Prevention of stillbirth: audit?

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Disclosure: chair Natl. Committee for Perinatal Audit

IMPACT: Implementation of structural feedback by means of perinatal audit to caregivers of cases of perinatal mortality in the northern part of the netherlands

ZOBAS

Groningen Center for Perinatal Mortality

international stillbirth alliance

ACTion

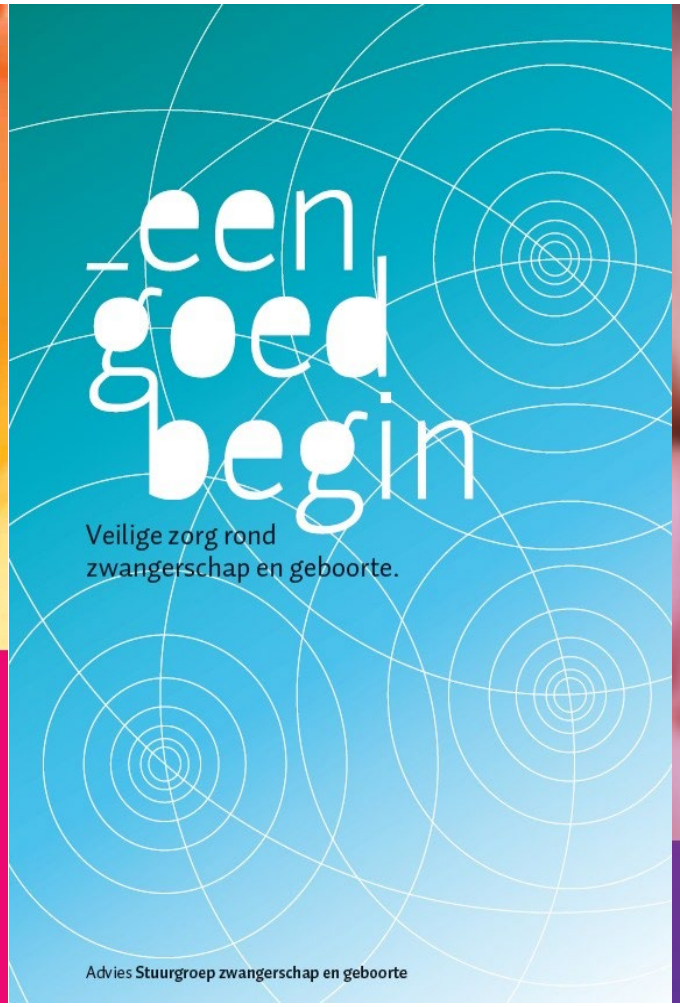
umcg

ZonMw

SHARE Graduate School for Health Research

Reproductive Origins of Adult Health and Disease ROAHD WWW.ROAHD.NL

PERINATALE AUDIT PAN NEDERLAND



Government committee:
“a good start”, dec 2009

How do we improve our care to prevent Perinatal mortality?

and

To care for parents?

“Causes” or “relevant conditions”

- congenital malformations
- placental problems:
  - fetal growth restriction, preeclampsia, placental abruption, hypoxia during labour
- preterm birth
- infection
- other: hydrops, maternal disease, trauma
- unknown

Sub standard care factors (10-20%)

Often more factors contribute, riskfactors

“many small things make big disasters”

All more prevalent in underprivileged populations

THE LANCET

January, 2016 www.thelancet.com

Ending preventable stillbirths

An Executive Summary for *The Lancet's* Series

"At the core of public health programmes for women's and children's health... high quality antenatal and intrapartum care protects the mother and her baby, and represents a quadruple return on investments, saving the lives of mothers and newborns, preventing stillbirths, and additionally, improving child development."[1]

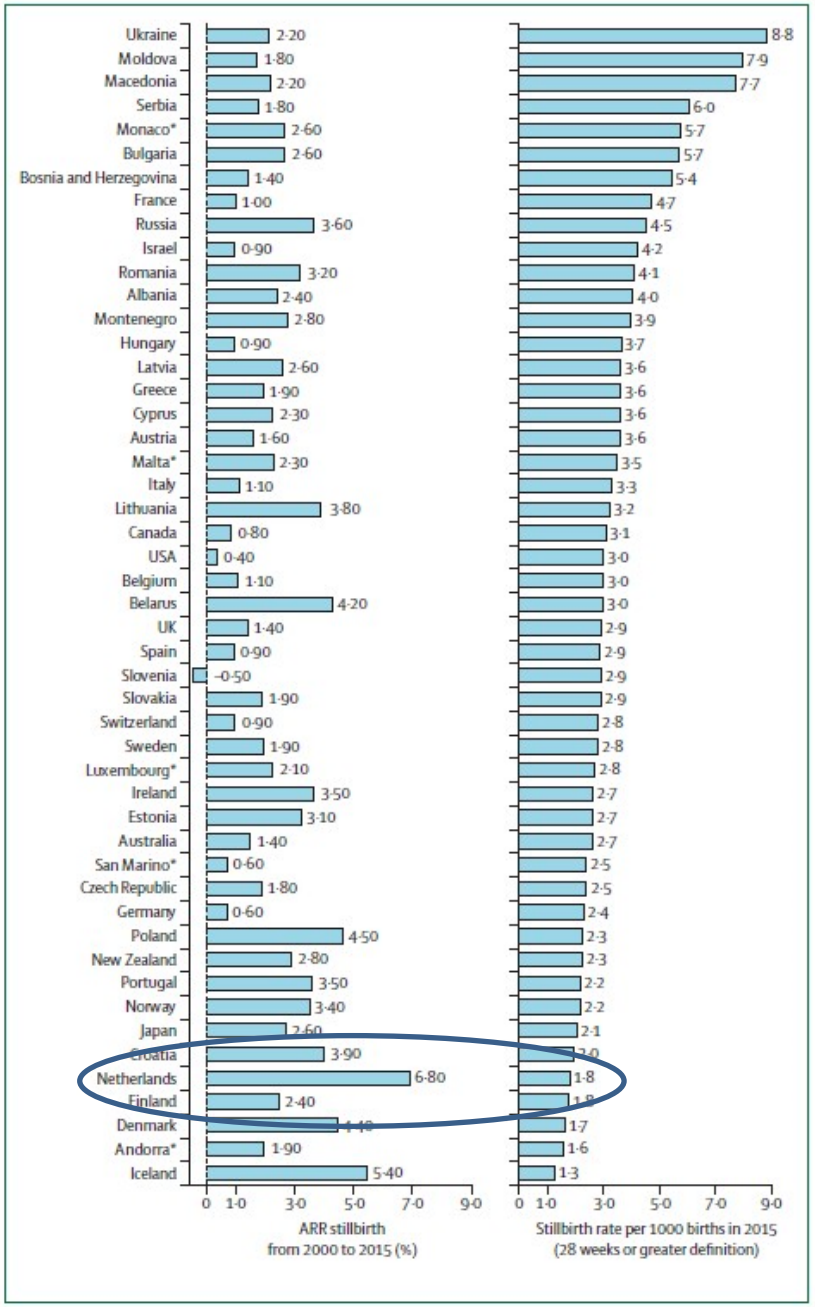


Figure 1: **Present stillbirth rates and reductions since 2000 in high-income countries**
ARR=annual rate reduction. *Countries with less than 5000 annual births.

Mechanisms: (???)

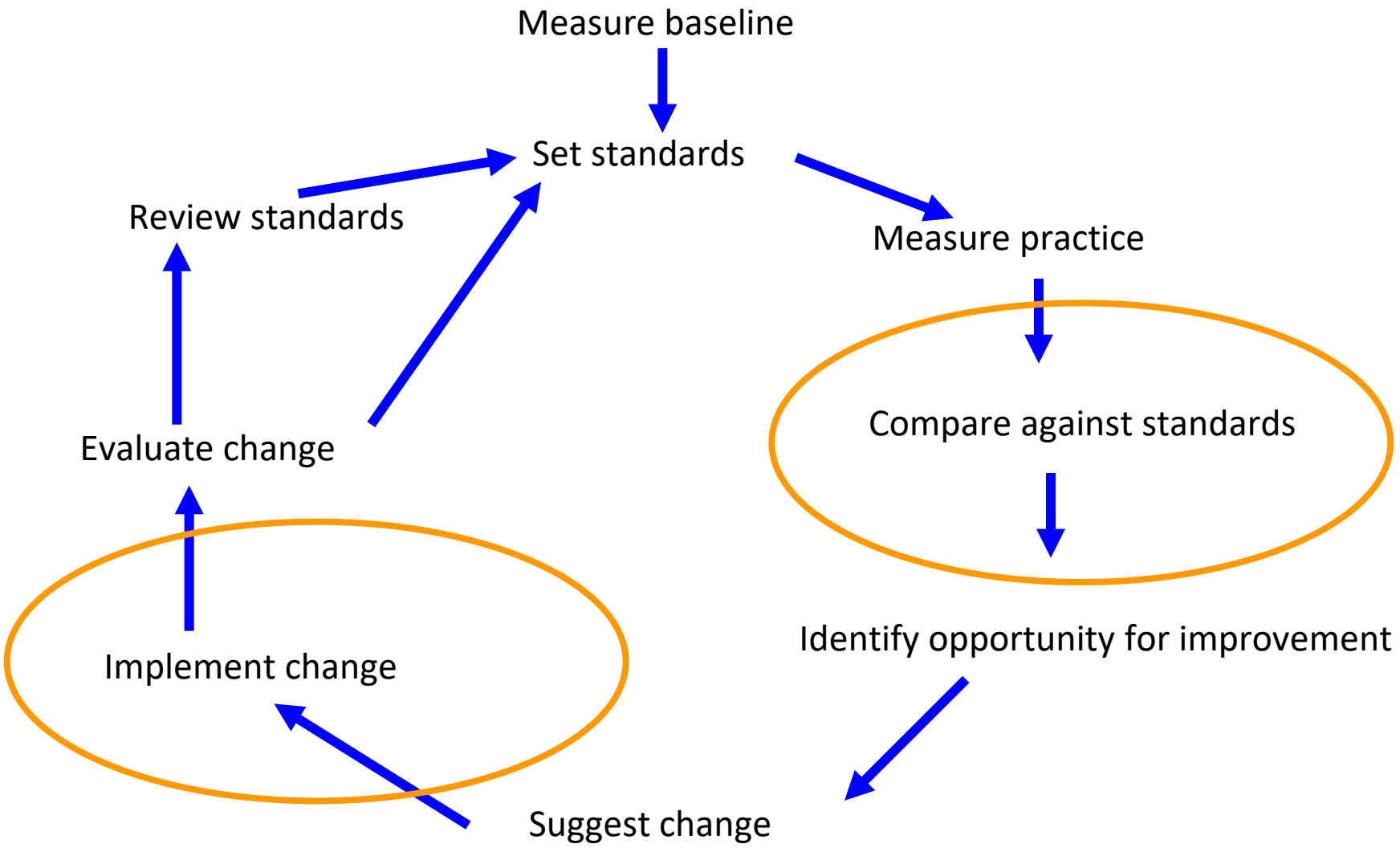
Several elements working together, from several sources:

- Better cooperation between primary care midwives and gynecologists in hospital
- Faster referral and action protocols in case of obstetric emergencies
- Awareness on decreased fetal movements (1st combined guideline Colleges Midwives and Gynecologists)
- Better, by education, fetal monitoring
- Higher uptake of prenatal screening, and higher effectivity of programs (more TOP)
- Less multiple gestations
- Structured perinatal mortality (and now morbidity) audits in all obstetric units in NL (about 70) which identified improvement-issues

Joined effort (2006) of Government and Professional colleges: Pathology, Midwives, General Practitioners, Pediatricians, Gynecologists

2009-2012 focus on Term perinatal mortality
2013-2015 focus on Peripartum asphyxia
2016-2019 late preterm added
2019-2023 hyperbilirubinaemia added
2024-2027 early neonatal collaps and couple's request for care outside guidelines

The Auditcycle



Improve quality of care by an AUDIT procedure, review of what happened

Evaluate care-process

Analysis of Sub-standard care factors

We want to learn

Where should our care
have been different?

Deviation from protocols, guidelines
or “normal” care

Medical errors


scary
difficult
terryfying
litigation
forbidden

What went well?
What should we have done different?

substandard factors

why did they occur?

Root Cause Analysis methodology

mostly several factors

define improvements

IMPLEMENT IMPROVEMENTS

Requirements:

How do we talk about medical errors? EMOTIONS!

Climate:

Respectful, friendly, open minded, unthreatening

Non judgemental

Focussed on behaviour

Observed facts

Independent chairperson

Training

- Local multidisciplinairy Perinatal Mortality audit meetings are feasible and succesfull
- Independent, respected chairperson

- Teams need to be trained in advance, methodology and communication

- Emotions are good, everybody makes mistakes, peer-support

- Proper preparation for each case, takes time and personnel

- Suggestions for improvement of care need to be implemented to sustain the positive quality cycle

Challenges:

mainly organisational

medical view versus proces (audit)

However, internal motivation present !

Any tool should be simple

Evaluate, feed back and celebrate success

Role of the parents

Reduce risk factors:

sometimes care-issues, good medication, treating hypertension

BUT mostly public health issues:

Under priviliged groups in your society, lower social class

SMOKING!!!

Older age

Obesity

RESEARCH ARTICLE

Suboptimal factors in maternal and newborn care for refugees: Lessons learned from perinatal audits in the Netherlands

A. E. H. Verschuuren[1]*, J. B. Tankink[2], I. R. Postma[1,3], K. A. Bergman[4], B. Goodarzi[5,6,7,8], E. I. Feijen-de Jong[5,8,9,10], J. J. H. M. Erwich[11]

Fig 1. The Three Delays Model [15, 16].

https://doi.org/10.1371/journal.pone.0305764.g001

Conclusion

The number of suboptimal factors identified in this study and the extent to which they contributed to adverse perinatal and maternal outcomes among refugee women is alarming.

prevention

Proper registration

Improve quality of care

Reduce risk factors

What is the care management problem?

What happened (sub-optimal factor) ?
What was the situation ?
Why did it happen ?
(factor analysis: human, patient, team, tasks,
work-environment, management, medical devices)
What was the relevance to the death, recurrence risk ?
What are the conclusions ?
What needs to be done to prevent it ? (SMART)

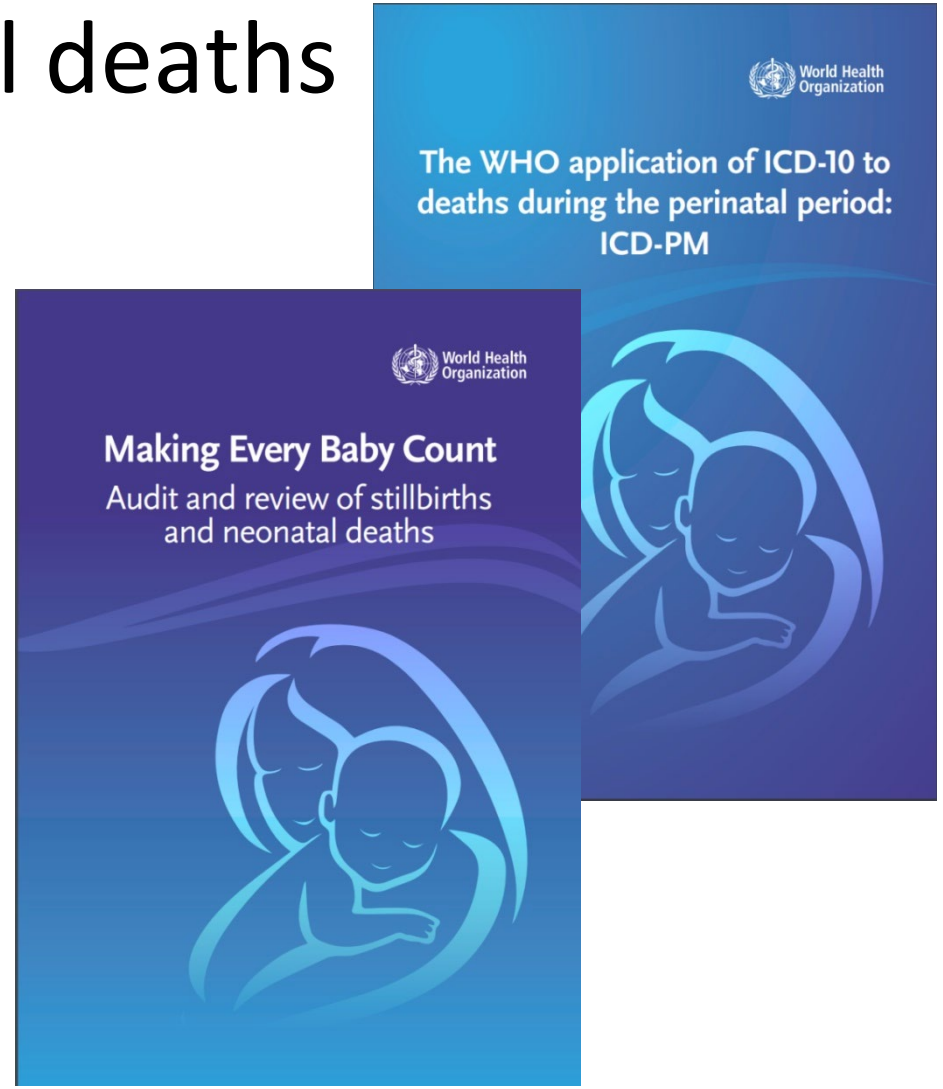
Specific
Measurable
Acceptable
Realistic
Time-frame

Risk management

- risk-assessment
- reduce risk-factors
- optimal antenatal care
- fetal growth assessment
- fetal monitoring (kick charts?)
- interventions (research/ EBM)
- evaluation and audit
- recommendations
- actions

Launch of WHO guide and classification for perinatal and neonatal deaths

- **Response is critical to end preventable mortality**
- Making Every Baby Count: Audit and review of stillbirths and neonatal deaths
- The WHO application of ICD-10 to perinatal deaths: ICD-PM

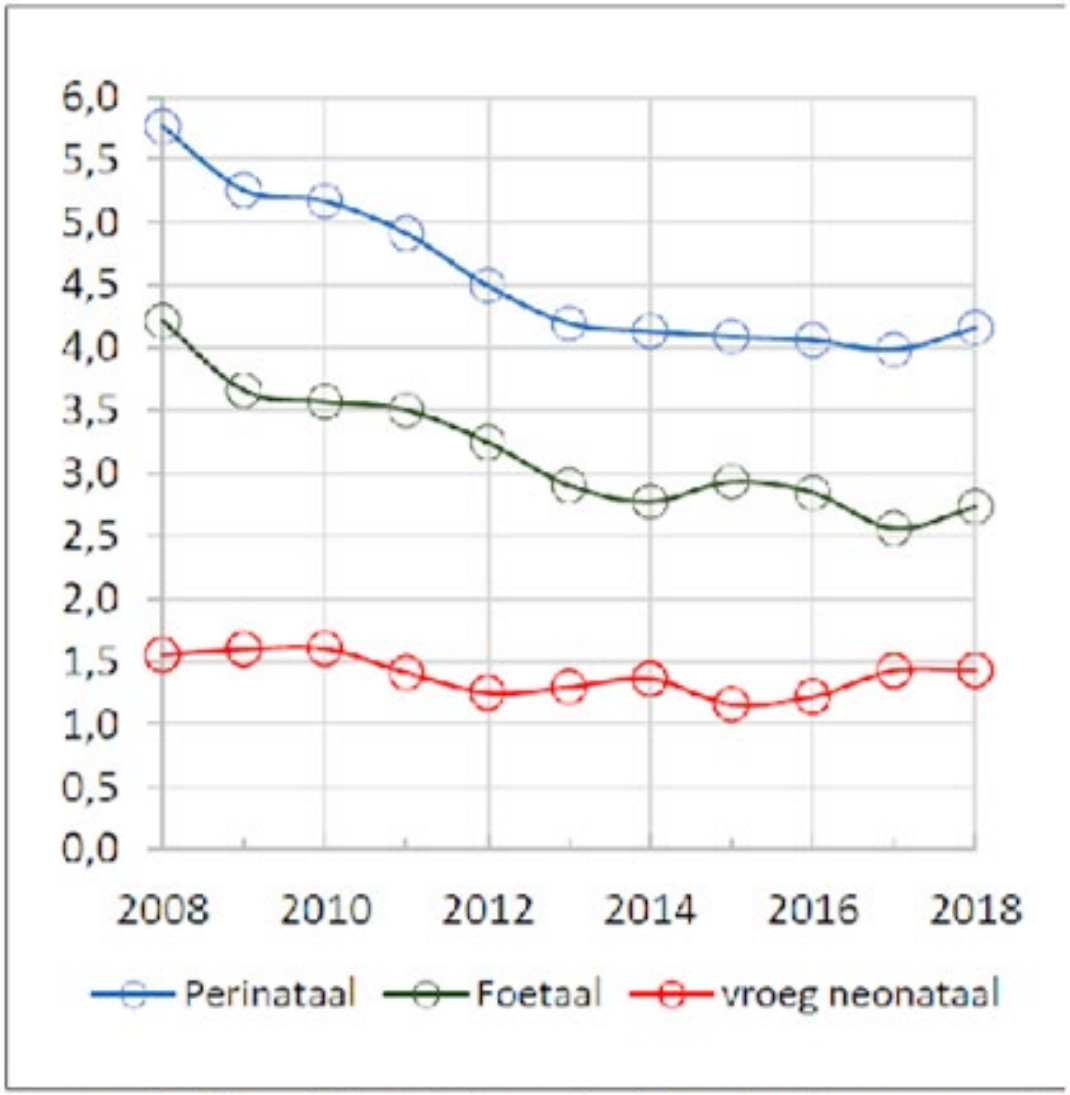


Reduction in Fetal death in Singleton pregnancies, 2009 vs 2014,
The Netherlands (www.perined.nl)

GA	2009			2014			
Weeks	n	n*	per 1000	n	n*	per 1000	reduction %
22-24	321	455	706	260	418	622	11.8
24-37	396	10111	39.2	290	9398	30.9	21.2
37-42	229	161496	1.42	168	157211	1.07	24.6
Unknown	40	2233	17.9	16	2646	6.05	
Total n without 22-24 weeks and unknown:							
	625	171607	3.64	458	166609	2.75	24.5

Difference between proportions: 0.9/1000 (95% CI 0.5-1.3/1000)
at 170000 deliveries /year:
85-221 cases less

*(total alive and death births for those Gestational Age (GA) weeks, singletons)



Figuur 3.2 Trend in totale perinatale sterfte voor eenlingen (>24wkn/7dgn; per 1000 levend- en doodgeborenen). Bron: Perined.