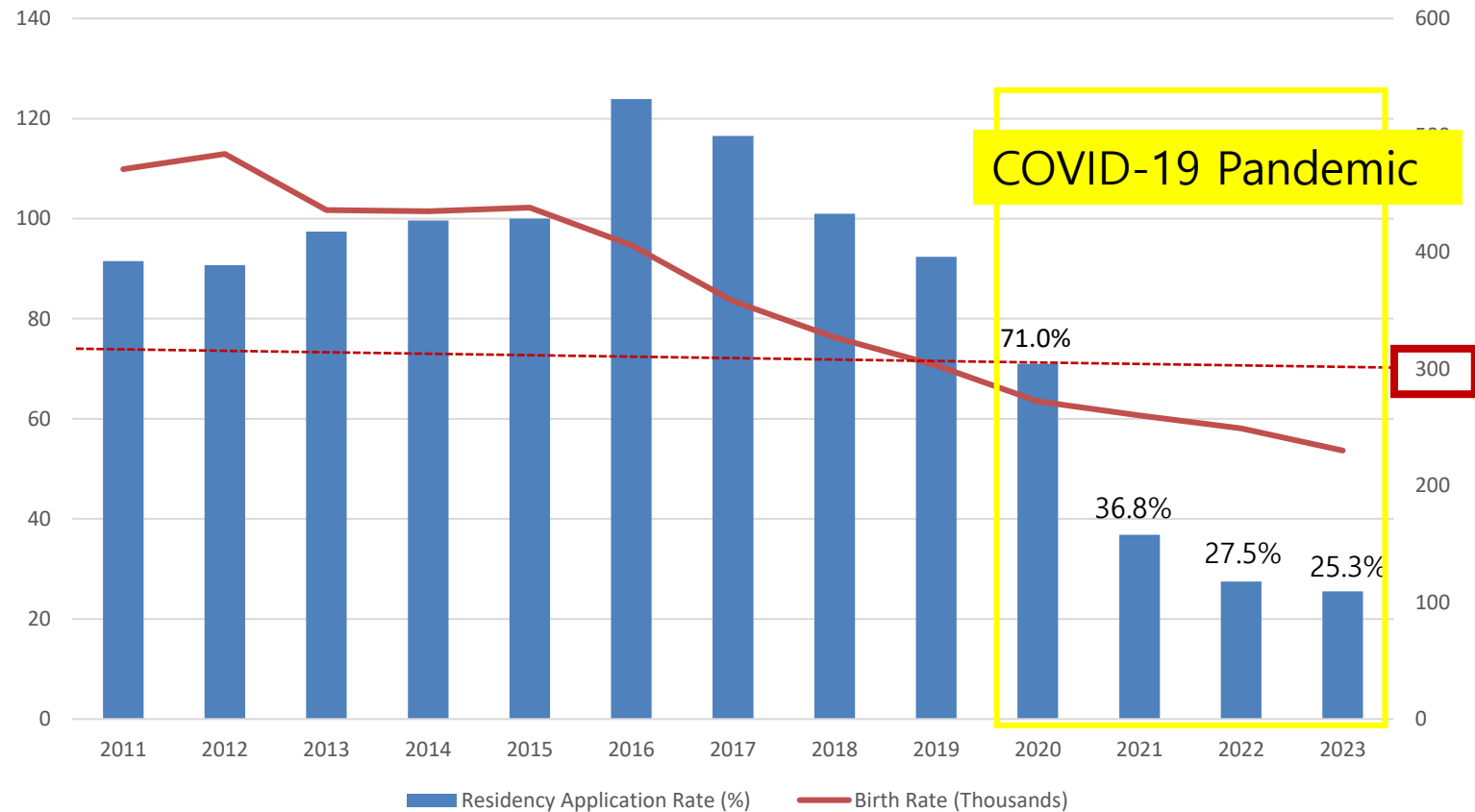


Extremely Low Birth Rates

Causes of Crisis in Essential Medical Services



Application Rates in Pediatric Residency Program and Annual Number of Births in Korea



*The annual quota for residents in Pediatrics is approximately 200

Current Challenges in Korean Neonatal Care (After COVID-19 pandemic)

1. Workforce Crisis

- Declining number of pediatric residents
- Aging neonatal workforce
- Increasing burnout among neonatologists
- Difficulty maintaining 24-hour coverage

2. Regional Disparities in Access to Care

- NICUs are increasingly concentrated in metropolitan areas
- Shortage of neonatologists and pediatric residents in provincial regions
- Closure or downsizing of delivery units and NICUs in rural areas
- Longer maternal and neonatal transfer distances

3. Financial Sustainability

- Rapid decline in birth volume
- Reduced patient numbers despite fixed infrastructure costs
- Financial vulnerability of regional NICU

The collapse is not just due to fewer newborn babies, but also systemic issues in work conditions, compensation, and policy.

Policy proposal : Transitioning from static Capacity-Based Support to high-impact Acuity-Based Reimbursement for premium neonatal care

The Traditional Approach

Focus Area: Structural Capacity

- **Physical Bed Counts:** Funding and support tied strictly to the baseline number of NICU beds.
- **Facility Requirements:** Evaluation based entirely on meeting basic spatial design parameters.
- **Equipment Standards:** Static quotas for essential medical hardware like incubators.
- **Staffing Requirements:** Fixed structural ratios irrespective of localized patient vulnerability.

The Catalyst for Change

A necessary transition away from rigid structural inputs and toward a dynamic care reimbursement framework based purely on neonatal complexity.



Current System Challenges

Unrecognized Complexity

High-complexity NICUs receive extremely limited recognition for caring for the sickest infants. Flat bed-based structures fail to reflect actual clinical demands.

Disproportionate Burdens

Regional referral centers bear a highly disproportionate clinical and financial load. Without complexity recognition, incentives to sustain regionalization remain critically weak.

Three Pillars of Strategic Reform



1. High-Complexity Care

Reimbursement structured explicitly around high-risk elements:

- ELBW & Severe prematurity
- Therapeutic Hypothermia & iNO
- ECMO & Complex neonatal surgery



2. Strengthening Referrals

Fostering systemic integration across institutions:

- Risk-adjusted transfer workflows
- Optimized clinical criteria matching
- Coordinated perinatal network support

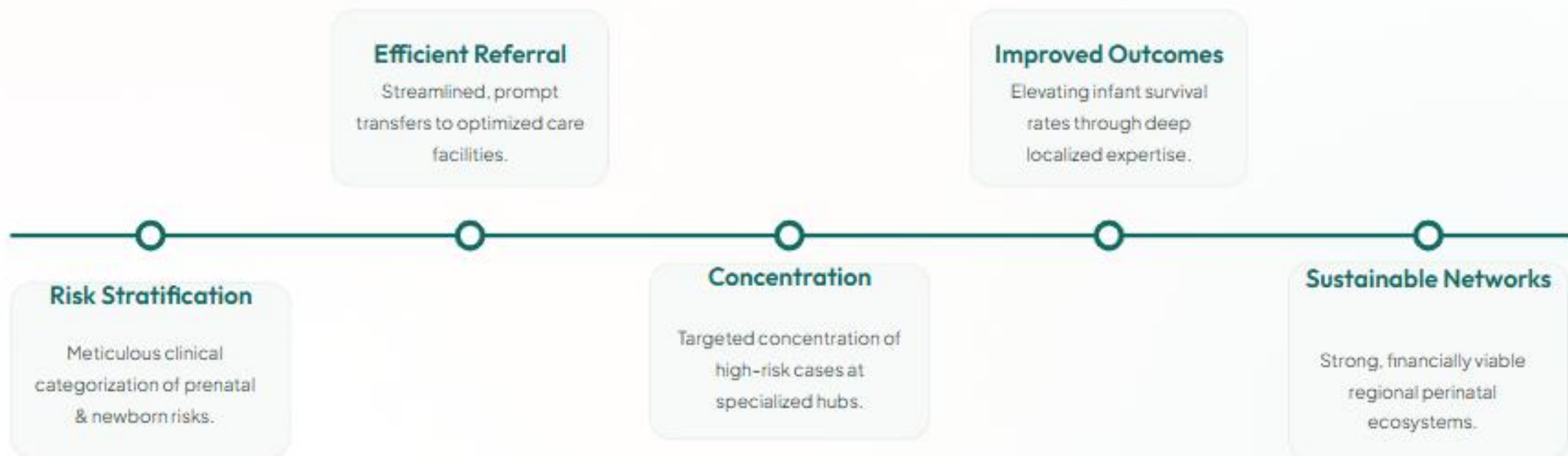


3. Resource Allocation

Aligning capacity directly to clinical competencies:

- Local NICUs handle routine risks
- Regional centers focus on high-acuity cases
- Maximized regional specialized assets

Long-Term Goal: Sustainable Care Delivery



The Future of Neonatal Care in Korea

- Compensating True Workload
- This dynamic shift aligns hospitals' economic incentives directly with real-time patient needs and critical case urgency.
- By rewarding the management of clinical complexity rather than physical bed infrastructure, Korean neonatal policy promotes better ICU resource allocation and enhances survivability metrics for high-risk neonates.

$$\text{Reimbursement}_{\text{Acuity}} \propto \sum \text{Clinical Complexity}$$

Journey of Korean Neonatal Care Policy (2005–2026+)

Korea's neonatal care landscape is transitioning from “quantitative physical infrastructure” to targeted “clinical quality registries, geographical equity, and specialized acuity-based reimbursement models”



2005–2014 | **PHASE 1 Building Physical Capacity**
Expanded nationwide NICU beds, ventilators, and clinical facilities to solve infant bed shortages.

2013–2020 | **PHASE 2 Establishing Quality Systems**
Launched the Korean Neonatal Network (KNN) national registry to benchmark multicenter outcomes.

2019–2023 | **PHASE 3 Addressing Regional Inequity**
Identified that 25% of regions lacked clinical access; designated PMCSAs to close survival gaps.

2024–Pres. | **PHASE 4 Essential Healthcare Reform**
Prioritized neonatal specialist retention and network survival amidst low fertility birth volumes.

Proposed | **PHASE 5 Acuity-Based Reimbursement**
Transitioning metrics from bed numbers to actual clinical complexity factors (ELBW, ECMO, surgery).

Key Message:

Toward Sustainable Neonatal Care Systems

Korea's neonatal care is transitioning past a quantitative physical expansion phase. It enters a new era balancing clinical acuity-based compensation with regional network resilience to sustainably manage high-risk, complex cases.

"Success is not final, failure is not fatal: it is the courage to continue that counts."

- Winston Churchill



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CREATE CHANGE

No-fault compensation for injury in New Zealand

Professor Katharine Wallis

Head, Mayne Academy of General Practice & Head, General Practice Clinical Unit
The University of Queensland, Medical School, Brisbane, Australia

International Symposium, 10th Anniversary of Taiwan's Childbirth Accident
Relief program, Foundation for Women's Health and Urogynecology of Taiwan
2026 July 5-6th Taipei, Taiwan

New Zealand's no-fault compensation scheme

- 1974: History and guiding principles
- 1992: Medical injury
- 2005: Treatment injury
 - Neonatal injury
- 2022: Maternal injury
- Implications for practice



New Zealand



New Zealand - Taiwan



1974: New Zealand's no-fault compensation scheme

History & guiding principles

Inquiry into methods for compensation for accidents “suffered by persons in employment”.

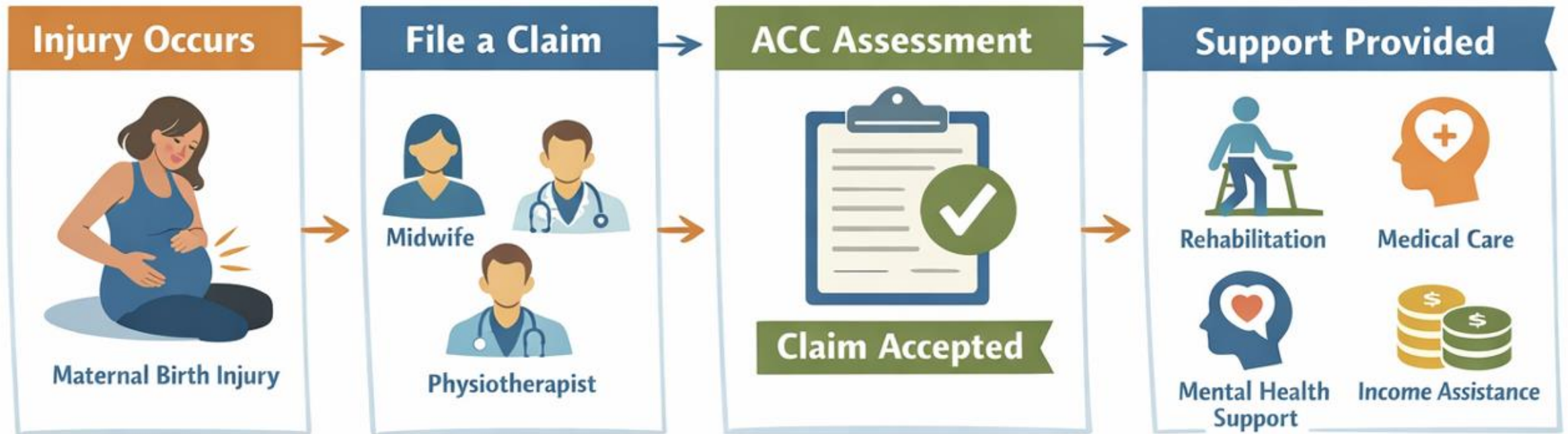
The Inquiry found that the combined Common law damages action, Workers’ Compensation legislation, and the Social Security Act were an *inadequate response* to the increasing problem of workers suffering injury in accidents largely unavoidable in a modern industrialised society.

- 1974: New Zealand’s radical no-fault accident compensation scheme introduced
- Founding principles:
 - Community responsibility
 - Comprehensive entitlement
 - Complete rehabilitation
 - Real compensation
 - Administrative efficiency

Treatment not litigation / Rehabilitation not blame

- Aim: *To minimize the incidence and impact of injury*
- Scheme provides state-funded, comprehensive compensation for all personal injuries caused by accidents regardless of fault
- To support restoration for injury
 - Assistance with the cost of treatment and rehabilitation, including doctor's visits, surgical operations, and rehabilitative physiotherapy.
- Universal coverage for residents and visitors
- In exchange, suing for compensatory damages is barred.

How it works in practice



No-Fault Compensation | Treatment, Not Litigation

Compensation cover includes

Instead of suing for damages, injured patients receive funded treatment, rehabilitation, and—when applicable—income support.

- Assessment and diagnosis
- Specialist consultations
- Physiotherapy and pelvic health rehabilitation
- Mental health support when linked to a covered physical injury
- Surgical intervention when required
- Income support if the injury affects ability to work

Advantages of a no-fault compensation scheme

- Ready access to treatment and rehabilitation, avoiding lengthy adversarial legal processes.
- Universal coverage including accidents at work, home, road, or recreation, mental injuries from sexual assault, gradual process injuries in some cases
- Lower administrative costs (around 10%, vs 50-60% in litigation-based systems)
- Community-funded and affordable, funded through levies on employers, employees, vehicle owners, and general taxation, spreading risk across society.
- Role in injury prevention, with ACC investing in public health and injury-prevention campaign to reduce long-term societal burden.

Disadvantages of the no-fault scheme

- Rising costs & slower rehabilitation rates
- Some still miss out – gradual process injuries, non-listed maternal birth injuries, fetal injuries
- Limited ability to sue for higher payouts even when there is negligence
- Inconsistencies, difficult to navigate

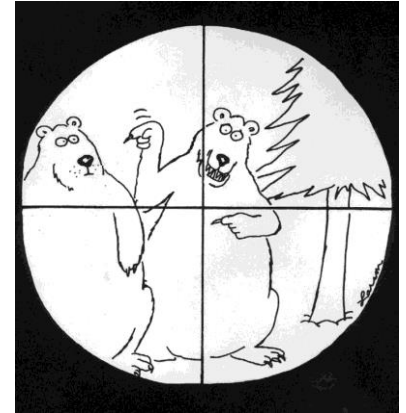


1992: Medical injury defined to curb costs

Medical injury has always been covered under the scheme

1992 Medical injury defined to curb perceived spiralling costs

- Compensable medical injury defined as medical misadventure:
 - Medical mishap “rare and severe” adverse event or
 - “Medical error” (in effect negligence)
 - Report medical error to Medical Council
- Decreased the cost of medical injury compensation
- Unfairly restricted access to compensation for those injured by medical treatment vs other cause.
- Introduced fault (medical error) into the otherwise no-fault scheme
 - Discouraged some practitioners and patients from participating in the compensation claims process.
 - Delayed access to compensation for injured patients when practitioners contested findings of ‘medical error’.





2005: Medical injury redefined as treatment injury, to remove fault

2005 Medical injury redefined as treatment injury

“personal **injury** ... suffered by a person seeking treatment ... or receiving treatment ... and **caused by treatment**; and not a necessary part, or ordinary consequence, of the treatment, taking into account all the circumstances of the treatment including the person’s underlying health condition ... and ... the clinical knowledge at the time of the treatment” (s.32)

2005 Medical injury redefined as treatment injury

- All ‘injuries caused by treatment’
 - Report “risk of harm to the public” to the “authorities responsible for patient safety”.
-
- Expanded eligibility: New Zealand’s Accident Compensation scheme some of the most liberal medical injury eligibility criteria in the world.
 - Improved information flows within the system: Shifted the focus away from identifying error, or proving fault, towards providing assistance with treatment and rehabilitation, as the scheme was originally intended.

Covered

- Infection, cellulitis or septic arthritis following a vaccination or surgery
- Harm from delay in diagnosis or treatment.
- Harm from malfunctioning medical devices
- Harm from treatment performed without informed consent.

Not covered

- Ordinary or expected consequences of treatment such as pain, fatigue,
- Necessary part of treatment, scarring after surgery
- Injuries caused by underlying health conditions
- Surgery that does not improve symptoms
- Old prosthetic failing due to age
- General illnesses not caused by treatment e.g., appendicitis, sunburn, age-related arthritis.

Treatment injuries: What is and is not covered

Condition	Covered?	Why?
Cellulitis after vaccination	✓ Yes	Not an ordinary consequence; caused by treatment.
Pain and swelling after vaccination	✗ No	Ordinary, expected consequence.
Injury from delayed diagnosis where outcome would change	✓ Yes	Harm caused by failure to treat.
Surgery that doesn't improve symptoms	✗ No	Not a new injury; just an undesired result.
Injury from equipment malfunction	✓ Yes	Caused by treatment process.
Harm due to hospital understaffing	✗ No	Resource allocation exclusion.

Neonatal injury

Neonatal injury is covered under the scheme if the injury meets the criteria for a 'treatment injury', where there is a clear link between the treatment (or a failure to provide treatment) and the injury, and the injury is not a "necessary part" or "ordinary consequence" of the treatment.

The scheme does not cover conditions caused by natural processes, such as congenital abnormalities or genetic disorders.

Neonatal injury - what is covered

Fetal or neonatal injuries can be covered if they meet the criteria for a treatment injury:

- Born alive and viable, and
- Injury caused by treatment, not by natural birth forces, or
- Injury occurred in utero due to an accident to the birthing parent.

Examples:

1. Hypoxic-Ischemic Encephalopathy (HIE) caused by delayed or inadequate clinical response: for example, if practitioner fails to respond appropriately to abnormal fetal heart rate tracings, leading to preventable oxygen deprivation and brain injury (classic treatment injury).
2. Physical trauma (skull fracture, facial nerve palsy, brachial plexus injury) caused by mismanagement such as misapplied instruments/ incorrect use of forceps or vacuum extraction, not by birth forces
3. Injuries caused by medication or procedural errors affecting the fetus, for example incorrect medication given to the birthing parent that crosses the placenta and injures the fetus, or misplaced fetal scalp electrode causing lacerations, infection transmitted due to improper sterile technique.

Neonatal conditions - *not* covered

The scheme does not cover conditions caused by natural processes, such as congenital abnormalities or genetic disorders, stillborn, or born alive but not viable.

ACC does **not** cover:

1. Injuries or death due to natural causes
 - Placental insufficiency, cord accidents (e.g., true knot, cord prolapse not caused by treatment), spontaneous in-utero stroke.
2. Injuries caused by normal birth forces
 - Shoulder dystocia–related brachial plexus injury (unless caused by mismanagement), cephalohematoma from normal pressure during labour, minor bruising or swelling from passage through the birth canal.
3. Congenital conditions not caused by treatment
 - Genetic disorders (e.g., trisomy 21), structural anomalies not caused by treatment (e.g., congenital heart defects), conditions that would not have changed pregnancy management

ACC **does** cover congenital anomalies if:

- The anomaly is a *physical injury*, it was *missed due to failure to diagnose*, and termination would have been legally available and chosen if diagnosed earlier .

Neonatal injuries: What is and is not covered

Category	Covered?	Example
HIE due to delayed clinical response	✓ Yes	Failure to act on abnormal CTG
Injury from misapplied forceps	✓ Yes	Skull fracture caused by incorrect technique
Medication error affecting fetus	✓ Yes	Wrong drug given to parent crosses placenta
Stillbirth	✗ No	Stillborn infants are not eligible
Natural in-utero events	✗ No	Placental insufficiency, cord accidents
Normal birth-force injuries	✗ No	Cephalohematoma, uncomplicated brachial plexus stretch
Congenital anomalies not caused by treatment	✗ No	Genetic or structural conditions



2022: Maternal injury included

2022 Maternal injury

Accident Compensation (Maternal Birth Injury and Other Matters) Amendment Act 2022

- The definition of ‘accident’ was expanded to include “*an application of a force or resistance internal to the human body at any time from the onset of labour to the completion of delivery*”
- Compensation extended to maternal birth injuries, or “accidents”, caused by internal forces during labour and birth including internal and external trauma sustained during childbirth, such as perineal tears and uterine prolapse

Maternal injury

The inclusion of maternal birth injuries acknowledges the physical and psychological impact of childbirth.

ACC can fund mental health support when a covered physical injury leads to mental distress, including post traumatic stress disorder.

Maternal injury - what is covered

1. Obstetric anal sphincter injuries or other tears:
 - Tears to the perineum, labia, vagina, vulva, clitoris, cervix, rectum, anus, or urethra
2. Uterine or pelvic structural injuries:
 - Ruptured uterus during labour, anterior/posterior wall prolapse or uterine prolapse, post-partum uterine inversion, obstetric fistula
3. Fractures or nerve injuries caused by birth:
 - Coccyx fracture or dislocation, pubic ramus fracture, pudendal neuropathy

Maternal conditions - *not* covered

Not all childbirth-related injuries are covered.

1. Injuries from necessary surgical incisions (e.g., episiotomy, caesarean section – although if complications arise maybe covered as a treatment injury)
 2. Pregnancy-related conditions or illnesses:
 - morning sickness, gestational diabetes, hypertension
 3. Expected physiological changes of childbirth
 4. Injuries not on the defined list (but may be covered if meet treatment injury criteria)
 5. Injuries to the baby (may only be covered if meet treatment injury criteria)
- Clear boundaries help clinicians manage expectations.



Implications for practice

Summary

Implications for patient care

Implications for practice

For international clinicians, the ACC framework offers a compelling example of how maternity care can be supported through a national, equitable, and culturally informed injury-compensation system.

- Ensures timely access to rehabilitation and support
- Encourages transparency (about the things that go wrong)
- Removes adversarial legal processes from healthcare. Clinicians are not exposed to malpractice lawsuits, enabling a more collaborative, less defensive clinical environment and open disclosure and transparent communication to families when complications occur.

Lessons for an international audience

- ACC is a distinctive, patient-centred approach to injury support, offering an alternative to litigation-based systems
- The 2022 reforms support maternity wellbeing, acknowledging birth injuries and strengthening maternity care
 - More equitable access to compensation more efficiently
 - Novel patient safety data for learning
 - Absence of a culture of suing: More conducive to thriving of professional values and norms

By prioritising rehabilitation over litigation/blame

For patients:

- Early access to rehabilitation
- Recognition of birth trauma as legitimate and treatable
- Reduced financial burden
- Inclusion of rongoā Māori (traditional Māori healing) for culturally aligned care

For clinicians:

- Reduced medicolegal risk
- Encourages transparent communication with families

Conclusions

- *The type of society generates the type of accountability.*
- *What is possible in New Zealand may not be possible in another society*





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AUSTRALIA

CREATE CHANGE

To-siā

(toh-shee-ah)

Professor Katharine Wallis
Head, Mayne Academy of General Practice
Head, General Practice Clinical Unit

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Thank you to the

Foundation for Women's Health and Urogynecology Taiwan

CRICOS code 00025B

10th Anniversary

生產事故救濟 國際研討會

International Symposium on
the 10th Anniversary of Childbirth Accident Relief



JULY 5 2026 張榮發基金會國際會議中心

From Compensation to Prevention

Taiwan Childbirth Accident Relief System — 10 Years of Experience

Yueh-Ping Liu, M.D., L.L.M.

Director-General, Department of Medical Affairs
Ministry of Health and Welfare, Taiwan

Reporting period: 2016–2026

Presentation Outline



- 01 Background: why reform was needed**
- 02 System design: no-fault compensation and care**
- 03 Key results: timely relief and reduced disputes**
- 04 Trust and care: rebuilding relationships**
- 05 Learning and prevention: from data to practice**
- 06 Policy direction: sustain, scale, and prevent**

Executive Message

Policy arc: 2016–2026



The system works.

Now we scale prevention.

Taiwan did not only build a compensation mechanism; Taiwan built a learning system for safer childbirth.

BACKGROUND

Declining Births Raised the Stakes



Time trend: 2000 → 2016 → 2023

305,312

2000
births / year



181,601

2016
births / year



166,886

2023
births / year

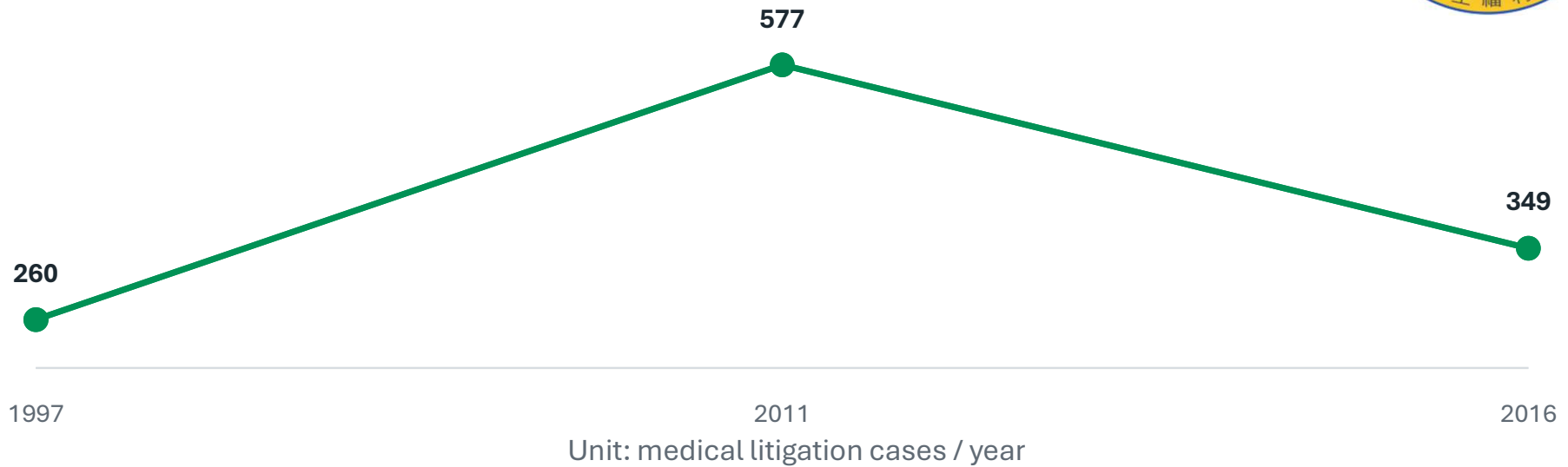
In a low-fertility society, every safe birth matters more.

BACKGROUND

Rising Litigation Before Reform



Trend: 1997 → 2011 → 2016



Rising disputes created pressure for both families and healthcare providers.

System Pressure Declined After Reform



Before vs after reform

5.22 → 1.98

1999–2011 → 2017–2022

litigation rate / 100,000 births

54% → 94%

2010 → 2023

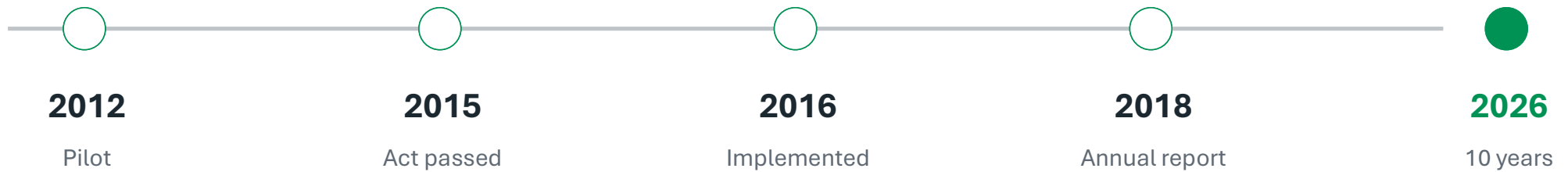
OB/GYN recruitment rate (%)

Reduced system pressure can support both dispute resolution and workforce confidence.

From Pilot to National Law



Policy timeline: 2012–2026



A pilot experience became a national system.

No-Fault as Policy Innovation



Implemented since 2016

Support families

Reduce disputes

Improve safety

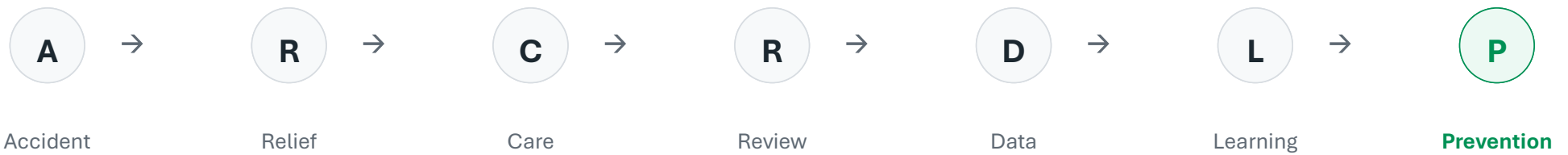
Legal protection for apology and communication

Reporting + review + feedback

Taiwan Model



Operational cycle since 2016



Accidents become data. Data becomes learning. Learning becomes prevention.

KEY RESULTS

Timely Relief Builds Trust

2016–2025 average

87.5

Average processing time
days from application to payment



Timely relief reduces uncertainty for families.

KEY RESULTS

The System Reached Families

Cumulative results: 2016–2025



2,532

approved
cases

91.7%

approval
rate (%)

NTD 1.6B

relief paid
New Taiwan dollars

The system is accessible, active, and meaningful at scale.

KEY RESULTS

Two Policy Signals

Cumulative distribution: 2016–2025

47%

largest share of approved cases
fetal death cases / total approved cases

37.1%

largest share of compensation
maternal death payments / total relief amount



High-frequency and high-impact events require different strategies.

Workforce Recovered



Trend: 2010 → 2023

54% → 94%

OB/GYN recruitment improved after implementation.

Unit: recruitment rate (%)

Reducing pressure restores confidence

Care Builds Trust



Care activities after implementation: since 2016



Compensation reduces pressure. Care rebuilds trust.

Families Felt Supported



Latest survey results

83.4%

reported improved relationship
respondents (%)

93.1%

felt compensation helped
respondents (%)

Trust is built through both speed and care.

Every Case Became Data



Cumulative reporting: 2016–2025

9,353

incident reports

reported cases

281

medical institutions

institutions

Reporting is the bridge from compensation to prevention.

Data Became System Learning



Learning outputs: 2016–2025

24

structured learning

cases

61

improved through guidance

institutions

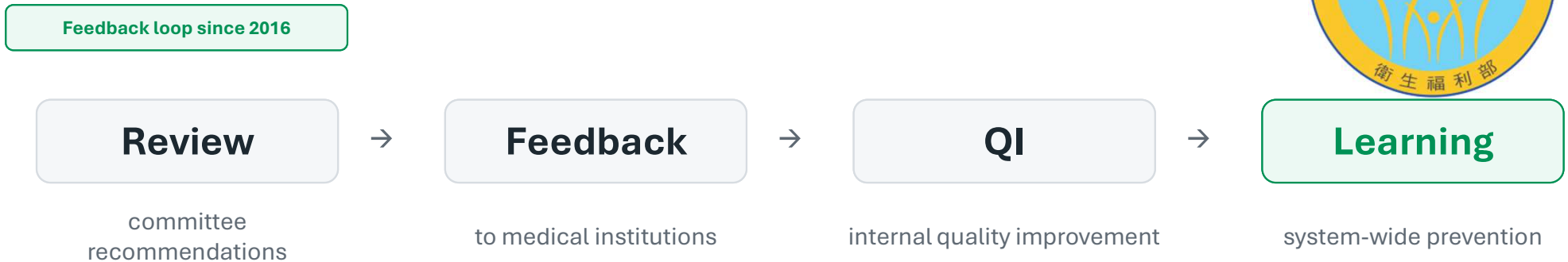
14

maternal death analyses

cases

The value is not only how many cases were paid, but how many lessons were generated.

From Relief to Prevention



Case review becomes feedback; feedback becomes system learning.

Learning Became Prevention Tools



Recent clinical translation

PPH Bundle Care

Preeclampsia Bundle Care



Prevention begins when lessons change clinical practice.

Cross-Sector Collaboration



Ongoing collaboration: 2016–2026



Academic symposium



Clinical guidelines

台灣婦產科醫學會建議劑isoprostatol(Cytotec®)產科使用指南^{1,2,3} 2008.01.20 公布

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Policy promotion



Health education

Prevention requires government, professional societies, and clinical teams working together.

What Still Needs Attention



Next stage: 2026 onward

Care perception gap

High-risk referral readiness

Data-to-practice feedback

Workforce and low-fertility resilience

Three Policy Directions

Next-decade direction: 2026–2030



- 1 Sustain the no-fault relief mechanism**
- 2 Institutionalize case-to-learning feedback**
- 3 Scale prevention bundles and referral readiness**

CLOSING

From Relief to Prevention

Ten-year learning journey: 2016–2026



The next chapter is prevention.

Policy direction after 2026



Sustain the system.

Scale the learning.

Prevent the next harm.

From relieving harm to preventing harm.

台灣產科醫療安全 政策:現況、挑戰與 展望

講師：詹德富教授
高雄醫學大學附設醫院
醫品病安管理中心主任 產科主任
周產期醫學會 第18屆理事長

雙重夾擊下的生育挑戰

現況：高齡與少子化的壓力

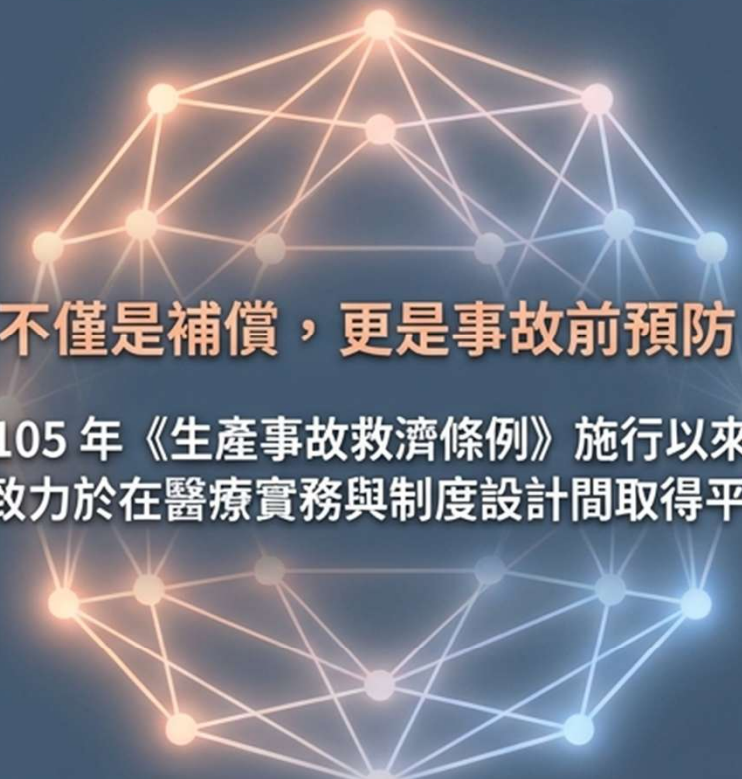
高齡化

生育型態巨變：高齡孕產婦比例攀升，超過40歲以上產婦的併發症與死亡風險顯著提高。

少子化

少子化危機：每一個新生命的孕育與誕生，都承載著家庭與國家極大的期盼與壓力。

制度承諾：從補償到預防



「不僅是補償，更是事故前預防。」

自105年《生產事故救濟條例》施行以來，我們致力於在醫療實務與制度設計間取得平衡。

目標：從審議與回饋中檢討，優化臨床流程，將事故經驗轉化為提升周產期照護品質的契機。

孕產婦死亡趨勢：穩定持平，但高齡風險劇增

174

件：105-113 年度累計孕產婦死亡救濟案件。

13

件：113 年度案件數（連續三年下降後，呈現穩定持平狀態）。

防護關鍵：針對 40 歲以上的高齡產婦，強化產檢內容、子癲前症及血栓預防評估，是降低死亡率的關鍵防線。

生產年齡層分布分析

死亡申請比率（發生率）
最陡峭上升的警戒區



孕產婦致命殺手診斷矩陣 (105-113年)

產後大出血 (PPH)

佔比 30.5%



高風險因子：剖腹產史、困難生產、使用 cytotec 催生。

前驅症狀：胎心音異常 (需警覺子宮破裂)、裂傷後持續出血、低血壓。

急救關鍵：盡快止血、適時正確輸血、熟練使用止血球。

血管栓塞 / 肺栓塞

佔比 19.5%



高風險因子：剖腹產孕婦、具血栓高危險因子。

趨勢：近年發生率有上升趨勢。

預防關鍵：預防性抗凝治療、醫療級彈性襪、產後儘早下床活動。

羊水栓塞 (AFE)

佔比 18.4% (113年居首位)



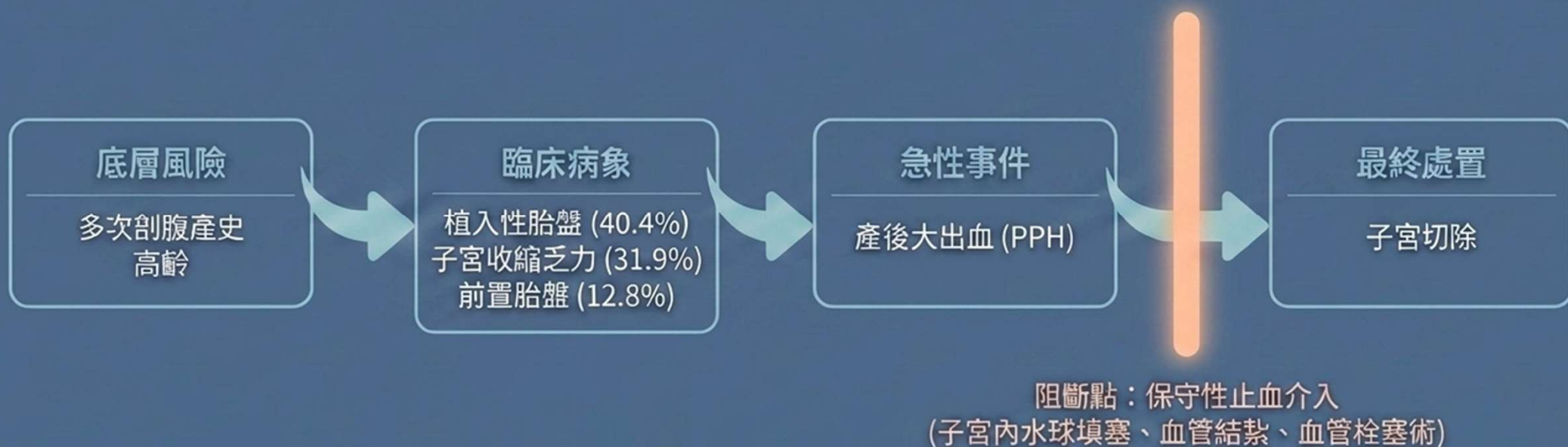
高風險因子：高齡、多胎、胎盤剝離、催生/破水/劇烈疼痛。

前驅症狀：胎兒窘迫、母體躁動、急性呼吸困難。

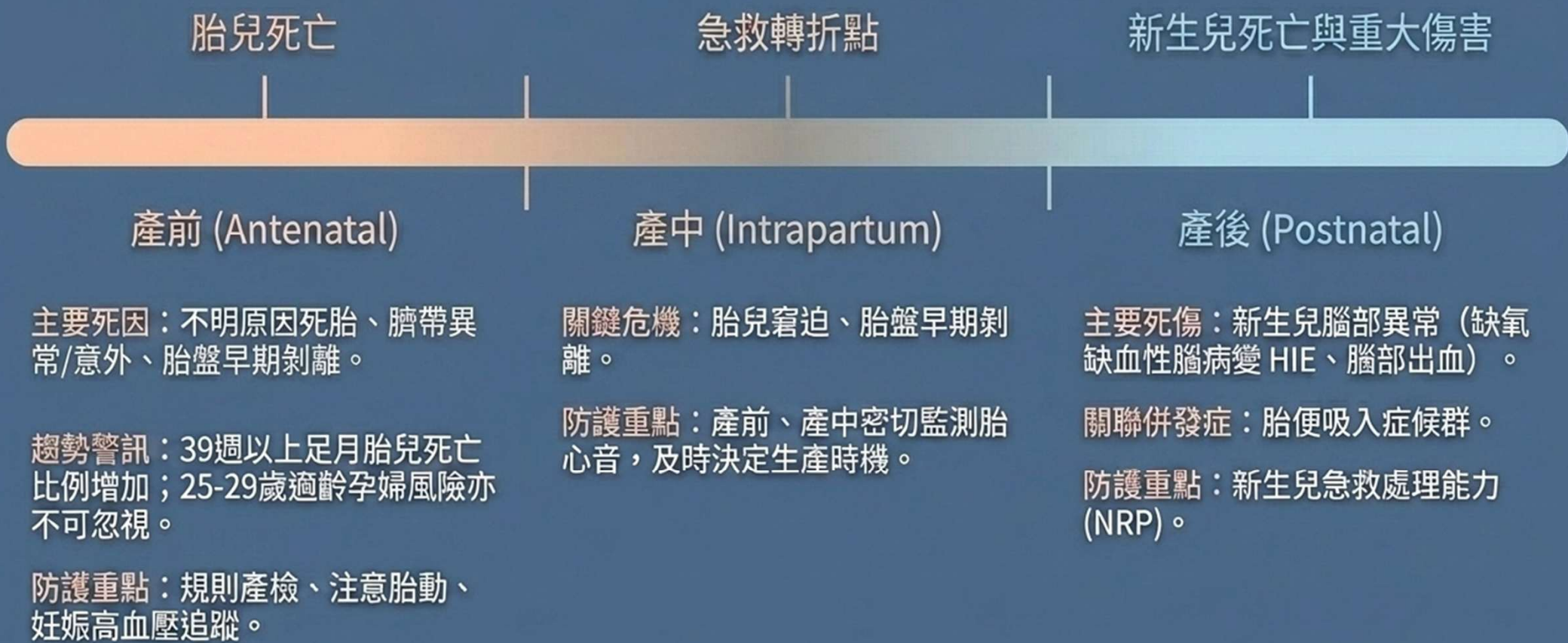
急救關鍵：突發心臟驟停處理、適時使用 ECMO (葉克膜) 並需模擬演練。

重大傷害

歷年 486 件重大傷害中，高達 442 件為子宮切除。
113 年數據顯示，97.9% 的子宮切除皆源於「產後大出血」。



微小生命的消逝：胎兒與新生兒風險時間軸



築起第一道防線：高危險妊娠的組合式照護

妊娠高血壓與子癲前症是導致孕產婦缺氧性腦病變及胎兒死亡的關鍵源頭。

核心策略：導入「妊娠高血壓及子癲前症組合式照護查檢清單（Care Bundles）」。



Checklist



1. 自我管理：

推動民眾衛教，指導孕期體重控制與血壓自我監測。



2. 基層辨識：

各層級醫療機構（診所至醫學中心）落實高危險因子早期篩檢。



3. 預防給藥：

精準評估子癲前症風險，給予預防性投藥。



4. 完整照護：

從產檢、待產監測到產後照護，提供無縫接軌的標準化處置。



構築周產期安全網：產後大出血 (PPH) 組合式照護實務指引

從早期辨識到緊急應變的四階段系統化戰略

直面挑戰：產後大出血仍是生產事故的最大威脅

關鍵洞察

高齡產婦比例上升與少子化危機，使得系統對「零事故」的要求更加嚴峻。這不僅僅是單一醫療處置的失誤，更是系統性風險控管的破口。

行動契機

單點防禦已不足夠，導入「PPH 組合式照護 (Bundle Care)」是逆轉數據的唯一關鍵。



105 ~ 113 年度孕產婦死亡審定救濟案件 (N = 174)

PPH 組合式照護：四重防護網全景圖

01 事前準備 (Readiness)

- 常規訓練、
- 裝備查檢、
- 模擬演練

02 風險辨識 (Recognition)

- 產前評估、
- 高危分流、
- 病史矩陣

03 緊急應變 (Response)

- SI 指標觸發、
- 保守性止血、
- 用藥安全

04 跨網轉診 (Network)

- 跨科整合、
- 軸輻後送、
- 基層對接

透過系統化準備，我們能接住每一位產婦。預期勝於反應，系統大於個人。

Phase 1: 第一道防線：無死角的事前準備與模擬演練

01 事前準備 (Readiness)	02
03	04

基礎硬體與 SOP



建置標準化 PPH 急救推車與組合式照護查檢清單



產房常備超音波設備 (隨時排除子宮破裂風險)



Simulation Scenarios



Phase 2: 第二道防線：高危險妊娠的精準探測與分流

01 複訪準備 (Readiness)	02 風險辨識 (Recognition)
03	04



熱區警示：
含海扶刀 (HIFU)
及熱消融手術

行動觸發器 (Action Triggers)

- 針對高危個案建立嚴密衛教與追蹤機制。
- 醫療機構必須誠實評估自身照護量能，必要時於產前即啟動預防性轉診，避免資源耗盡。

Phase 3: 第三道防線：分秒必爭的客觀指標與黃金止血

01 黃前準備 (Readiness)	02 屬情辨識 (Recognition)
03 緊急處置 (Emergency Response)	04

休克指數 (Shock Index, SI)

$$SI = \frac{\text{心跳速率}}{\text{收縮壓}}$$



黃金止血窗口

捨棄經驗法則，以 SI 數值作為啟動大量輸血與轉診的絕對依據

首要措施

裂傷後出血引發低血壓，盡快止血是唯一優先。

及早物理介入

熟練使用止血水球 (Hemostatic Balloon) 進行保守性物理壓迫。

血液支持與後援

確保適時與正確的血品輸注到位，同步呼叫跨科支援。

Phase 3 Alert：臨床紅線：催生藥物 (Cytotec) 的嚴格管控



致命的骨牌效應 (生產事故學習案例)

錯誤操作：陰道給予 1/4 顆，短短 2 小時後又由舌下密集給予 1/4 顆。



嚴重後果：引發子宮多處撕裂傷、子宮破裂及嚴重產後大出血。



安全防護鎖 (The Safety Lock)

- ✓ **指引依歸：**絕對遵守婦產科醫學會建議劑量與途徑，嚴禁過度密集給藥。
- ✓ **嚴密監控：**使用催生藥物需全程輔以胎心音異常監測。異常時立刻警覺子宮破裂風險。
- ✓ **硬體防線：**產房必須隨時備妥超音波設備待命。

Phase 4: 第四道防線：無縫接軌的區域後送與轉診網絡



關鍵行動指南

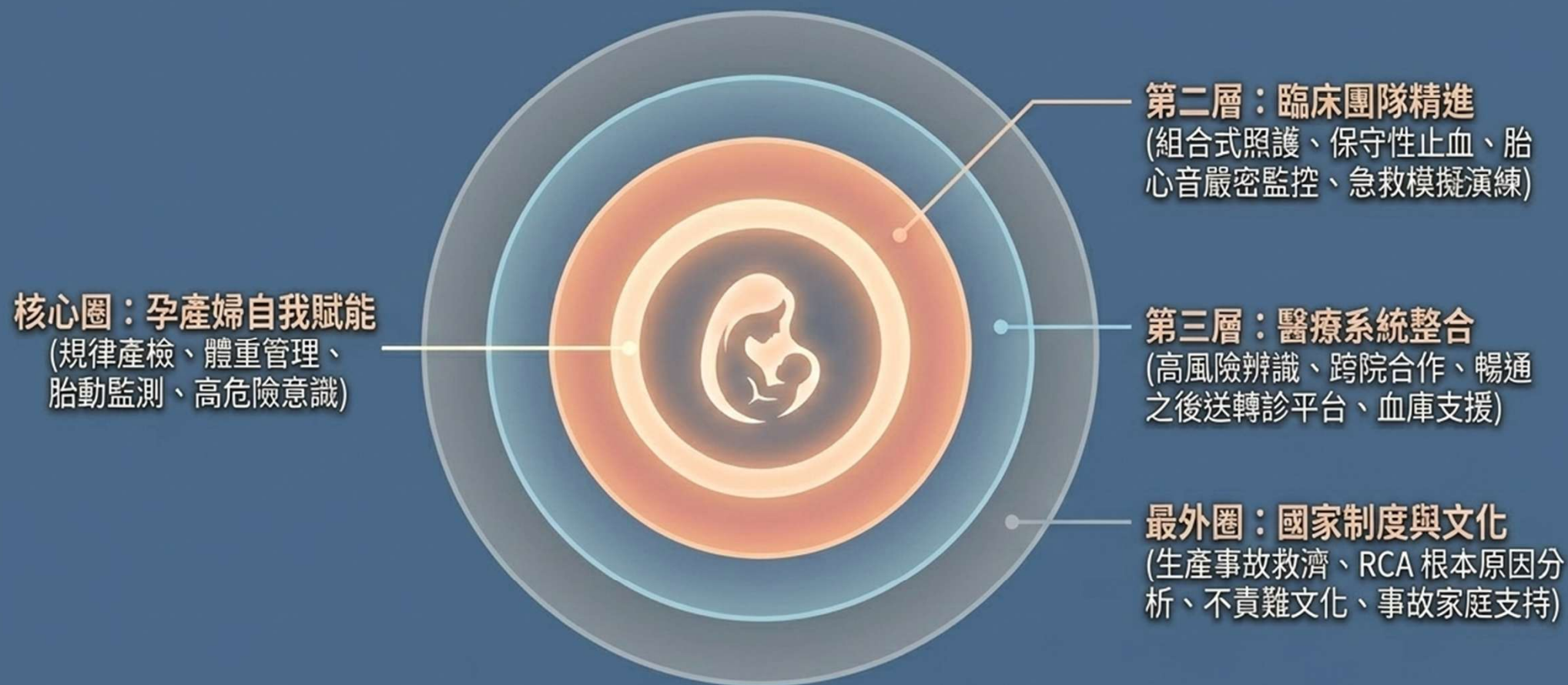
-  **認清底線：**基層院所必須清楚自身量能，不強留高危產婦。
-  **跨科集結：**遇緊急剖腹產，產房需與麻醉科、血庫建立零時差溝通。
-  **預防性轉介：**高風險族群 (如子癲前症) 務必及早轉介，避免急性發作轉送風險。

從傷痛中學習：RCA 分析與建立不責難文化

生產事故救濟的核心精神，在於將事故經驗轉化為系統安全的基石，而非個人究責。



總結：建構多層次的周產期安全網



從個人健康管理到醫療體系防護，缺一不可。唯有多管齊下，才能建構具備韌性與公平的周產期照護體系。

「落實救濟精神，不僅是對母親與新生兒的
保障，更是對每一個家庭與社會的承諾。」

感謝每一位在臨床前線與制度背後付出的夥伴。我們將持續攜手，
讓台灣的孕產環境在信任、專業與關懷中不斷前進。

門診加強監測
(狀態穩定)

- ✓ 控制良好 GDM
 - ✓ 無嚴重特徵子癲前症
 - ✓ 孤立性輕度羊水過少
- 血流正常 FGR

提高頻率 / 考慮住院
(風險升溫)

- FGR 需 > 每週 3 次監測
- ⚠ 嚴重羊水過少 (MVP < 1cm)
 - ⚠ 控制不良 GDM

立即住院 / 準備分娩
(失代償)

- ⚠ 出現胎心音異常
- ⚠ 臍動脈舒張末期血流缺失或反向
- ⚠ 子癲前症嚴重特徵
- ⚠ 子癲抽搐



妊娠不是靜態結果，而是動態進展。
越往右側，所需的護理介入時間與資源呈指數型暴增。

胎兒與羊水指標：監測頻率與介入時機

胎心音異常 (FHR)

- 升級時機：不放心胎心率型態或 BPP 偏低。
- 處置標準：本身即為「第三層」訊號。須立即住院考慮分娩；合併 FGR 或引產者採連續性 EFM。

⚠ 緊急介入



胎兒生長遲滯 (FGR/IUGR)

- 常規監測：臍動脈血流正常每 2-4 週評估。
- 升級時機：舒張末期血流下降 (每週) → 缺失 AEDF (每週 2-3 次) → 需監測 >每週 3 次即考慮住院。
- 處置標準：血流反向 (REDV) 須住院連續監測；<32 週預期生產給硫酸鎂。

常規

AEDF

REDV



羊水過少 (Oligohydramnios)

- 常規監測：MVP < 2cm 或 AFI < 5cm，每週 1-2 次產前監測。
- 升級時機：嚴重過少 (MVP < 1cm) 需每週 2 次；或合併都卜勒異常。
- 處置標準：孤立性於 36-37 6/7 週分娩；合併 FGR 於 34-37 6/7 週分娩。

常規

MVP < 2cm / AFI < 5cm

MVP < 1cm



母體系統性指標：控制與急症防線

子癲前症 (Preeclampsia)

- 常規監測：無嚴重特徵者採門診管理 (門診+居家血壓序列監測)。
- 升級/處置：出現任一嚴重特徵 (嚴重高血壓、肺水腫、少尿、肝功能/血小板異常) 須即刻住院。 <34 週採期待療法須於密切監測下進行。



子癇 (Eclampsia)



- 狀態：產科急症，屬子癲前症進展的終點，非觀察層級。
- 處置標準：立即處置抽搐 (硫酸鎂首選)、控制血壓，母胎穩定後盡速分娩。

妊娠糖尿病 (GDM)

- 常規監測：藥物控制良好 (32 週起每週 1-2 次)；控制不良 (每週 2 次)。
- 分娩時機：飲食控制良好可待至 <40 6/7 週；藥物控制良好 39-39 6/7 週；控制不良 37-38 6/7 週。NST 異常時即刻升級。



觀察性住院的真實價值：不在「做了什麼手術」，而在「守望望」



密集監測

連續追蹤血壓、血糖、胎心與器官指標，抓住惡化的第一時間。



即時待命

前置胎盤待命輸血、隨時可轉剖腹——人力與資源就位。



爭取時間

安胎、促進胎肺成熟，為早產兒多爭取每一天的存活條件。

這就是「分級醫療」與「產前轉診」落實到住院端的實體。

制度缺口(一)：現行支付獎勵「處置」，卻懲罰「守望」

現行 DRG／處置導向

- 一個病例給一包固定的錢
- 獎勵明確診斷、明確處置、明確產出
- 做得越多、報得越多

觀察性住院的本質

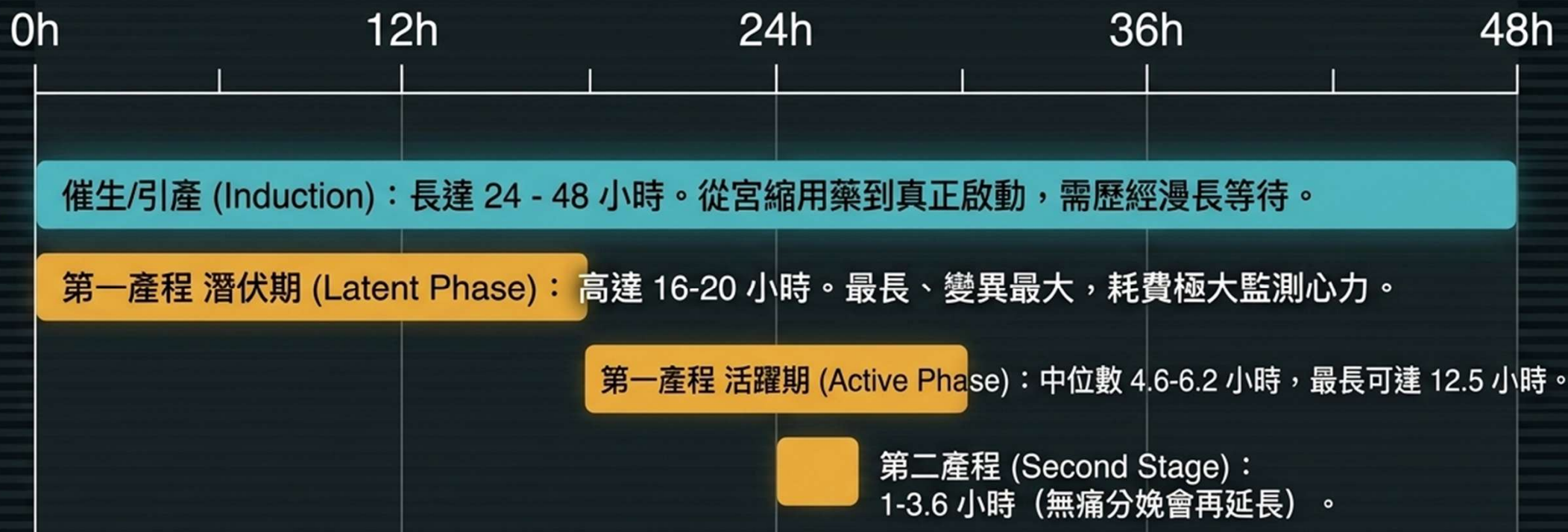
- 病人常「什麼都沒發生」就出院
- ——因為監測成功攔截了風險
- 價值在守望，卻無處置可申報

結果：誘因裝反了

醫院不願收（賠錢，又怕住院天數被核刪）


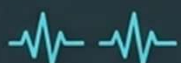
醫師被懲罰（越謹慎守望、越吃虧）→ 產科落入申報末段班、年輕人用腳投票

產程馬拉松與時間成本 (The Marathon Track)



這條漫長的時間軸，意味著一位產婦可能需要**跨越 2 到 3 個護理班別**（白班/小夜/大夜）。在這數十小時內，隨時可能瞬間轉向**急危重症**。

Data Stream 1: 母體監測

 母親生命徵象
 宮縮頻率



高警訊藥物 (催產素 Oxytocin)
滴注速率: [Value] mL/hr

⚠️ 活躍產程 / 催產素引產 = 絕對 1:1 照護 (不可稀釋) ⚠️

Data Stream 2: 胎兒監測



連續性胎心音監測 (EFM) 尋找微細變異

使用高警訊藥物引產時，護理師實質上是同時密集照護「兩位」病人（母與胎）。
這不是普通病房的巡房，而是 ICU 等級的即時監測。

產後最初 120 分鐘：生死交關的關鍵視窗 (The First 120 Minutes Postpartum: The Critical Window)

生命誕生
(Moment of Birth)

Time Block A: 第三產程與縫合

胎兒娩出後 10-25 分鐘。
會陰縫合與胎盤娩出，
若有複雜裂傷需時更久。

Time Block B: 第四產程 (產後密切追蹤)

關鍵
120
分鐘

最大致命風險：產後大出血 (PPH)



生命誕生的那一刻，照護負載並未清零，
而是進入另一個需要專人緊盯的 120 分鐘危險視窗。

THE 3-PERSON EQUATION



主責護理師/助產師
負責產婦照護、給藥與母體
生命徵象。



1 位母親
+
1 個新生兒



支援護理人員
負責新生兒保暖、初階評估
與急救準備。



接生醫師/助產師
專注於生產技術與胎兒順利娩出。



**AWHONN 安全配置底線：每場生產，扣除醫師，絕對需要 2 名
護理師同時在場（顧母 + 顧嬰）。**



第四產程：黃金兩小時的產後追蹤

胎盤娩出後並非醫療任務的結束，而是防範「產後大出血 (PPH)」的關鍵觀察期。

會陰修補的接續






- 平均耗時：10 至 25 分鐘（連續縫合約 13 分，含切開修補約 19-23 分）。
- 變數：複雜裂傷（三/四度）需資深醫師修補，會進一步延長產婦留置時間。

產後密切追蹤 (2 小時)

- 防禦重心：胎兒娩出後，仍須維持高強度警戒約 2 小時。
- 人力要求：恢復初期需專人 1:1 照護，確保子宮收縮良好與生命徵象穩定。



營運特性診斷：為何產房無法套用一般管理邏輯？

維度	一般病房 (General Ward)	產房 (Maternity Ward)
可預測性	高，可排程入出院 	 極低 ，24/7隨時發作
人力彈性	有，夜班可依比例縮減人力 	 無 ，活躍產程硬性 1:1
單元聯動性	單一單位獨立運作 	 母嬰綁定 ，牽動產房、嬰兒室、開刀房 3 單位 
風險成本	中等 	 極高 ，動輒面臨急救與龐大醫療糾紛 

一般急性病房 (Standard Ward)



- 入院多為排程、白天集中。
- 夜班負荷較白班低且可預期，護病比可放寬 (例：白班 1:6，大夜 1:11)。

產房 (Labor & Delivery)



- 生產 24 小時隨時發生，嬰兒不按生理時鐘報到。
- 活躍產程是硬性 1:1，每場生產 2 名護理師。

結論：白班、小夜、大夜的最低安全人力完全相同，絕對不可隨夜班遞減。

產房人力編制與年接生量關係圖



在年接生量突破 800 例之前，人力的數量是由「24小時待命的法規與安全底線」決定的，而不是工作量。我們支付的成本，是為了填補那 30 分鐘生死時速的「就緒保險 (Cost of Readiness)」。

制度缺口(二)：被漏掉的核心成本——護理人力

觀察性住院是「護理密集」照護，不是「手術密集」——密集監測、頻繁量測、待產待命，這些活全落在護理人員身上。



護理人力，才是主要成本

- 頻繁量測血壓、血糖
- 持續胎心與母體監控
- 待產、安胎的隨時待命
- 用藥調整、衛教與情緒支持



DRG 卻看不到這些

- 包裹定額計價，未反映護理密集度
- 醫院為守結餘，護理配置能省則省
- 觀察住院最吃護理 → 醫院更不願收

政策時機：衛福部已為急診、ICU 調高護理費、推三班護病比入法——同樣邏輯應延伸到高危產科觀察照護。訴求：DRG 包裹計價必須把「護理人力密集度」的真實成本算進去。

臨床實例：催生／引產，守望型住院的完美縮影



- 1 需住院、長時間密集監測**
催產素、陰道塞劑須持續評估宮縮、胎心與產程進展，全程不能離人。
- 2 常耗時超過 24 小時**
從引產到分娩往往跨日，護理與醫師投入的是大量『待命時間』。
- 3 未必以手術收場**
多數順利自然產——沒有大手術可申報，卻已投入完整人力。
- 4 投入高、申報產出低**
正是現行支付看不見、也給不到位的『守望價值』縮影。

醫療介入對產程軌跡的延伸效應

無痛分娩 (硬膜外麻醉) 與催產素會改變產程的預期長度，團隊需給予更寬容的觀察期：

Natural Time

The Epidural Effect

3.6 小時

>4 小時

無痛分娩的影響 (The Epidural Effect)

第一產程：潛伏期可因麻醉與鎮靜略為延長。

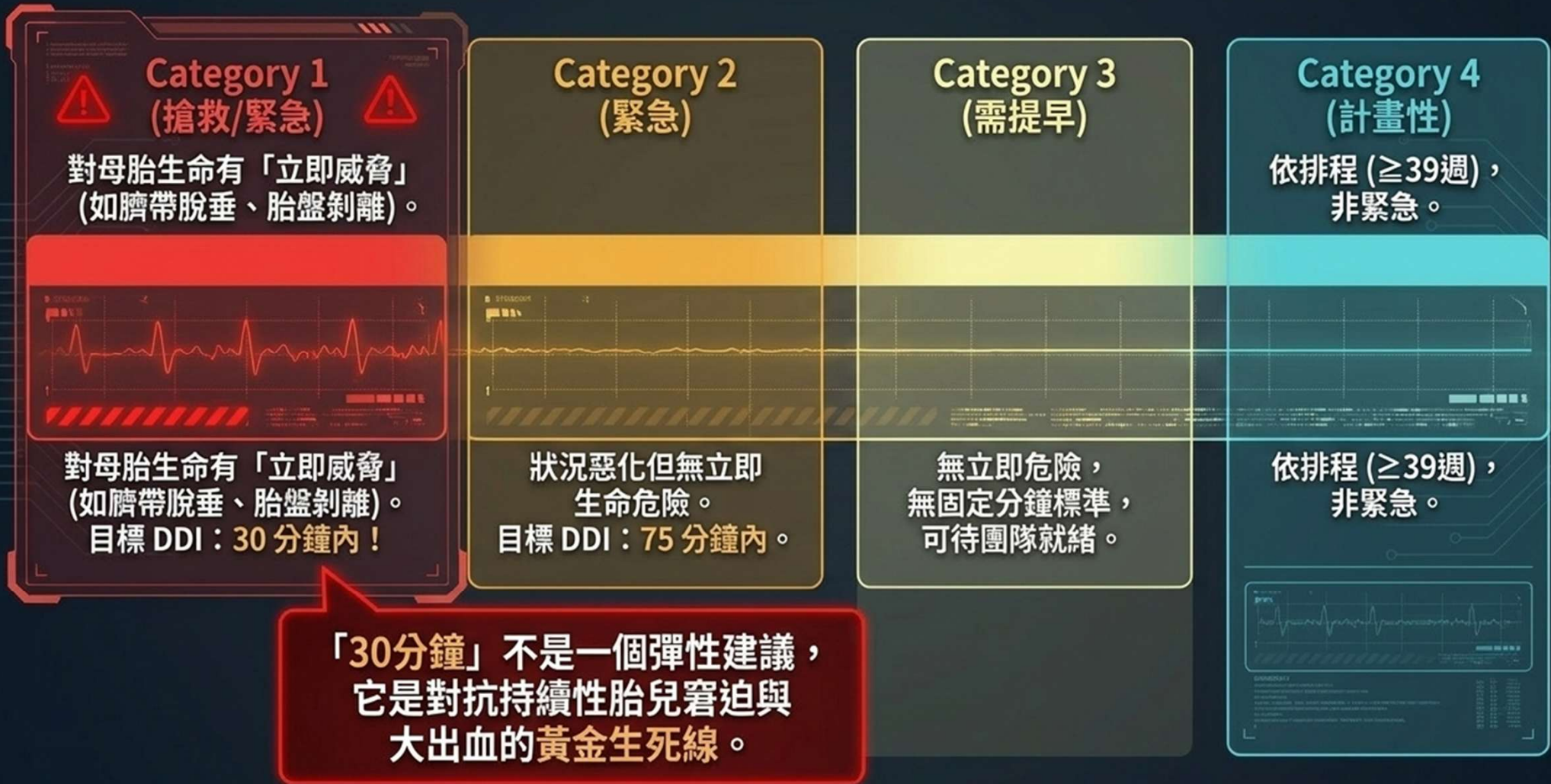
第二產程 (顯著延長)：

- 初產婦：第95百分位由 2.8 小時延長至 3.6 小時。延長診斷標準放寬至 >4 小時。
- 經產婦：第95百分位由 1.1-1.3 小時延長至 1.6-2.0 小時。延長診斷標準放寬至 >3 小時。

催生/引產的影響

因需等待子宮頸成熟 (Bishop 分數)，整體引產過程常需 1 至 2 天，初產婦耗時明顯較久。

剖腹產四類分級 (The C-Section Triage Matrix)



時間就是生命：DDI 倒數原則

DDI (Decision-to-Delivery Interval) 是評估周產期緊急應變能力的國際品質稽核指標。



Category 1 (搶救)

前線連結：高危險妊娠防線的最後環節
(如：血流缺失/反向、子癇抽搐失控)。



Category 2 (緊急)

時間標準：決定後 75 分鐘內娩出(常見稽核標準 60-75 分鐘)。
前線連結：對應高危矩陣「第三層」中，尚可在數十分鐘內
從容安排手術的失代償情境。

【註記】：30/75 分鐘為源自專家共識的建議指標，非絕對實證硬門檻，實際仍須依產科團隊對母胎監測的即時判斷。

MINUTE 0:
醫師下達 Cat.1 緊急剖腹產決策。

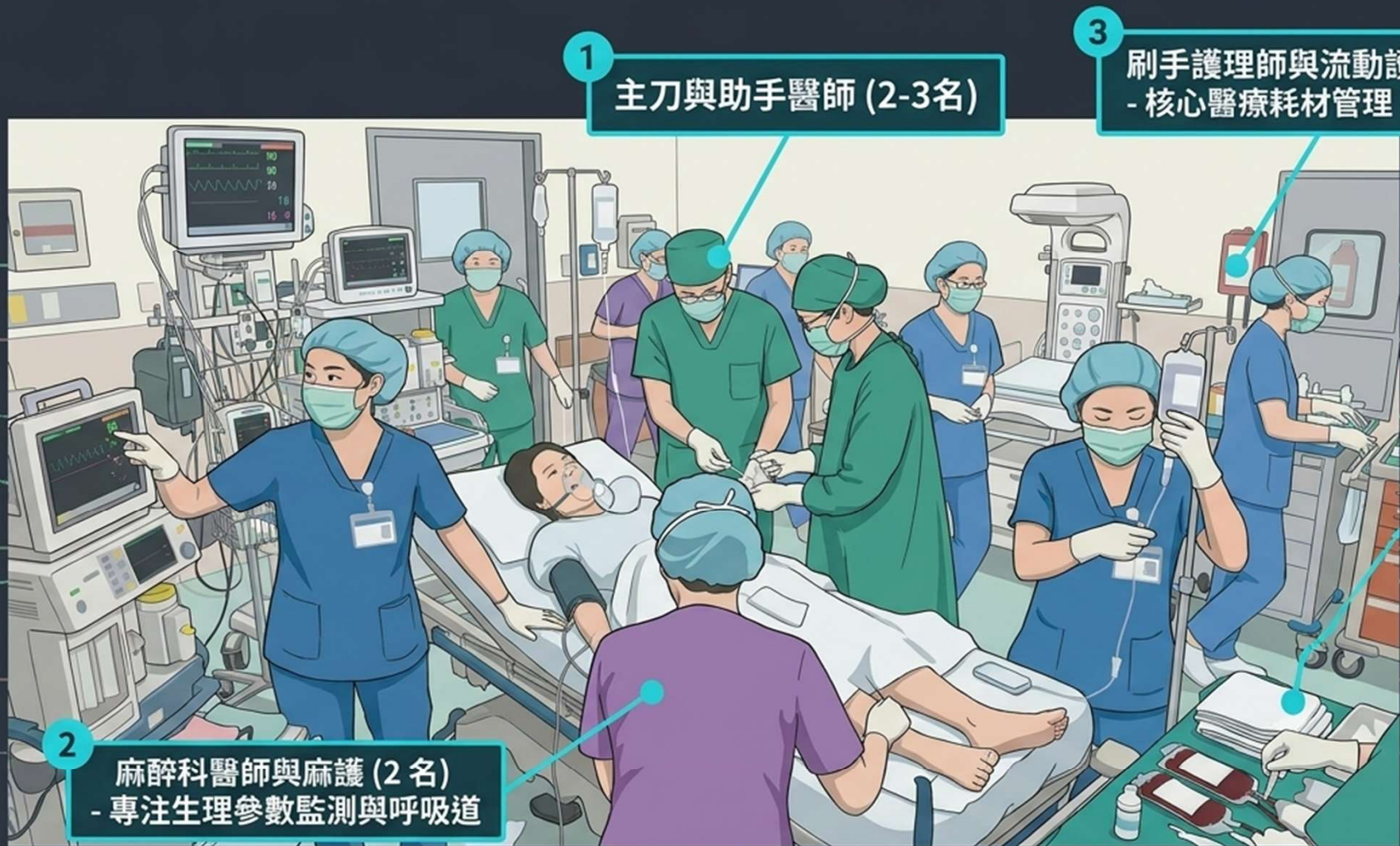
MINUTE 0-5:
啟動警報、家屬快速說明、推至手術室。

你不可能在 30 分鐘內
「召集」一支隊伍；
要達成 DDI 30，這支龐
大的跨科別團隊必須早
就已經在現場待命。

MINUTE 5-15:
上產台、緊急麻醉到位、建立
呼吸道。

MINUTE 15-25:
腹部大面積消毒、
鋪單、器械點班。

MINUTE 25-30:
醫師劃刀、胎兒娩出！



1 主刀與助手醫師 (2-3名)

3 刷手護理師與流動護理師 (2名)
- 核心醫療耗材管理

2 麻醉科醫師與麻護 (2名)
- 專注生理參數監測與呼吸道

一個單一的 Cat 1 決策，瞬間抽乾醫院 10-12 名核心專業人力。
這就是為什麼產科是「重裝備、高密度」的戰場。

數學上的死局：專責麻醉團隊的財務悖論 (The Anesthesia Paradox)

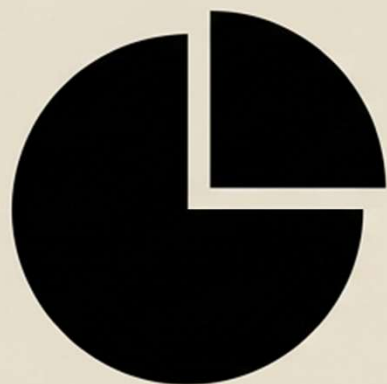


[Paradox]：在此規模下，養一組專責麻醉團隊的固定成本，與其帶來的微薄手術收入，形成永遠無法損益兩平的平行線。

緊急剖腹產的「**30 分鐘底線**」：決定開刀到劃刀需在 30 分鐘內，迫使麻醉團隊必須 **24/7 待命**。

無情計算：在年 500 例、剖腹產率 45% 的前提下，**工作量永遠追不上 24/7 的待命底線**。

制度缺口(三)：支付設計的陷阱——DRG 定額天花板如何阻礙投資



DRG = 一塊固定的餅

一個病例的包裹給付有定額天花板。餅的大小不變，只是內部重新切分。



醫師費 ↑
但 DRG 包裹總額不變



等於同一塊餅重分配
多給醫師的，從醫院結餘擠出



醫院結餘被壓縮
增設產科病床、人力、設備的誘因不升反降

訴求：醫師費與 DRG 包裹總額必須「連動、同步」調高。只加醫師費而不擴大包裹，錢到不了醫院的投資決策，第一線照樣缺床缺人。

政策解方：健保給付該怎麼「配合」觀察性住院

1

設立獨立支付項目或加成

承認「密集監測與待命」本身就是一種醫療服務，而非附屬於處置。

2

以明確臨床指徵＋週數界定範圍

綁定重度子癩前症、高風險前置胎盤、未足月破水等，可稽核，不是空白支票。

3

把「未發生的壞事」納入價值

支付設計要看『避免了什麼』，承認預防性照護的價值。

與近年健保優先調高急診、加護病房、急重症護理費，是一套邏輯的合理延伸。

制度槓桿：換一個指標——用「高危適當轉診率」取代「剖腹產率」



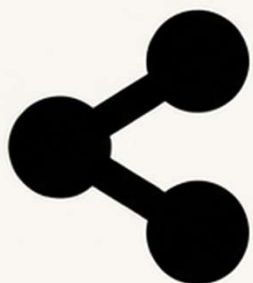
現行：剖腹產率

- 可能懲罰「該剖就剖」的高危案例
- 反映不了安全分流的品質



改用：高危適當轉診率

- 「該轉的有轉到」——可稽核安全網是否運作
- 重點是「適當」，不是越多越好（防過度轉診）



各層級資源共享

診所 ↔ 地區 ↔ 區域 ↔ 醫學中心
打通床位、NICU、母胎醫學專科，讓轉診有地方去、接得住。



雙向獎勵機制

基層「願意適時上轉」、上層「願意收治」都給誘因，讓分流不再靠醫師佛心。

財務理性：用小錢，省大錢



預防端

數天觀察住院

相對低成本，可控、
可預期。



災難端

動輒數十倍的代價

- 早產兒 NICU 長期照護
- 母體 ICU 緊急搶救
- 生產事故救濟給付 + 訴訟成本

把支出從「災難端」前移到「預防端」——這是投資，不是成本。

台灣新生兒與周產期照護之政策發展： 現況、挑戰與未來展望

陳美惠醫師

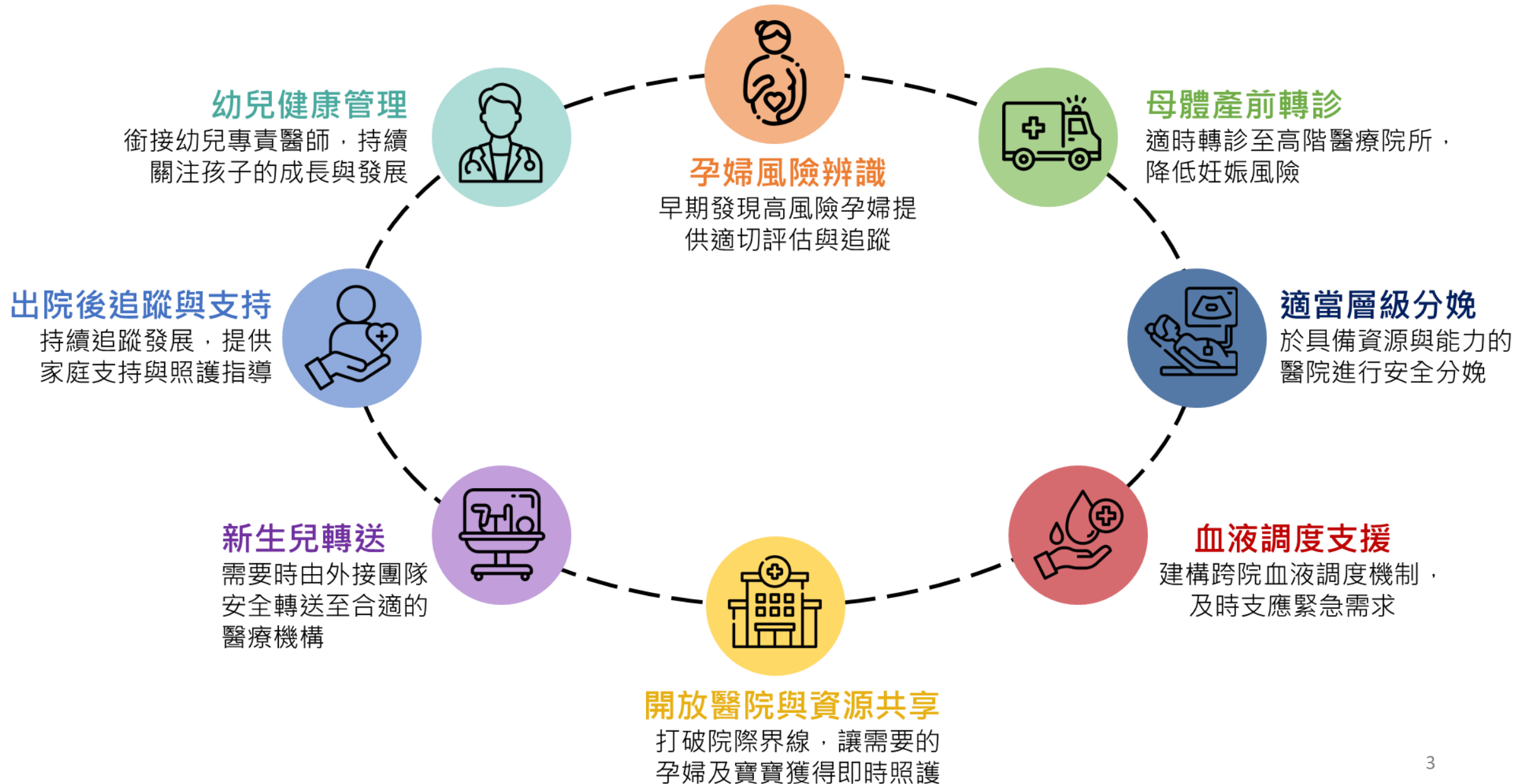
國家衛生研究院 群體健康科學研究所
兒童醫學及健康研究中心 執行秘書長

2026.07.05

It takes a system to give every child a safe beginning

Every child deserves the best possible start in life

What dose a child need for a safe beginning?



Outline

01

Taiwan's changing landscape

02

Building an integrated perinatal care system

03

Beyond implementation

04

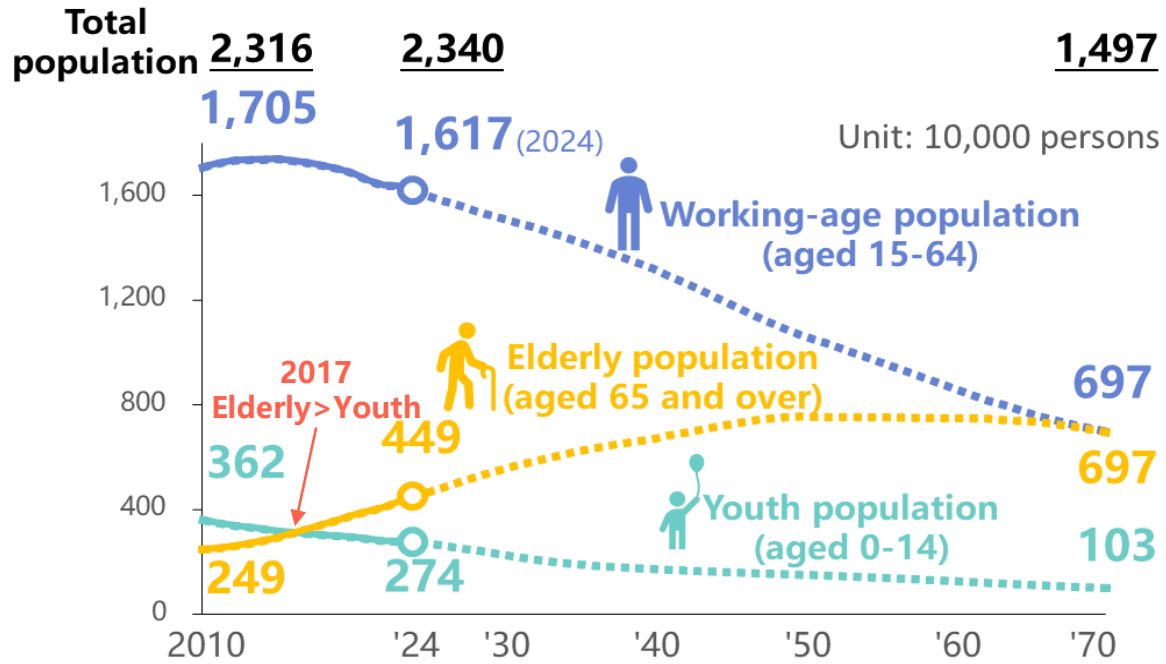
Towards a Learning Perinatal Health System

Why does Taiwan need a stronger system?

Taiwan's changing landscape

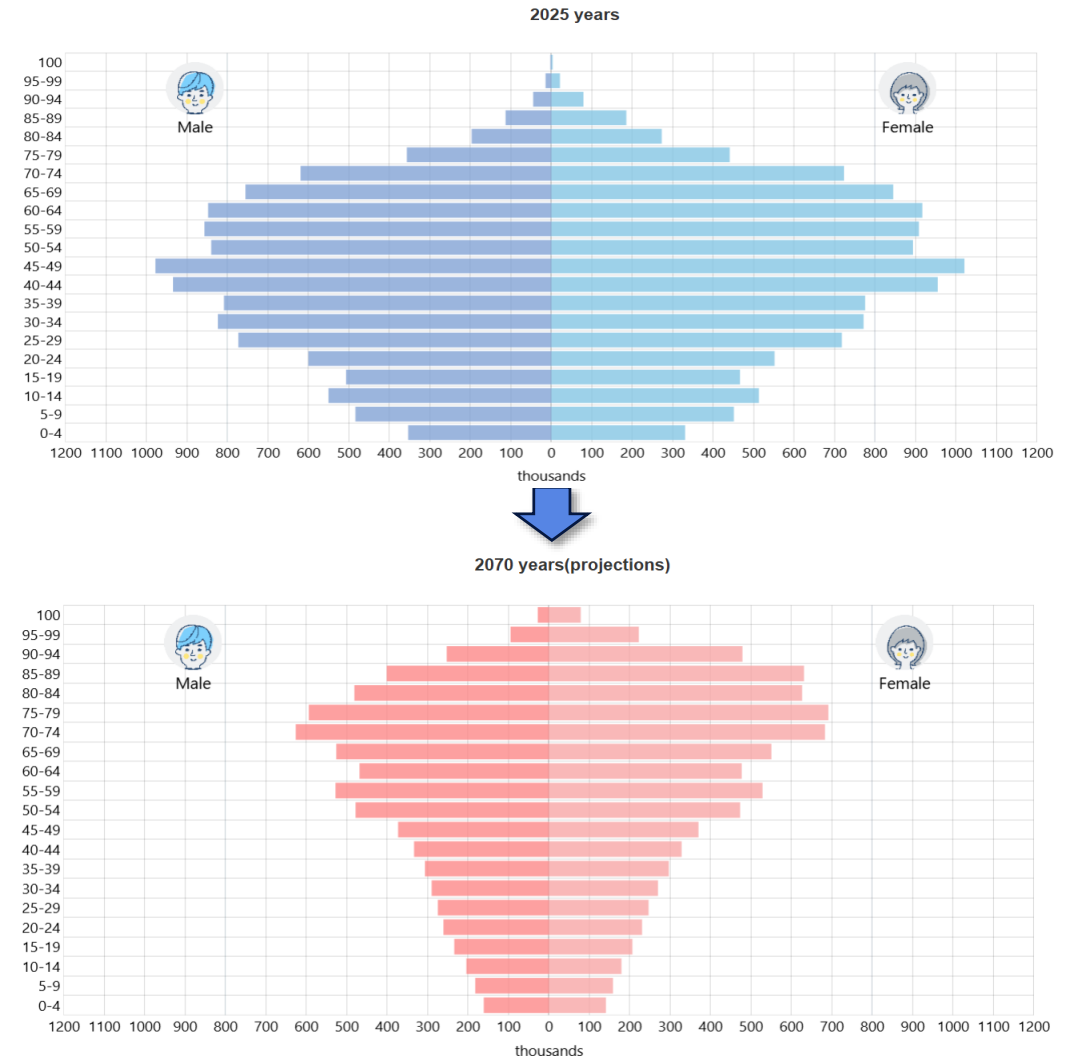
Population Trends of Taiwan

Total Population



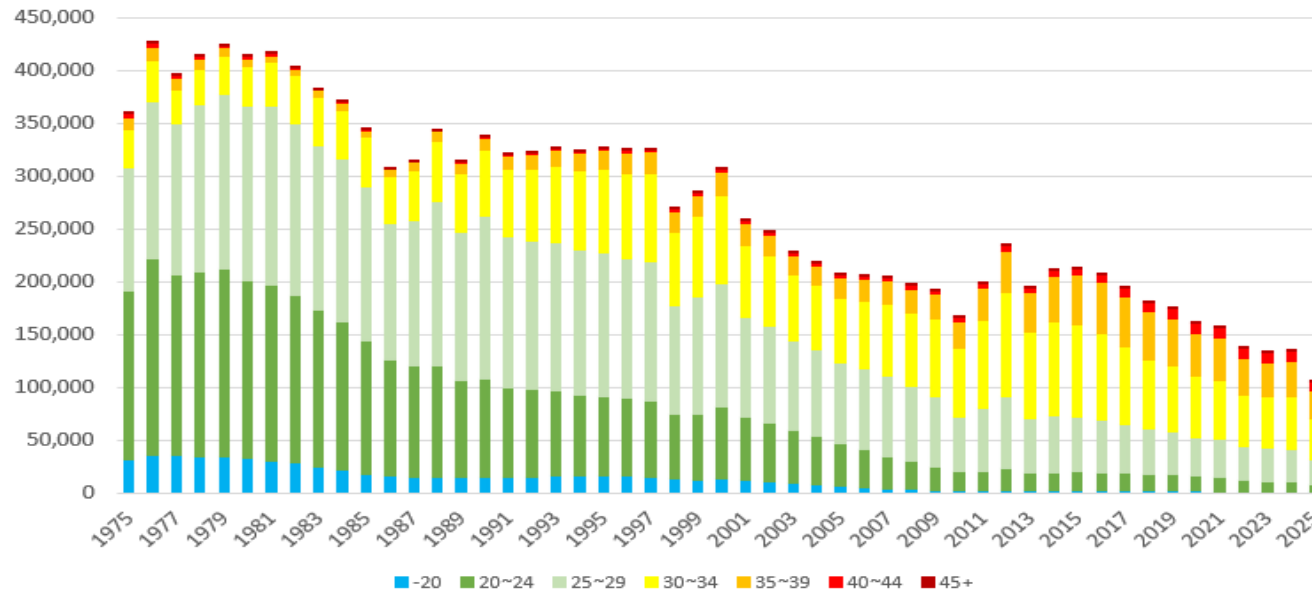
- The youth and working-age populations are projected to continue declining, while the elderly population is expected to continue increasing.
- By 2070, the elderly population will be comparable in size to the working-age population.

Population Pyramid, 2025–2070 (Projection)

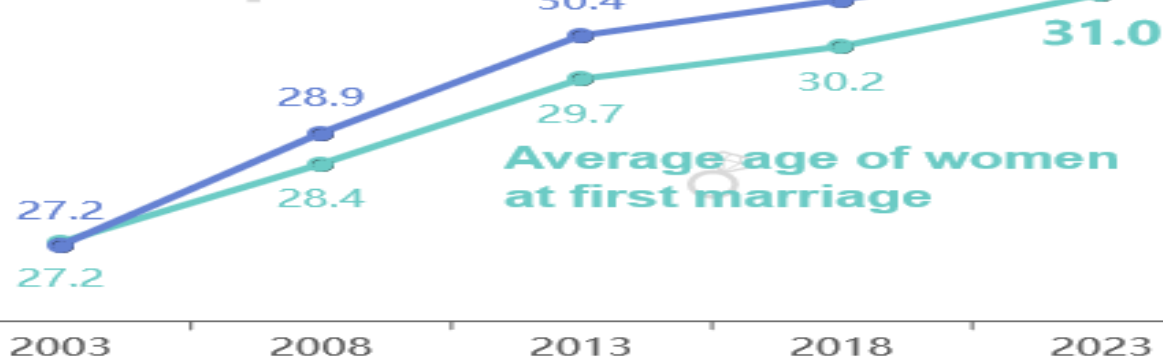


Maternal age and Neonatal outcome

Live births by maternal age in Taiwan, 1975-2025

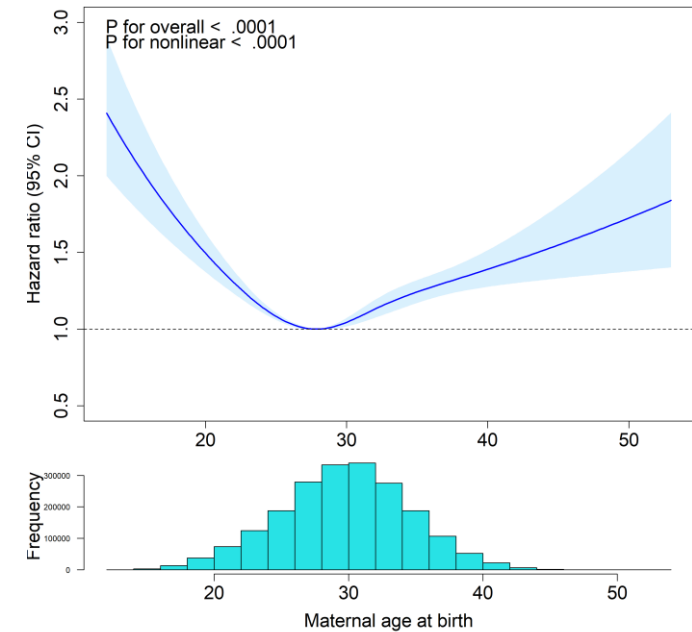


Average age at birth of first child

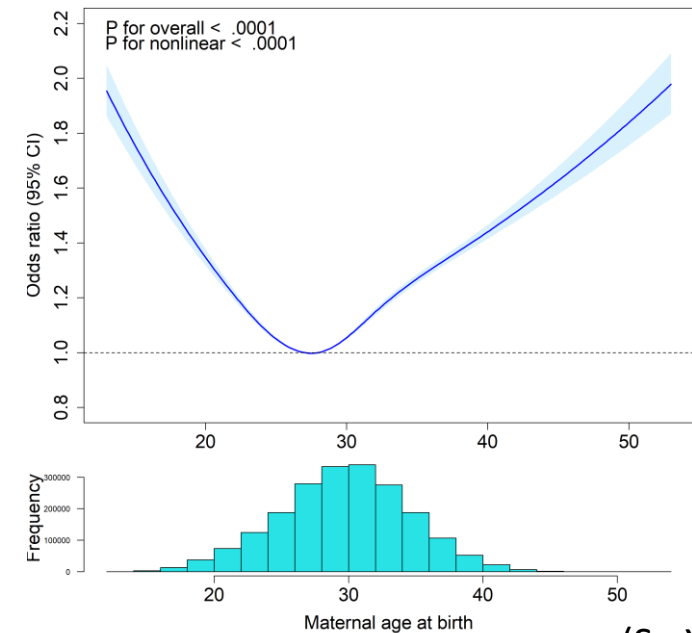


<https://www.ris.gov.tw/>

Infant death



Preterm

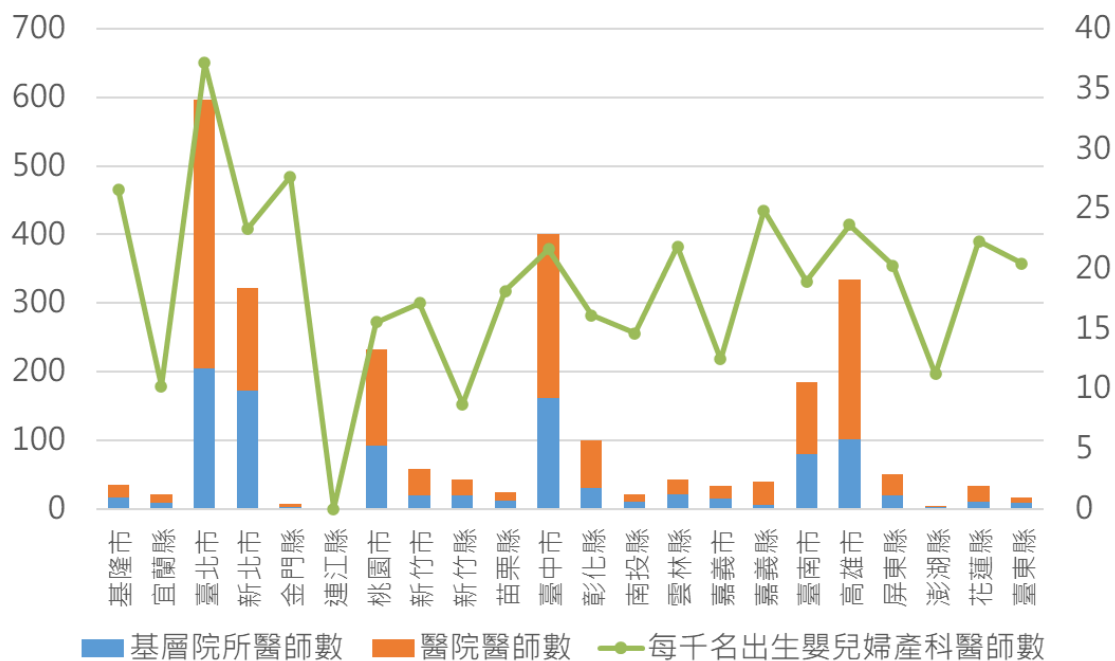


(Su YY, 2025)

Unequal workforce distribution

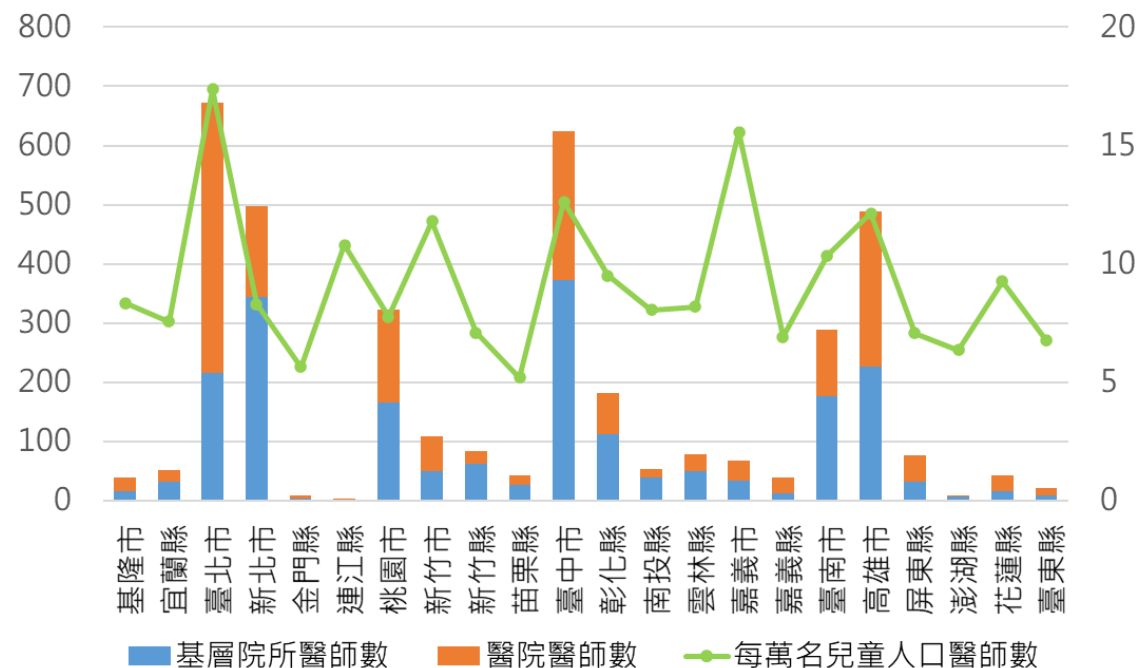
婦產科醫師人力分布

114年婦產科醫生與活產新生兒比率
(每1千名活產新生兒的婦產科醫師人數)



兒童醫療照護人力分布

114年兒科醫生與兒童人口比率
(每1萬名0-19歲兒童的兒科醫師人數)



- 114年共有2,599名婦產科醫師。其中61%在醫院執業，39%在診所執業。
- 各縣市婦產科醫師分布差異大。

- 114年共有3,800名兒科醫師。其中47.5%在醫院執業，52.5%在診所執業。
- 各縣市兒科醫師的分布差異大。

Building Taiwan's Perinatal Care System

「優化兒童醫療照護計畫」

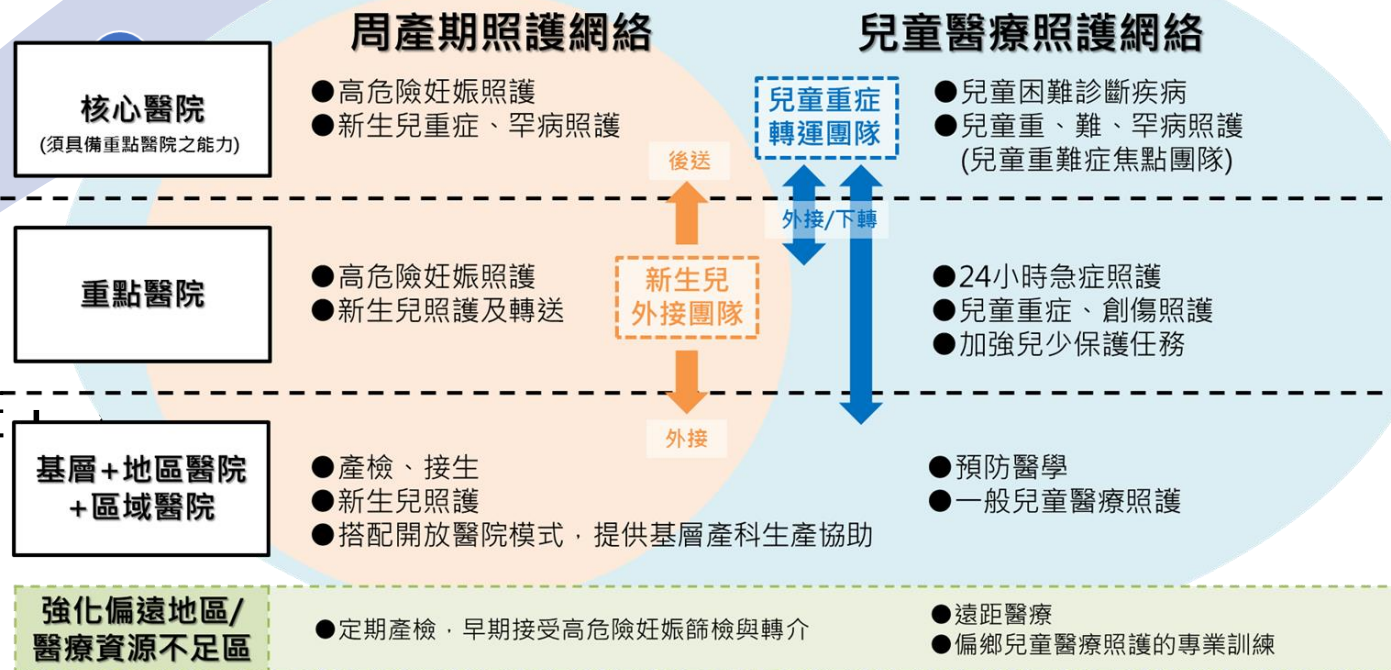
為持續建構兒童醫療照護網絡，並延伸至兒童健康照護服務，行政院已於113年9月核定

「第2期優化兒童醫療照護計畫(114-117年)」



為加速兒童醫療照護網絡優化，於113年起挹注經費擴大辦理多項策略

行政院於109年2月核定
「110-113年優化兒童醫療照護計畫」
自110年起推動八大策略



第2期優化兒童醫療照護計畫架構(114-117年)

懷孕

生產

新生兒


兒童

青少年



第一章	第二章	第三章	第四章
<p>完備從周產期到新生兒、兒童的醫療連續性照護</p>	<p>以兒童為中心，強化初級照護與健康管理，並強化與社政體系合作</p>	<p>強化兒童重難症醫療照護資源整合與協調</p>	<p>精進資訊整合，確保並監測兒童醫療照護網絡運作</p>
<ol style="list-style-type: none"> 1.重點醫院能力分級，提供在地化周產期與兒童緊急醫療照護 2.周產期高風險孕產婦(兒)追蹤關懷及偏鄉照護 3.極低及低出生體重兒居家照護 	<ol style="list-style-type: none"> 1.幼兒專責醫師制度 2.提升兒童發展篩檢異常發現及聯合發展評估服務效能 3.建立我國嬰幼兒口腔親善之家照護模式 4.推廣兒童事故傷害防制宣導計畫 5.兒童肥胖防治計畫 	<ol style="list-style-type: none"> 1.核心醫院 2.兒童困難診斷疾病平台 3.建立跨專業兒童(青少年)精神醫療團隊及規劃設置兒童(青少年)心智病房 4.特殊兒童及青少年視覺復能計畫 	<ol style="list-style-type: none"> 1.設立優化兒童醫療照護計畫協調管理中心 2.兒童困難取得之臨床必要藥品及醫材調度中心 3.兒童醫療專業照護人力培訓 4.整合精進幼兒專責醫師個案管理相關資訊系統與平台

串連相關資源，完善自周產期起的新生兒照護

 新生兒外接團隊

雙向轉診

核心醫院計畫



兒童重症轉運專業團隊



兒童困難診斷疾病平台



兒童重難症照護團隊

周產期照護網絡

即早發現高危險妊娠孕產婦，產前轉診至合適院所照護及生產



周產期高風險孕產婦(兒)追蹤關懷計畫

符合高風險健康、社經因子之孕產婦



懷孕

14次產前檢查

生產



新生兒

低出生體重

低(含極低)出生體重兒
居家照護計畫

113年納入指定收案

幼兒專責醫師 制度計畫

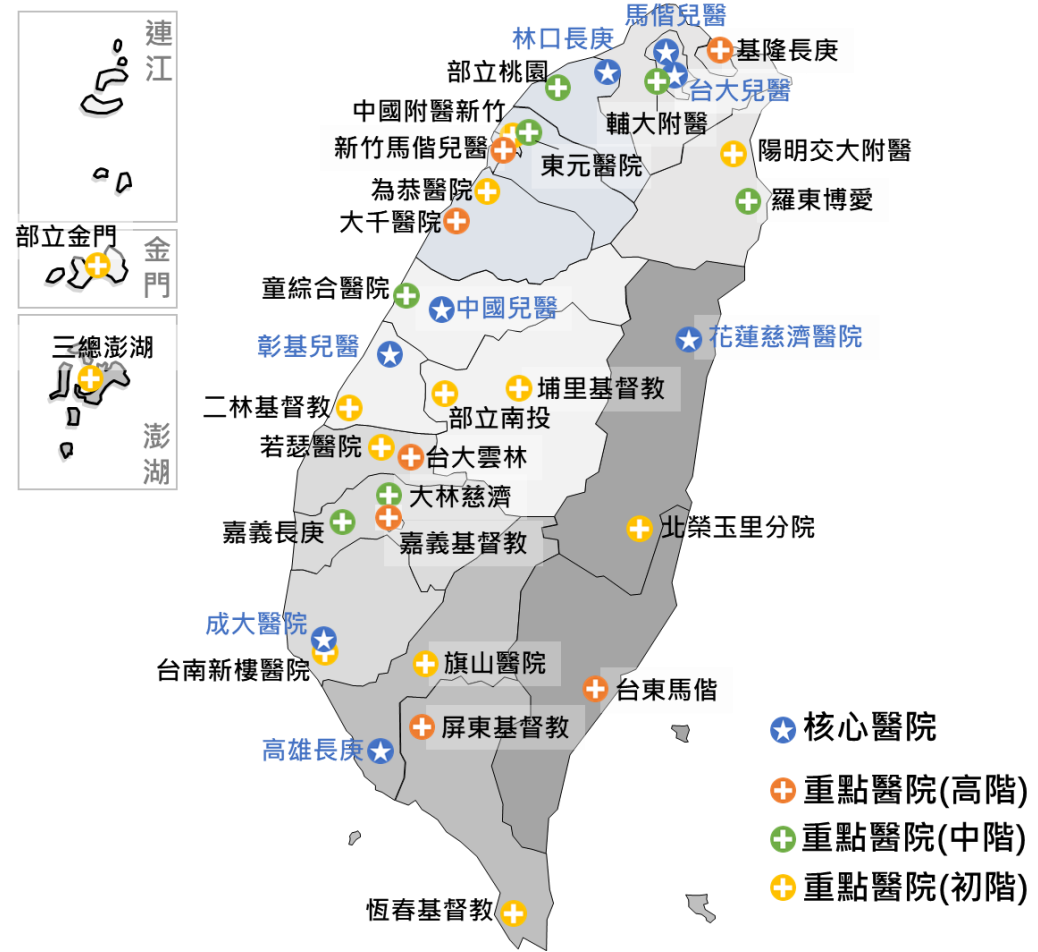
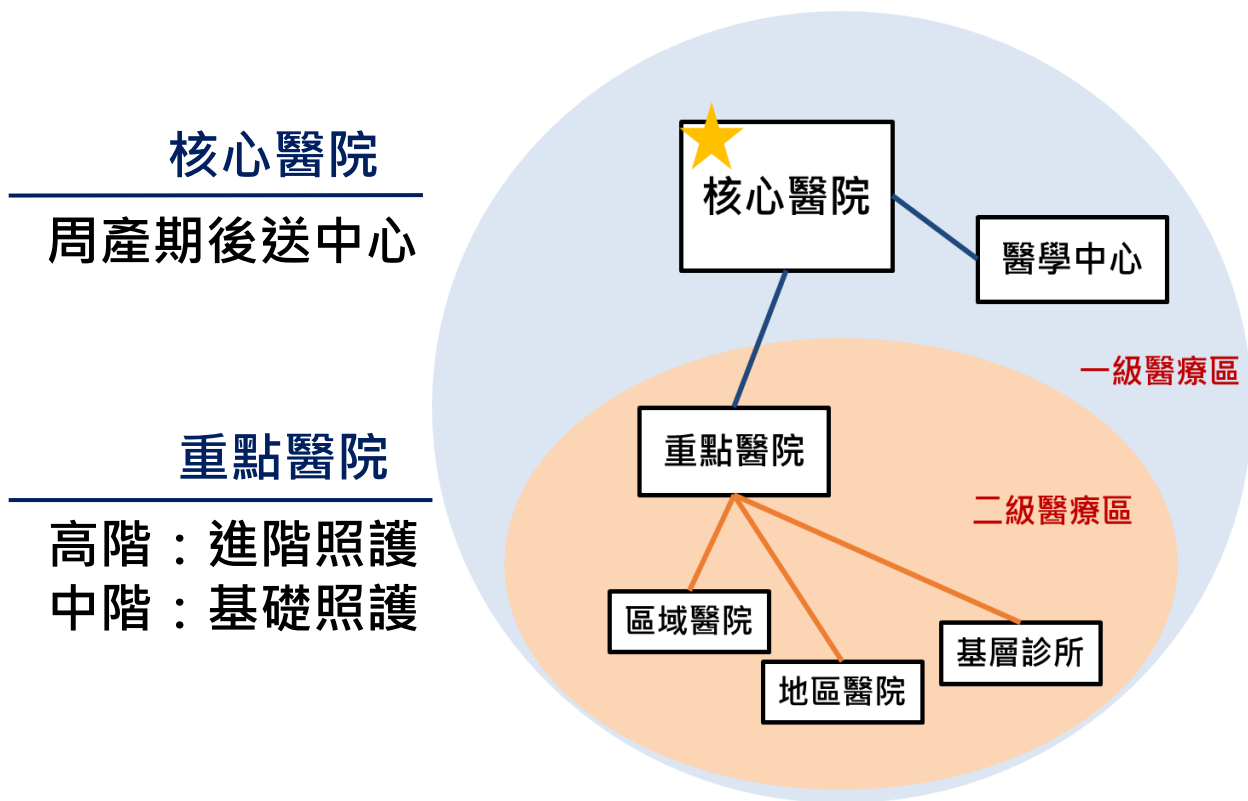
指定收案

參與院所：衛生所、診所、地區&區域醫院、醫學中心

周產期照護合作網絡 | Delivering the right care in the right place

核心醫院：整合一級醫療區的照護網絡

重點醫院：整合二級醫療區的照護網絡



高危險妊娠產前轉診 | Earlier identification, better preparation

■ 建立區域合作網絡：

與產檢 / 接生機構、衛生局(婦幼局)及國健署周產期高風險孕產婦追蹤關懷計畫執行院所，強化雙向轉診。

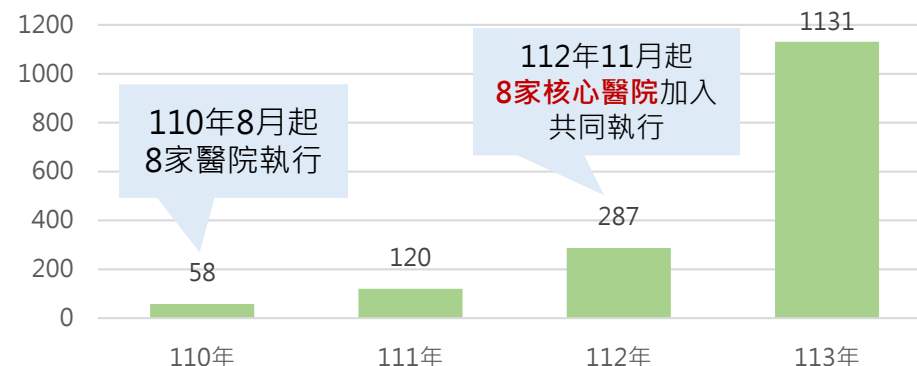
■ 組成跨專科高危險妊娠照護團隊：

建立產前轉診、產程中及產後緊急應變流程，包含到院前後處置、加護病房床位及醫事人力調度。

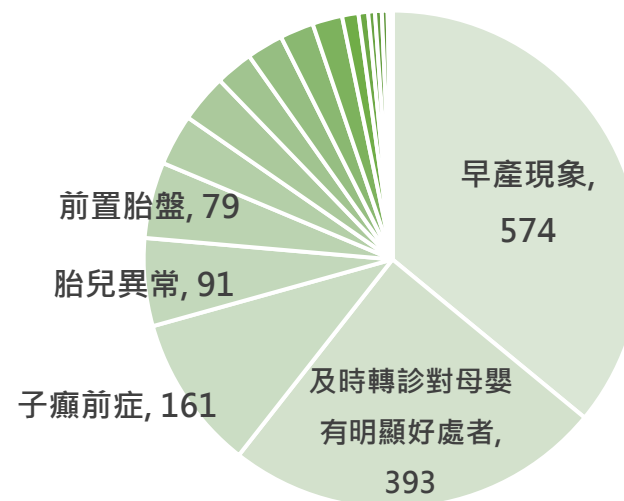
■ 鼓勵高危險妊娠產前轉診：

依據不同高危險妊娠疾病範疇，分別送至中度級或重度級急救責任醫院。

高危險妊娠產前轉診人次



產前轉診原因分析



(統計資料：110-113年)

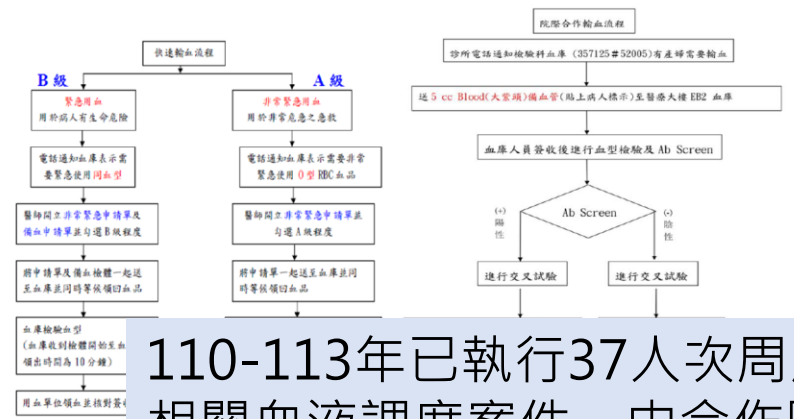
血液調度機制 | 強化產後大出血緊急應變

強化產後大出血等孕產婦急症應變，建立緊急血液調度機制，並視需要支援區域內合作醫療機構之緊急供血。

台大雲林分院

一、讀卡機讀取資料，資料自動上傳
二、同步印出檢驗單
三、血型檢核機制
四、刷血品條碼
五、血品全程溫控專人專車運送
六、輸血加溫器，客製化服務
七、訂單追蹤資訊監控點對點時效
八、特殊血型 and 抗體鑑定諮詢服務

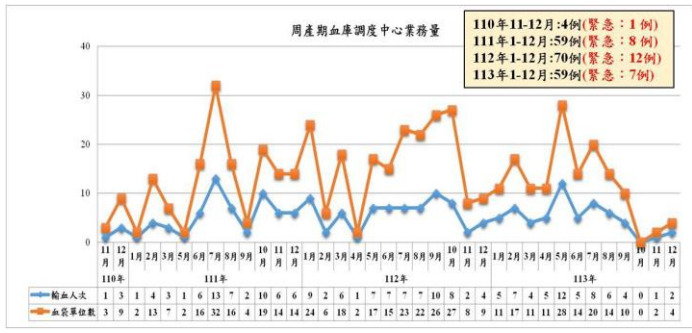
大千醫院



110-113年已執行37人次周產期相關血液調度案件，由合作院所提出需求，由大千醫院提供血品！

圖十一、快速輸血流程

圖十二、院際合作輸血流程



從110年11月到113年底，共計輸血192人次，包括緊急輸血有28例，共計輸血袋數490單位！

另外新竹馬偕、台東馬偕醫院...等也有提供網絡內合作院所血液的案例。

開放醫院模式 | 串聯基層產檢與醫院生產

醫院與基層醫療機構合作，孕產婦可在基層產檢，並至合作醫院生產，由基層產檢醫師與醫院醫師共同進行孕產婦個案管理等，以提供其連續性醫療照護。

台大雲林分院



110-113年共計59位孕產婦接受診所及醫院醫師共同照護！

大千醫院

大千綜合醫院生產計劃書

這一次我們的第胎，實質預產期：___/___/___ (現在是週)，我的產科醫師：、我願意在產檢、將來生產在大千綜合醫院；
我與主要陪產者，開始提供以下資料給和醫護人員有更進一步的默契！

一、分娩及待產的選擇

1. 我希望能在待產時自由走動 是 否
2. 我希望分娩期間能進食 是 否
3. 我同意分娩時設置靜脈留置針 是 否
4. 我同意分娩時可能需要大量靜脈輸液注射 是 否

二、麻醉選擇 是 否

1. 分娩時不一定需要減痛分娩麻醉，我有自行選擇的權利

三、關於自然產

1. 對於生產時「是否需禁食」 是 否
2. 對於生產時「是否做注射點滴」 是 否
3. 對於生產時「是否使用催生藥物」 是 否
4. 對於生產時「是否要先生陪產」 是 否

產後

1. 我希望盡早做親子接觸，除非醫療上不允許 是 否
2. 我希望餵母乳 是 否

簽名：日期：民國年月日

110-113年共計43位孕產婦接受診所及醫院醫師共同照護！

另外114年起，輔大附醫、童綜合醫院、大林慈濟等醫院也開始推動開放醫院模式，與區域內的婦產科院所合作

新生兒外接 | When babies need to move, we moves

■ 組成專業轉運團隊：

成員包含醫師、護理師及緊急救護技術員。

- 高階重點醫院：新生兒外接團隊
- 核心醫院：全齡兒童重症轉運團隊

■ 完備轉運相關設備：

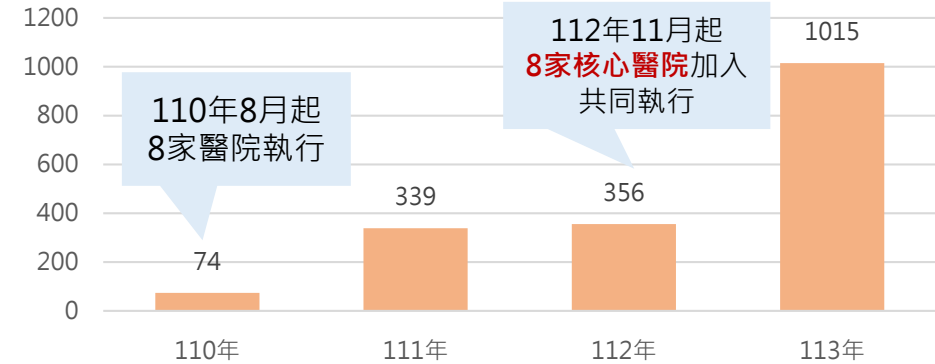
包含救護車、外接設備及專用備品等，並定期檢核維護。



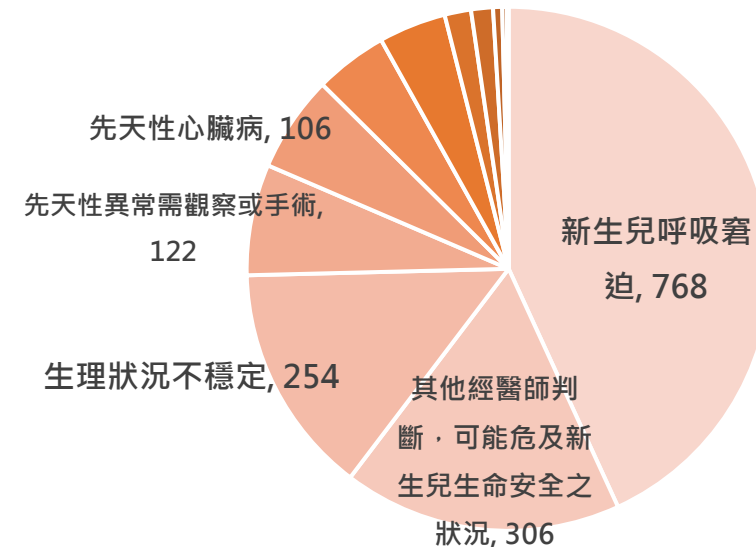
■ 提升轉運安全與品質：

定期辦理教育訓練及年度考核，並監測相關品質指標。

新生兒外接人次



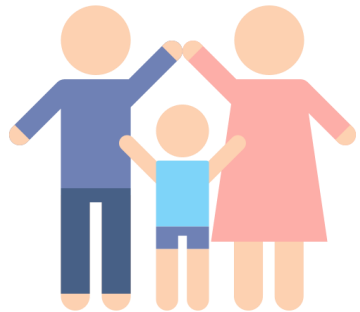
外接原因分析



幼兒專責醫師 | Beyond survival

透過幼兒專責醫師制度之推動，不只強化兒童初級照護與健康管理，更能促進醫療體系、公共衛生、社會福利體系間的合作，提供兒童及家庭全面性的照護支持。

兒童與家庭



幼兒專責醫師



辨識照護需求



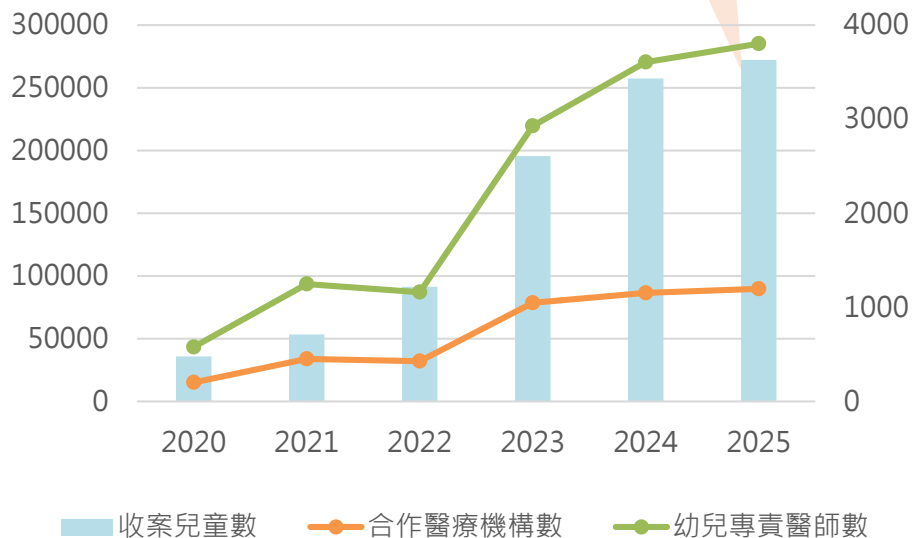
提供相關轉介服務

- ◆ 醫療轉介 (如：膽道閉鎖)
- ◆ 兒童發展篩檢
- ◆ 牙齒塗氟
- ◆ 兒少保護通報轉介
- ◆ 社會福利服務支持

逐步擴大照護涵蓋，並強化高風險兒童照護

109年於6縣市試辦
110-111年增加至10縣市辦理
112年起於22縣市推動，並全面納入
出生之新生兒

- 1,197 醫療院所參與
- 2,605 醫師入
- 未滿3歲幼兒涵蓋率達66%



聚焦脆弱家庭與高風險兒童

指定收案
對象

- 周產期高風險孕產婦(兒)追蹤關懷計畫
- 低(含極低)出生體重兒居家照護計畫
- 社會安全網(出養、安置、脆弱家庭及兒少保護開案服務案件)



強化偏遠地區之布建，確保幼兒可近性照護

確保每個孩子都能有公平且健康的起點。

Beyond implementation

measuring what matters

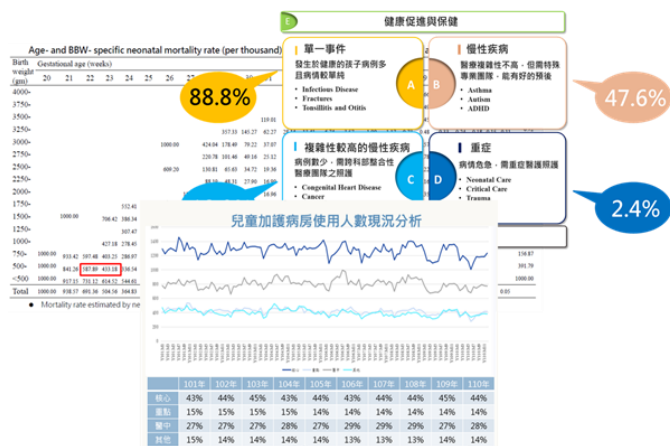
協調管理中心 | keep improving

Network Governance

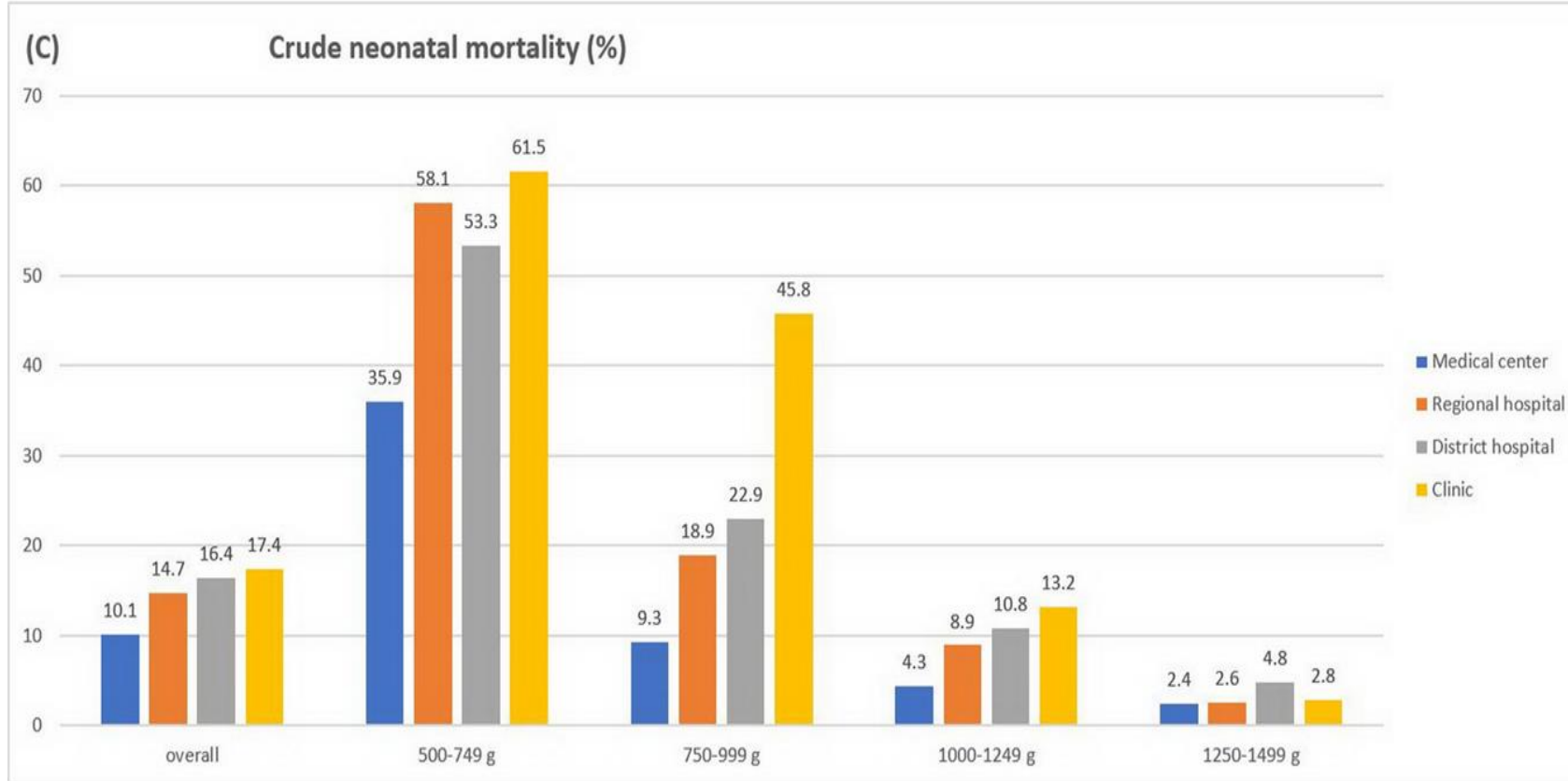
Evidence & Evaluation

Capacity Building

Cross-sector Collaboration



Appropriate care begins before birth



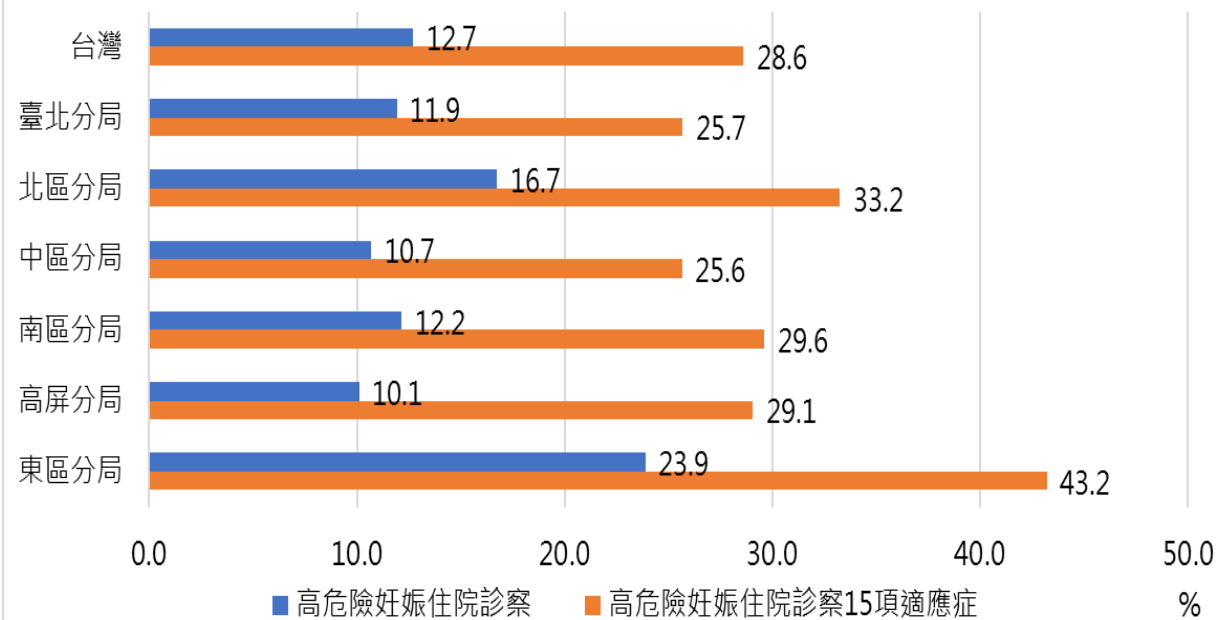
國際上相關分級制度

- 日本的周產期母嬰醫療制度設計三層結構：一般醫院、周產期母嬰地區醫療中心、周產期母嬰綜合醫療中心。
- 英國NHS將嬰幼兒醫療照護的病房分為三級：嬰幼兒特殊照護病房、地區新生兒病房、新生兒加護病房。

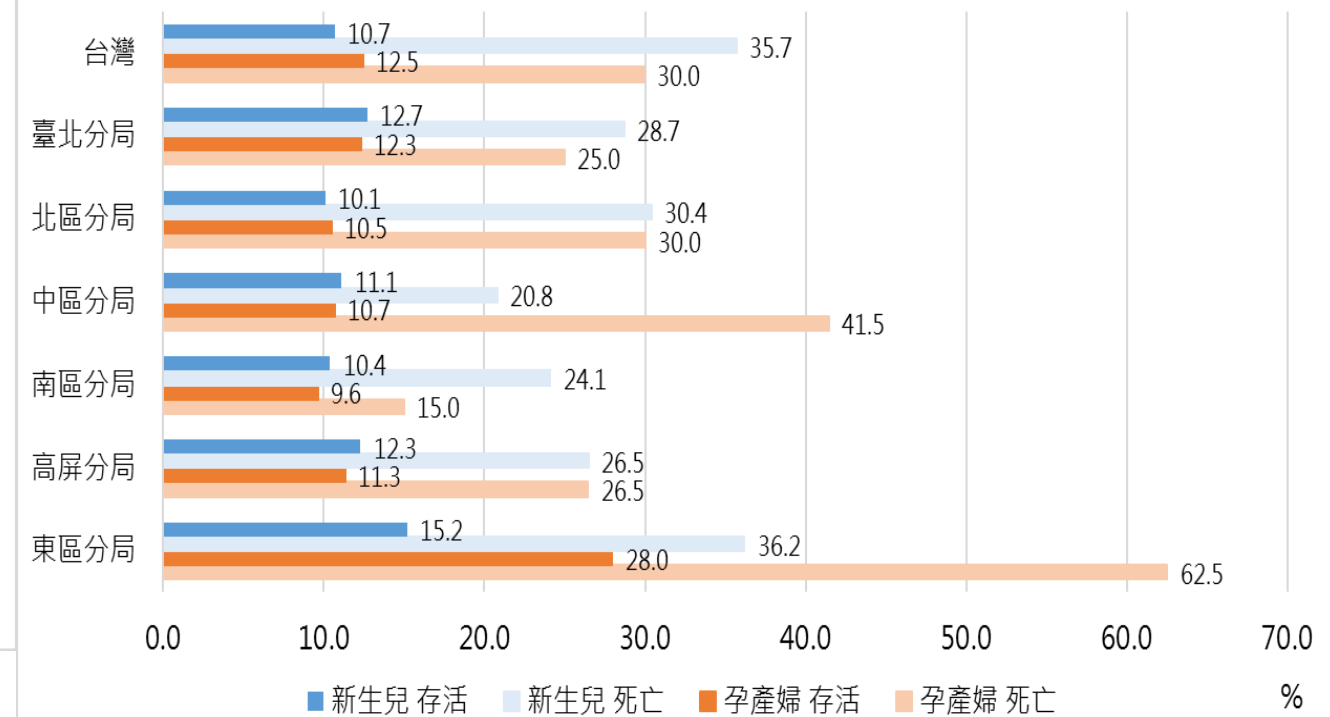
全台灣單胞胎活產出生體重<1500公克新生兒在不同層級別醫療院所生產的新生兒死亡進行多變項迴歸分析：
以醫學中心(MC)為基準、區域醫院(RH)為1.94、地區醫院診所(DH&C)為2.26

Neonatal and infant mortality of VLBW infants in Taiwan: does the level of delivery hospital matter?
Pediatrics & Neonatology, 2021

110-111年高危險妊娠產婦比率



101-110年未達標準產檢次數比率



■ Continuity matters

- Care does not end at hospital discharge.

Better data create better systems



UNITED NATIONS

The Millennium Development Goals Report 2015

- What gets measured gets done
- The MDG monitoring experience has clearly demonstrated that effect use of data can help to initiate development efforts, implement successful targeted interventions, track performance and improve accountability
- *Measure what we treasure !!*

Towards a Learning Perinatal Health System

From building a network to continuously improving outcomes.

How do we make the system smarter?

- Integrated Mother–Child Data Platform: Taiwan has developed many high-quality data systems. The next step is to connect them into a mother–child longitudinal platform to support continuity of care, quality monitoring, and policy evaluation.
- Earlier identification, earlier support: Strengthen risk identification through digital decision support, teleconsultation, and regional referral networks, particularly for rural and resource-limited areas. High-risk pregnancy is not only a medical issue, but also a family support issue.
- Learning Health System: A health system improves only when evidence, quality monitoring, and policy continuously inform each other.

建構整合式母嬰健康照護網絡

Network

布建更完善轉診
照護網絡

- ◆ 提升周產期照護涵蓋網絡
- ◆ 強化雙向轉診與分級合作機制

★提升網絡韌性
與照護可近性

Continuity

強化從孕期到幼兒
的連續照護

- ◆ 落實高危險妊娠產前轉診
- ◆ 強化出生後追蹤與個案管理

★建立連續性
照護模式

Equity

降低區域差異
促進健康公平

- ◆ 支持偏遠地區之醫療量能
- ◆ 優化轉運與遠距醫療服務

★讓每個孩子都
能獲得適切照護

Learning

以實證驅動決策

- ◆ 建立績效指標並監測
- ◆ 進行實證分析與成效評估

★以數據支持策
略與資源配置

跨單位
合作



政府機關
政策支持



醫療機構
專業照護



學協會
專業合作



在地社區
資源整合



家庭與民眾
共同參與

**Every child deserves not only a safe birth,
but also a health system that continues to
learn and improve**

生產事故救濟十週年國際研討會

生產事故救濟條例

與

醫療事故預防及爭議處理法

關 聯 性 分 析

報告人 廖建瑜

臺灣高等法院刑事庭審判長兼法官
國立成功大學法律學博士

民國 115 年 7 月 5 日

分析架構

壹 立法精神與立法架構之相符之處

貳 兩部法律之定義比較

參 條文直接交集（明文引用）之處

肆 疊床架屋之規範重疊問題

伍 兩部法律之潛在衝突

陸 結論與建議

壹

立法精神與立法架構之相符之處

減少糾紛 · 和諧關係 · 國家介入 · 四層次架構

壹 · 一 立法精神之相符

生產事故救濟條例 (104年)

- 承擔女性的生產風險
- 國家建立救濟機制
- 確保及時救濟
- 減少醫療糾紛
- 促進醫病伙伴關係
- 提升女性生育健康及安全

共同核心

減少糾紛

和諧關係

國家介入

醫療事故預防及爭議處理法 (111年)

- 保障醫病雙方權益
- 促進醫病和諧關係
- 改善醫療執業環境
- 確保病人安全
- 提升醫療品質
- 建立妥速爭議處理機制

壹·二 立法架構之相符—四層次對照

架構層次	生產事故救濟條例	醫療事故預防及爭議處理法
1. 說明、溝通及關懷	第4、5、6條	第二章（第6至11條）
2. 爭議 / 救濟處理	第二章 生產事故救濟	第三章 醫療爭議調解
3. 通報、分析及預防	第三章（第22至24條）	第四章（第33至37條）
4. 罰則	第四章（第25至28條）	第五章（第38至42條）

貳

兩部法律之定義比較

「生產事故」與「醫療事故」一定義要件之異同

貳·一 法定定義條文並列

生產事故（條例第3條第1款）

產婦、胎兒及新生兒
因生產所致之
重大傷害或死亡結果

醫療事故（醫預法第3條第1款）

病人接受醫事機構之醫事服務
發生重大傷害或死亡之結果
但不包括因疾病本身或
醫療處置不能避免之結果

受害主體

條例：產婦·胎兒·新生兒
醫預法：病人（單一）

排除條款

條例：無（另設第11條）
醫預法：有但書明文排除

結果要件

條例：重大傷害或死亡
醫預法：重大傷害或死亡

貳 · 二 定義差異之實質影響

1 生產事故是否當然屬於醫療事故？

多數情況可能同時符合兩部法律，但助產機構或居家生產是否符合醫預法要件，文件未明確說明

2 不可避免之生產傷亡—處理差異

醫預法有但書排除，傾向過失歸責；條例無排除，傾向無過失補償精神，兩者性質根本有別

3 胎兒作為主體之銜接問題

條例明列「胎兒」為保護主體；醫預法以「病人」為主體，能否涵蓋胎兒，文件未明確說明

4 因果關係認定標準之落差

條例第11條採「與生產有因果關係或無法排除有因果關係」之寬鬆標準，刻意降低舉證門檻



條文直接交集—明文引用之處

醫預法第6條第5項：唯一直接點名條例的橋梁條文

參 條文直接交集—醫預法第6條第5項

醫療事故預防及爭議處理法 第6條第5項

病人符合藥害救濟法、生產事故救濟條例或傳染病防治法預防接種受害之救濟對象者，
醫療機構應主動提供相關資訊及協助。

>> 醫預法中唯一直接點名條例之條文—兩部法律銜接之制度性橋梁

>> 關懷小組啟動說明溝通時，負有「主動」告知生產事故救濟資格之積極義務

>> 條例之救濟機制得透過醫預法之關懷程序獲得銜接，相互補充而非取代

肆

疊床架屋之規範重疊問題

相同事項 · 雙重義務 · 立法資源之浪費

肆 疊床架屋之規範重疊

重疊項目	條例	醫預法	重疊內容
關懷小組設置義務	第4條	第6條	均要求醫院設置關懷小組進行說明溝通
根本原因分析及改善方案	第22條	第34條	均要求重大事故分析根本原因、提出改善方案並通報
分析內容不得作為訴訟依據	第22條 第4項	第34條 第3項	均設有免責保護條款（醫預法保護範圍較廣）
說明溝通陳述免責保護	第6條	第7條	道歉、遺憾陳述均不得作為訴訟證據或裁判基礎

伍

兩部法律之潛在衝突

時限差異 · 程序競合 · 免責範圍寬窄不一

伍·一 時限規定之衝突

[!] 關懷啟動時限

條例第4條
「2個工作日內」

VS.

醫預法第6條
翌日起「5個工作日內」

> 面對同一生產事故，醫療機構應以何者為準？法無明文，形成實務困惑。

[!] 病歷提供期限

條例第5條
「3個工作日內」
(資料眾多者7日)

VS.

醫預法第10條
「7個工作日內」
(統一標準)

> 兩部法律同時適用，原則期限相差4日，醫療機構面臨雙重法定期限。

伍·二 程序競合與免責範圍差異

[!] 強制調解前置程序與救濟申請之競合

醫預法第15條：提起民事訴訟前應先申請調解（強制調解前置）

條例第11條第4款：已提起民事訴訟者，不予救濟

=> 調解不成立後起訴，是否因此喪失條例救濟資格？兩部法律未見明確銜接。

[!] 說明溝通陳述免責範圍寬窄不一

條例第6條：不得採為「相關訴訟之證據或裁判基礎」

醫預法第7條：另增「不得採為行政處分之基礎」—保護範圍較廣

=> 適用條例時，醫事人員行政處分保護較薄；保護密度落差可能引發爭議。

陸

結論與建議

互補 · 相仿 · 細節落差有待整合

陸 結論—互補而非取代

* 立法精神互補

條例以無過失補償承擔生產風險；醫預法以爭議調解及事故預防為主軸。

* 架構高度相仿

均採四層次架構（關懷 > 爭議 > 通報 > 罰則），顯示一致的立法政策取向。

* 明文橋梁存在

醫預法第6條第5項直接引用條例，使關懷程序成為兩部法律銜接的制度性橋梁。

* 疊床架屋待整合

關懷義務、通報義務、免責保護等規定高度重疊，宜透過修法整合，減少重複。

* 細節衝突待釐清

時限差異、程序競合、免責範圍寬窄不一，有待修法或解釋予以調和。

生產事故救濟十週年國際研討會

感謝聆聽

精神互補 · 架構相仿 · 細節有待整合

chcenyu2@gmail.com

民國 115 年 7 月 5 日

10th Anniversary

生產事故救濟10週年 國際研討會

*International Symposium on
the 10th Anniversary of Childbirth Accident Relief*

JULY 5 2026
SUN

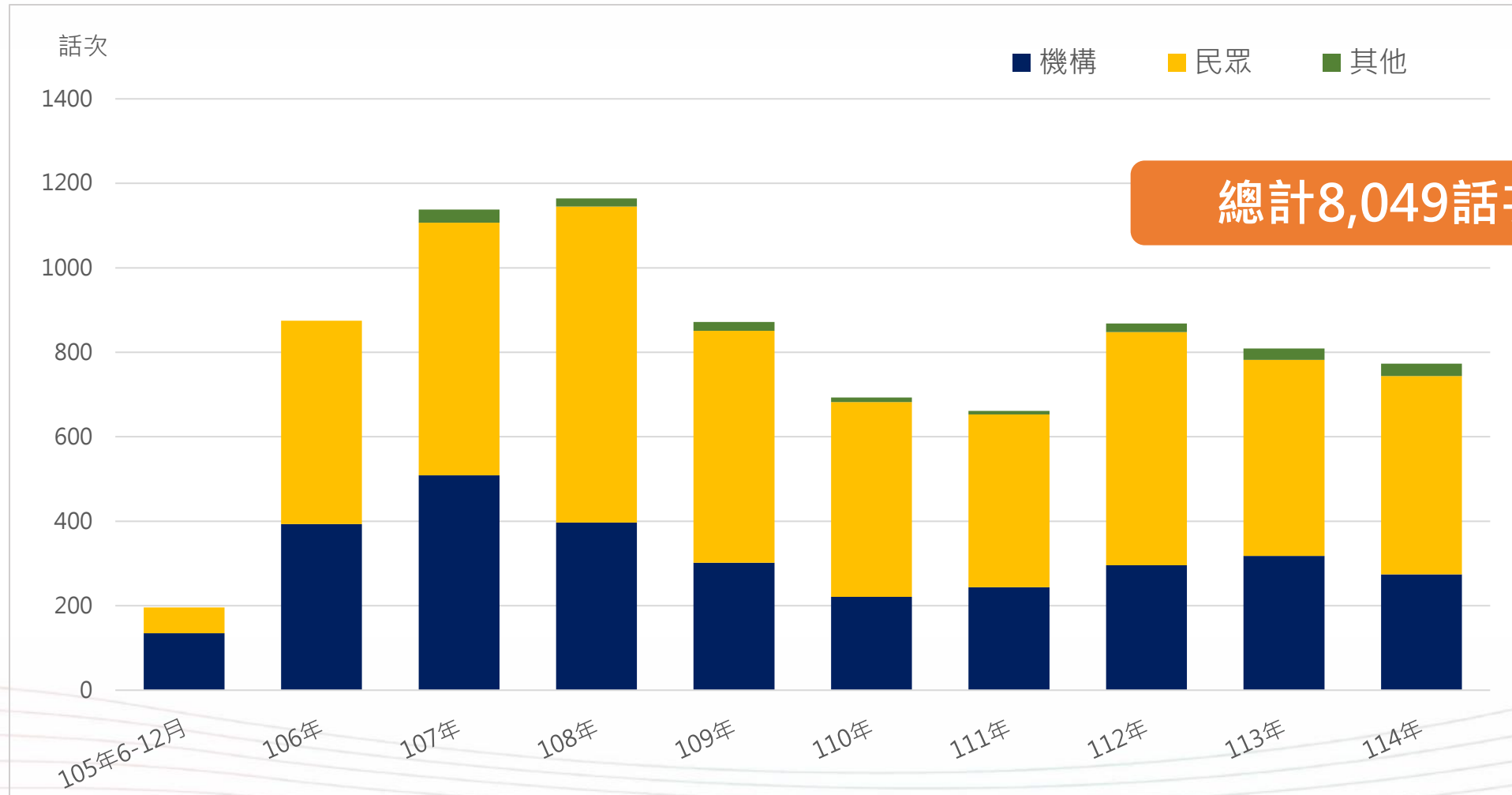
張榮發基金會國際會議中心
CYFF International Convention Center

從止訟到走出傷痛： 生產事故救濟制度的實踐與挑戰

黃閔照

馬偕兒童醫院副院長
台灣婦女健康暨泌尿基金會執行長

生產事故救濟電話諮詢專線



從生產事故救濟條例到醫療事故預防及爭議處理法



婦產科葉光芄醫師
等辦理醫療事故預防及不責難補償制度國際研討會



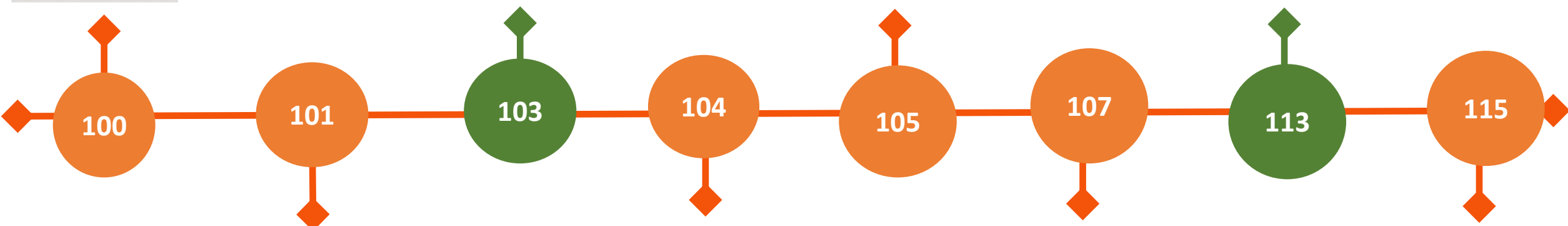
推動醫糾法立法



《生產事故救濟條例》正式施行



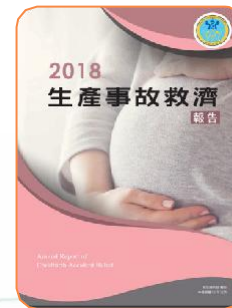
《醫療事故預防及爭議處理法》正式施行



7月5日行政院核定「鼓勵醫療機構辦理生育事故爭議試辦計畫」



立法院三讀通過
《生產事故救濟條例》



首次生產事故救濟報告出刊

《生產事故救濟條例》
施行10周年



生產事故救濟條例

第4條

醫院應設置**生產事故關懷小組**，於生產事故發生時二個工作日內，負責向產婦、家屬或其代理人**說明、溝通，並提供協助及關懷服務**。

診所及助產機構發生生產事故糾紛時，應委由專業人員負責提供前項之關懷服務。

生產事故業務調查_溝通關懷部分

事故發生後提供關懷服務時間及關懷內容

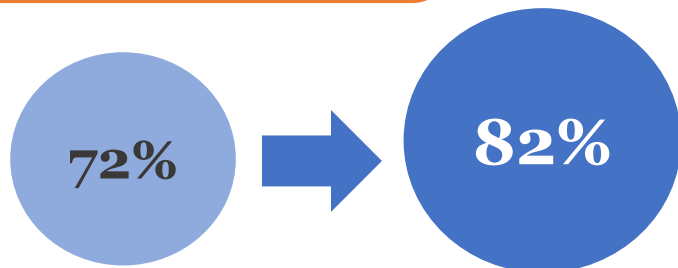
統計114年度資料

	民眾版	機構版
5工作日內關懷	77.6%	97.4%
口頭關懷	81.2%	97.4%
協助申請救濟	73.4%	89.5%
病情解釋	60.6%	94.7%

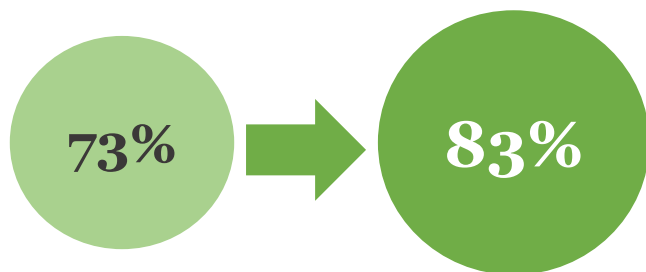
生產事故業務調查 _ 溝通關懷部分

關懷滿意度

統計114年度資料



民眾對於醫療機構所提供之**關懷服務**感到滿意



民眾認同醫療機構提供之關懷服務，
可**促進**與醫療機構間之**溝通與信任**關係



民眾認為醫療機構提供之關懷服務，
能夠**改善**醫病關係

醫療機構覺得執行關懷困難之處

	項目	百分比
1	面對病人/家屬有壓力	76.3%
2	怕引起不必要之爭議或糾紛	52.6%
3	家屬不願意接受院方之關懷	26.3%
4	沒有受過「關懷服務」之相關教育訓練	15.8%
5	機構沒有提供足夠支援系統(包含人員及相關決策)	7.9%

病人及家屬對於提供關懷之回饋意見

	項目
1	醫療機構未提供關懷(包含病情解釋等)
2	醫療機構未協助申請生產事故救濟
3	醫療機構未傳達申請救濟之相關資訊
4	醫療或相關人員態度敷衍
5	表達關懷時機不對，讓人誤解申請救濟的用意

如何拉近病人與醫療機構對於溝通關懷的認知與感受差異

1. 醫病雙方資訊、地位不對等
2. 醫病關係彼此敵對、不信任
3. 民眾認為無法得到認知上的醫療真相(合理解釋)
4. 對醫療機構提供的關懷期待要求更高
5. 道歉等於承認醫療疏失？



如何拉近病人與醫療機構對於溝通關懷的認知與感受差異

1. 如何建立醫病信任關係
2. 主動釋出善意並提供必要協助
3. 強化溝通關懷訓練技巧:
Patient-centered caring
PEARLS model
(Partnership, Empathy, Apology, Respect, Legitimation, Self-efficacy)
4. 不責難文化的建立
表達遺憾
不評斷是非對錯
共同學習共同改善的精神
5. 醫院管理階層的支援與關懷
提供關懷資源
經驗傳承與分享



面對爭議與衝突的5個步驟



實質的傾聽

在生氣與憤怒的情緒上，最好的方法就是讓他們發洩情緒，聽他們說話，透過傾聽逐漸緩和情緒



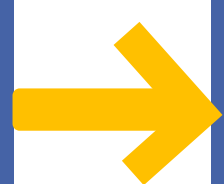
瞭解憤怒的原因

不用急著說明與解釋，先聽對方說，然後給予溫和與簡單的回應，利用開放式問句提出問題協助瞭解憤怒背後的原因



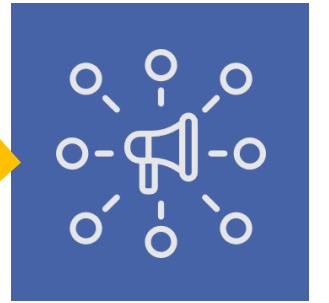
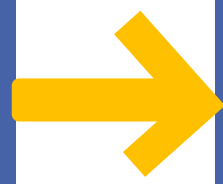
建立信任關係

同理對方的感受，主動釋出善意建立信任關係



回應問題，告知後續處理計畫

針對爭議問題，給予回應並說明目前及後續的處置計畫



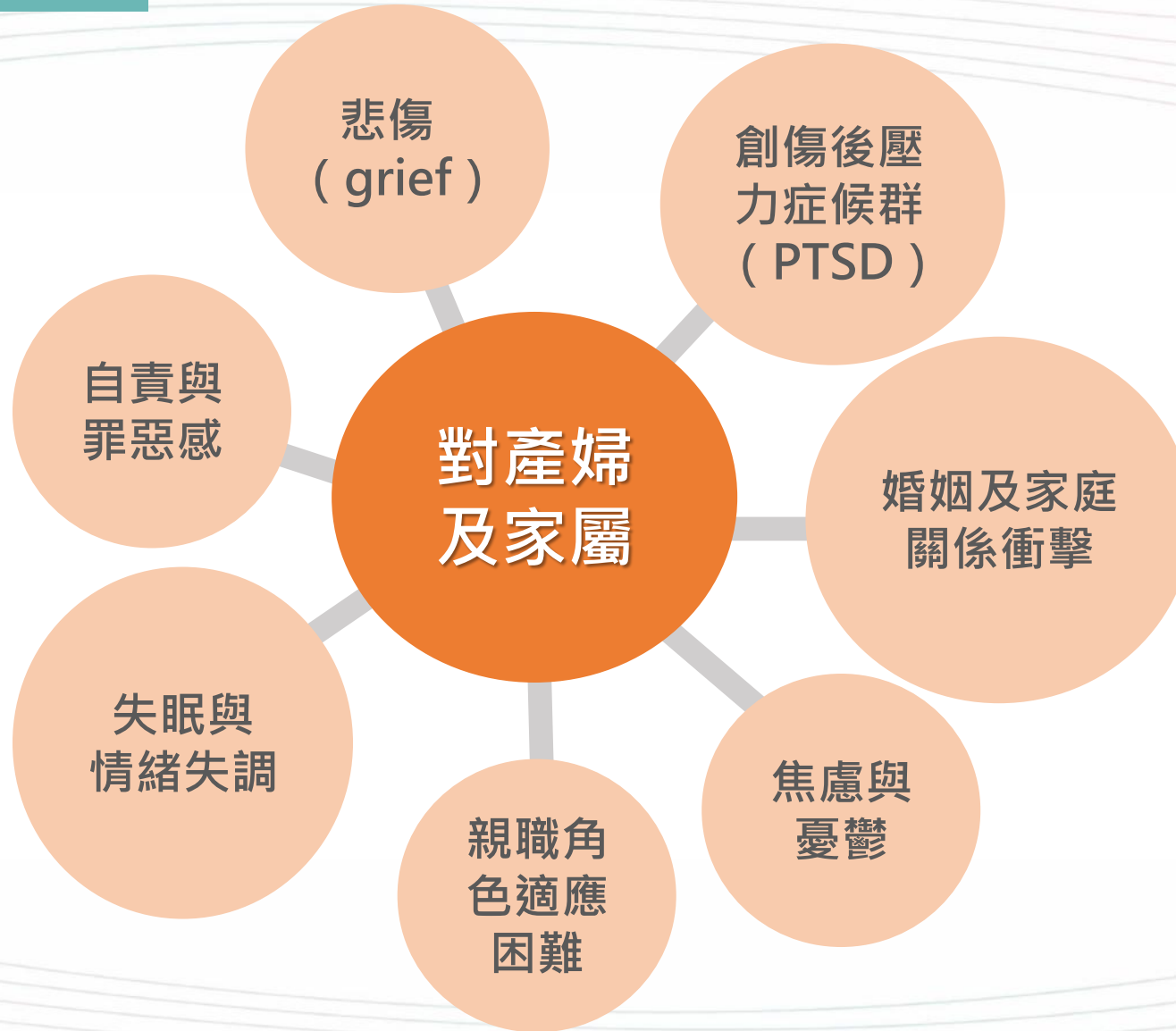
感謝對方提供意見

給予肯定與回饋，同時再次釐清爭議問題及確認對方是否有接收到正確資訊

從 止訟 到

走出傷痛

生產事故後常見心理影響



A **mother** is **everything** for a family

母親不只是照顧者

更是

- 兒童健康守護者
- 家庭照顧者
- 經濟貢獻者
- 子女教育推動者
- 家庭情感支持中心

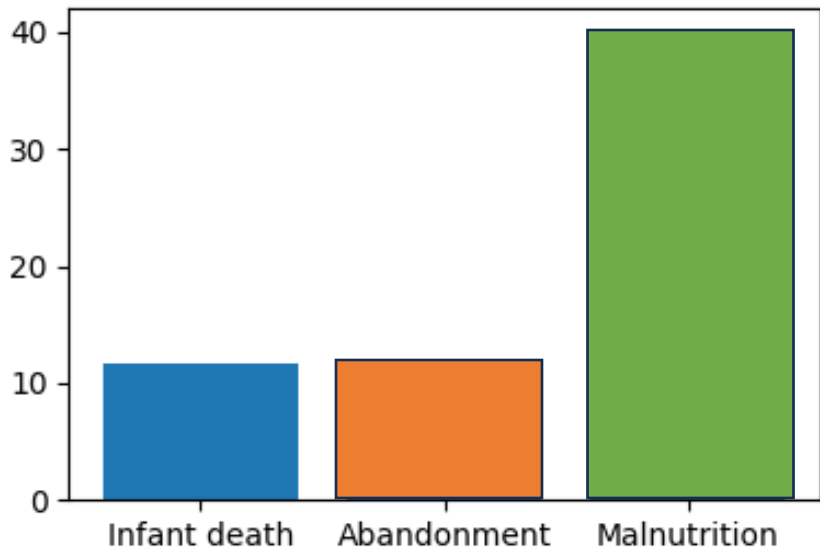


對家庭影響

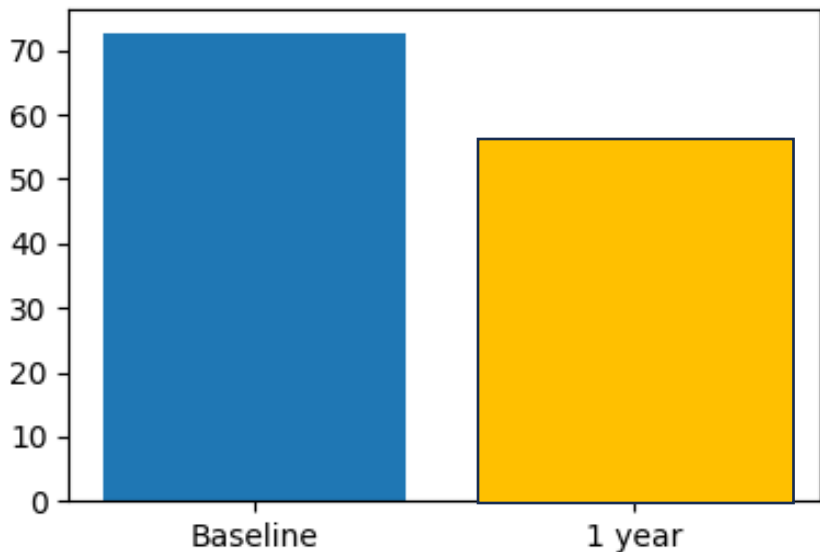
- 新生兒死亡率大幅增加
- 兒童健康照護明顯下降
- 女兒成為第一個受害者
- 家庭經濟惡化
- 家庭破碎

Molla, M., Mitiku, I., Worku, A. et al. Impacts of maternal mortality on living children and families: A qualitative study from Butajira, Ethiopia. *Reprod Health* 12 (Suppl 1), S6 (2015).
<https://doi.org/10.1186/1742-4755-12-S1-S6>

Impact on Infants



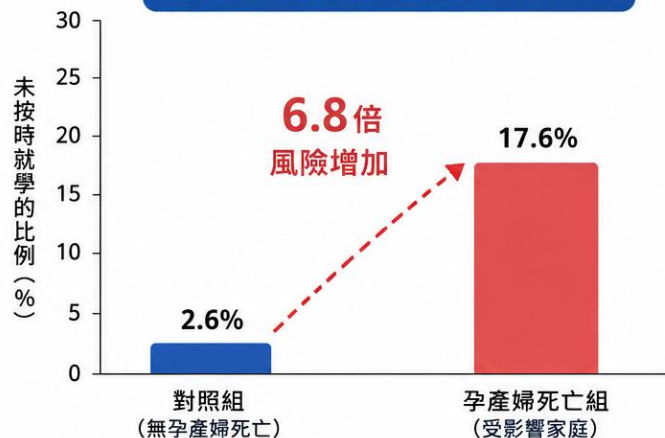
PTSD in Husbands



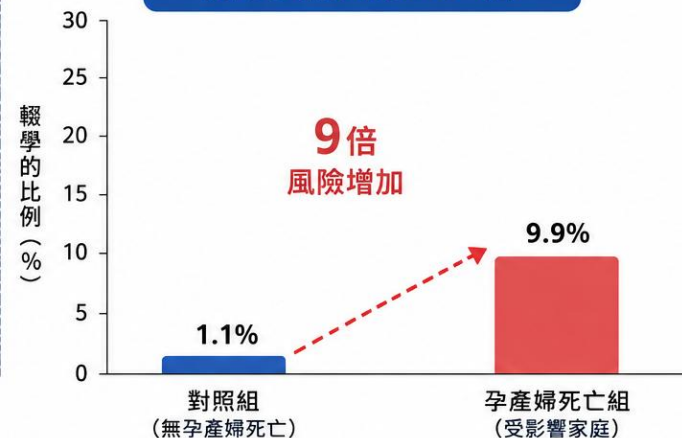
孕產婦死亡對兒童教育的影響 就學延遲與輟學風險顯著增加

Zhou et al., PLOS ONE 2016 | 中國農村前瞻性世代研究 (追蹤1年)

就學延遲風險增加 **6.8 倍**



輟學風險增加 **9 倍**



研究發現：

- 相較於無孕產婦死亡的家庭，兒童就學延遲風險增加 **6.8 倍**
- 輟學風險增加 **9 倍**



可能原因：

- 悲傷與心理創傷
- 經濟壓力
- 缺乏母親督導與支持
- 需照顧弟妹或家務

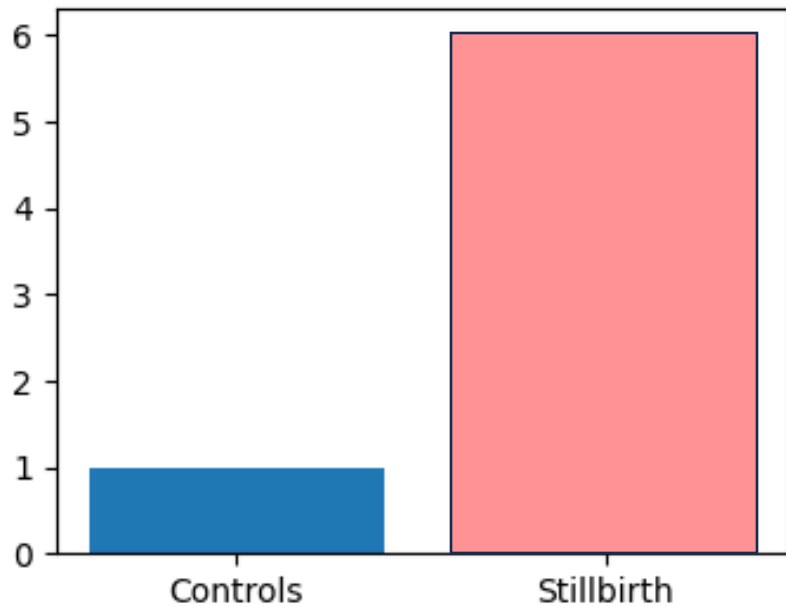


孕產婦死亡不僅影響兒童健康，更嚴重影響教育與未來發展，造成長期的社會與經濟衝擊。

Zhou H, Zhang L, Ye F, Wang HJ, Huntington D, Huang Y, Wang A, Liu S, Wang Y. The Effect of Maternal Death on the Health of the Husband and Children in a Rural Area of China: A Prospective Cohort Study. PLoS One. 2016 Jun 9;11(6):e0157122. doi: [10.1371/journal.pone.0157122](https://doi.org/10.1371/journal.pone.0157122)

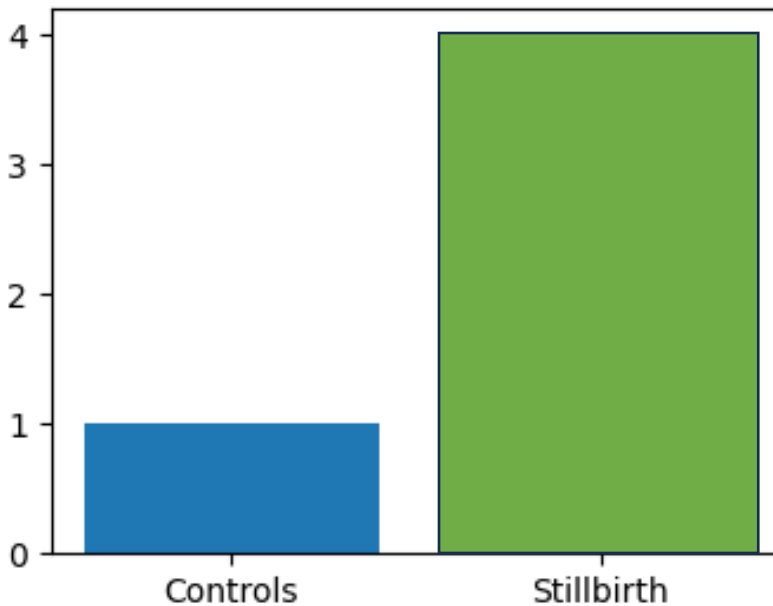
胎兒死產後心理健康影響

Relative Risk of Depression



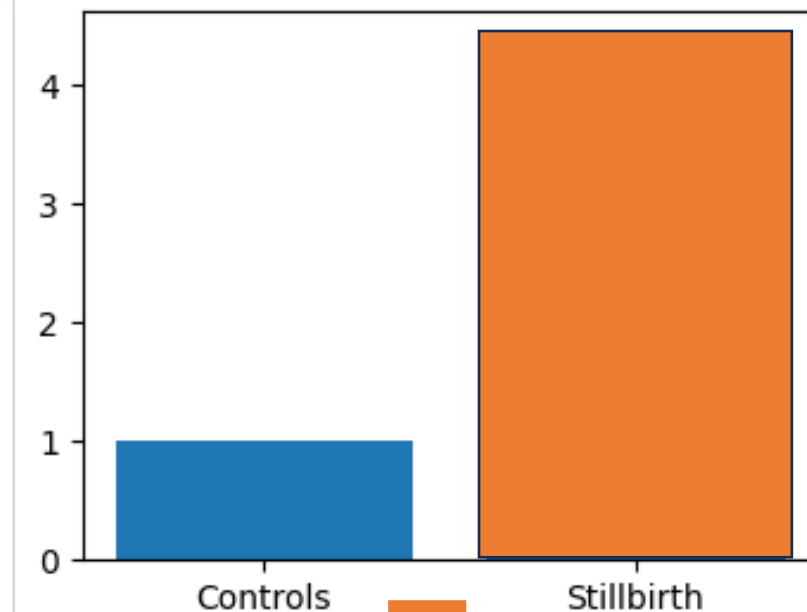
母親憂鬱症風險增加5-7倍
父親憂鬱症風險增加約6倍
產後2-8個月最明顯
部分家庭影響可持續2-3年以上

Relative Risk of Anxiety



母親焦慮風險增加2-5倍
父親焦慮風險增加4-5倍
前2個月最嚴重
可持續超過30個月

Relative Risk of PTSD



約60%母親符合PTSD診斷標準
PTSD風險增加超過4倍
產後3個月症狀最明顯
父親亦可能出現PTSD

胎死腹中或新生兒死亡對父母心理衝擊

母親 (Mother)

- 憂鬱症風險增加 (Depression)
- 焦慮症風險增加 (Anxiety)
- 創傷後壓力症候群 (PTSD)
- 延長性悲傷反應 (Prolonged Grief Disorder)
- 持續的自責、罪惡感與失落感
- 心理影響可能持續數年

父親 (Father)

- 悲傷程度不亞於母親
- 常壓抑情緒並避免表達悲傷
- 較少主動尋求專業協助
- 習慣扮演家庭「支持者」角色
- 心理需求容易被醫療人員及家屬忽略
- 可能出現憂鬱、焦慮及PTSD症狀

支持介入措施 (Support Interventions)



Hospital-based Support

- 尊重與同理溝通
- 分娩陪伴
- 身體照護
- 後續追蹤



Memory Making

- 看見寶寶
- 抱寶寶
- 命名
- 照片
- 手足印紀念品



社區支持措施 (Community Support)



同儕支持 (Peer Support)



喪親諮商 (Bereavement Counseling)



認知行為治療 (Cognitive Behavioral Therapy, CBT)



線上支持方案 (Online Support Programs)

醫療人員
也需要被關心

照顧好自己
同樣重要



我們一直都在

謝謝你
辛苦了
😊

你很重要



堅持的力量



媽媽的信任是我們最大的動力

周天鎰 / 天綸婦產科診所院長

相信這是這位媽媽一段刻骨銘心的歷程。

第一次懷孕時，她滿心喜悅，期待孩子的到來；然而，當醫師告知「胎兒沒有心跳」的瞬間，世界彷彿全然崩塌。隨後，診所安排了引產，她身體所承受的疼痛，與內心的空洞，交織成一種難以言說、卻深刻存在的失落。

那段時間，醫師沒有迴避，而是溫柔地陪伴，承接她的傷痛，也給予情感上的支持，讓她在悲傷痛苦之中，感受到有一雙手可以握住，一起走出難關。

儘管經歷第一胎不幸的打擊，她仍選擇相信醫師，繼續再次回到熟悉的診間。因為醫師在困境中沒有缺席，始終以關懷與耐心陪伴，當她悲傷時，不讓她孤單。醫師也輕聲對她說：「下一胎懷孕時，若有任何擔心，隨時回來找我們。」

是的，當她懷上第二胎時，再次回到我們診所進行產檢，這是信任，在失落之後仍願意再次託付，也是醫病之間的特殊緣分，感謝她堅定的選擇，繼續讓我們陪她一路同行。這份互信，不僅體現醫病緣分間的溫度，也是政府對母嬰健康持續守護的用心與期待。

託付第二段旅程 是醫病緣分的溫度

因著這珍貴的緣分，在整個孕程中，醫師給予專業照護，用心與細緻的關懷，陪伴她度過每一個不安與期待交織的日子。終於，當生命的哭聲響起，愛與勇氣交織，當初流下的失落淚水，化作迎接新生的笑容。她的第二個孩子，順利來到這個世界。

每一段懷孕旅程，都是勇氣與愛的開始。面對生產過程中的不幸事件，政府的補助



生產事故無過失 補償為產科注入 正能量

何信頌 / 東和婦產科診所

在五大科皆空，婦產科淪為年輕醫師選科倒數第二志願的時候，是什麼讓婦產科醫師還能夠留在接生這個崗位呢？那是在接生小孩子，迎接新生命的那種喜悅。

然而，這個醫滿一個家庭的成就感，卻長期以來面臨產科工作環境高風險、高壓力的現實考驗。隨著社會意識抬頭、醫療資訊透明化，以及民眾對醫療品質要求的提高，產科的醫病關係日益緊張，一旦發生醫療事故，對新生兒及家庭的衝擊甚大，也往往引發高度關注與爭議。

產科有其難以預料的狀況，我們相信醫師從來都不希望任何不幸的事情發生，但站在家屬的立場，當善事變成悲劇，未必能夠體諒醫師的心血，甚至有一些情緒性的動作，這對守護母嬰安全的醫師造成很大的打擊，產科醫療糾紛與訴訟壓力往往造成第一線醫療人員的沉重負擔，進而影響醫療行為與醫病溝通品質。

一件不開心的事，可能就會讓台灣再少一名願意接生的產科醫師。

如何在保障病患權益與醫師合理責任之間取得平衡，成為婦產科醫療發展無可迴避的重要課題。

尋求病患權益與醫師責任的合理平衡

傳統論責任歸屬的醫療賠償，有其侷限性；病患需舉證醫師過失、訴訟曠日廢時；醫師則因擔憂被告而選擇防禦性醫療，最終醫病雙方均受其害。為改善此一困境，政府推動生產事故救濟制度，以「無過失補償」為出發點，也就是不需要證明醫師過失，只

負重前行

陳醫師 / 婦產科醫師（尊重作者隱私，採不具名刊載）

空無一人的深夜街道上，一個急匆匆的身影全力奔向醫院。警衛還來不及確認身分，那身影邊跑邊說：「去接生！」

產房傳來新生兒的哭聲，隨之而來的是醫療人員忙進忙出，直到一切歸於平靜。手抱新生兒的產婦看著孩子，一旁的先生在醫師說明完產後注意事項後，向醫師說：「醫師，謝謝您。」

那是一場驚險的生產，在醫療團隊的全力合作下，終於化險為夷。他們開心地與產婦及新生兒拍下大合照。

醫師拿起放在一旁的外套準備回家。口袋裡掉出一張小紙片，護理師撿起來說道：「咦？忘年會的抽獎券怎麼在這裡？」醫師望著那張紙，若有所思地說：「如果一個人一生的運氣有定數，遇到需要用到運氣的事，我都會放棄。希望能把好運都留給病人，讓病人平安。」說完，醫師走出產房，停在走廊盡頭，望著窗外的曙光，眼裡的淚水靜靜流下。

這位醫師不是唯一一位，協助病人度過一場驚險分娩的醫師；也不是唯一一位，不斷要求自己精進知識與技能，讓醫療工作的努力能達到最好。在生活中有許多小小的堅持與信仰，只是希望把最多的好運留給病人，讓理性的努力，與冥冥之中的運氣，一同守護病人的平安。

傾盡努力 願把最多的好運留給病人

和所有婦產科醫師一樣，產檢的孕婦，不只是「產婦」，而是一位懷胎十月、歷經生理與心理磨練的偉大「母親」。長達十個月的陪伴，了解的不只是產婦的健康狀況，也熟悉她們的個性、家庭與對胎兒的期待。當家屬把珍貴的家人交到醫師手上時，承接的是守護的承諾。產婦與家屬的信任，讓醫師願意在深夜出門接生、在假期中放下行程返回醫院，全力守護她們。

