Keeping our babies safe:
Sudden Infant Death and safe sleep through an Aboriginal lens
Speakers:

Speaker: Lucy Barney.
- Provincial lead, Aboriginal Health, Perinatal Services BC, PHSA
- Maternal Child Health Committee, FNHC
- Lillooet First Nation

Speaker: Tansey Ramanzin
- Child Death Review Unit, BC Coroner Service
- Chair, Aboriginal Safe Sleep Working Group
What will we cover today?

- Sudden Infant Death- What it is and what it isn’t
- Aboriginal people and Sudden Infant Death
- Risk and protective factors
- Cultural and social considerations
- Recommendations- The “Take Home” message.
- The Aboriginal Safe Sleep Working Group
Definition: The sudden unexplained death of an infant under 1 year old, which remains unexplained after:

- Review of baby’s history
- Scene investigation
- Autopsy examination

These deaths may be called Consistent with SIDS (sudden infant death syndrome) or SUDI (sudden unexplained death in infancy), depending on the circumstances of the death.
Sudden infant death: What it is...

- A significant part of total infant mortality and the **leading cause of death** in babies 1 month – 1 year of age around the world

- A diagnosis of exclusion (once everything else is ruled out)

- Unexpected

- Appears to be associated with sleep

- Sometimes called crib death, though it may not happen in a crib

- A death with no real answers, that leaves parents, families and communities grieving
Sudden infant death: What it isn’t...

- Predictable, though some circumstances are more risky than others
- Something that only happens to babies that are premature, or poor, or sick...
- Contagious or infectious
- Caused by choking, vaccinations or allergies
- The cause of every sudden unexpected infant death
Aboriginal people and Sudden Infant Death

- In Canada and around the world, First Nations, Aboriginal and indigenous peoples are overrepresented in sudden infant death statistics. In every country, FN, Aboriginal or indigenous babies die more often than babies of people who are not FN, Aboriginal or indigenous.

- A 5 year review of sudden infant deaths conducted by the Child Death Review Unit of B.C. found that Aboriginal infants accounted for 30% of sudden infant deaths in B.C. from 2003 to 2007, despite making up only ~8% of the infant population. This means that the Aboriginal infant death rate was almost 4 times higher than the rate for other B.C. infants.
The Tripartite First Nations Health Plan is based on the Transformative Change Accord. It contains 29 actions in 4 areas where First Nations and the Province will collaborate to close the health status gap:

- Governance, Relationships and Accountability
- Health Promotion / Disease and Injury Prevention
- Health services
- Performance Tracking

The Transformative Change Accord: FNHP can be found online at: [http://www.nccah-ccnsa.ca/docs/social%20determinates/FirstNationsHealthImplementationPlan_Combo_LowRes.pdf](http://www.nccah-ccnsa.ca/docs/social%20determinates/FirstNationsHealthImplementationPlan_Combo_LowRes.pdf)
Transformative Change Accord: FNHP

Health Promotion and Disease and Injury Prevention. Action Plan includes:

First Nations and the province will follow-up on the 2005 Child Death Review Unit report recommendation that....

“all levels of government, educators, parents, and Aboriginal leaders and their communities forge new relationships led by the Aboriginal people to address the results of this report that clearly illustrate that Aboriginal children are dying at disproportionately higher rates.”
What causes sudden infant death?

• Don’t know for sure.

• There may be differences in the brains of babies who die.

• Research has shown there are risk and protective factors that make it more or less likely a death might happen.

• Some deaths may be due to asphyxia (something interfering with the baby’s ability to breathe properly.)

• Many people think of these deaths using the Triple Risk Model*. 

What are risk factors?

- Features or factors associated with an increased risk of a particular outcome. They are different than causes.

- Correlational (not causal) -- they are related or associated to the outcome, but the risk factor does not necessarily cause the outcome.

- Can be aspects of:
  - personal behaviour or characteristic (risky behaviour)
  - lifestyle (smoking, drinking)
  - environmental exposure (unsafe water sources, poverty)
Triple Risk model

- Vulnerable baby*
- Vulnerable age*
- External factor*
- SID

In theory at least 2 are present at the same time, and lead to sudden death.
What makes a vulnerable baby?

• Male.

• The theory is that some babies have a slight abnormality in an area of the brain that controls their breathing, pulse, temperature, and ability to awaken from sleep.

These are both non-modifiable risk factors – they cannot be changed. The 2nd factor also cannot be seen, so we don’t know what babies might be vulnerable.
What is the vulnerable age?

- Most cases happen between 2-4 months of age, and 90% happen before 6 months of age.

- The possible abnormality in their brain may make babies most vulnerable now, as the brain tries to organize its control over sleep/wake periods and vital functions like breathing and heart beat.

These are also non-modifiable risk factors – they cannot be changed.
External factors?

• These are situations a “normal” baby might easily be able to handle, but that a vulnerable baby might not.

• Examples include:
  - prenatal and postnatal exposure to tobacco smoke
  - prone (tummy) sleep
  - soft mattresses
  - soft or loose bedding
  - bedsharing
  - recent viral illness

Many of these are possibly modifiable risk factors – they can be changed with a change in behaviour or a different choice. Making safer choices can decrease your baby’s risk.
Risk factors for sudden infant death

We will talk about of them as related to:

1. The baby
2. The mother
3. The environment
Risk factors related to the baby

- **Male sex:** Males more than females (60% vs 40%)

- **Young age:** Deaths are most common at 2-4 months of age; 90% happen by 6 months of age

- **Prematurity:** Less than 38 weeks pregnant (~8 months)

- **Low Birth weight:** Less than 2500 grams (~5½ pounds)
Risk factors related to the baby

- **Multiple pregnancy:** Twins or higher
- **Recent viral illness:** Cold or flu-like symptoms
- **Aboriginal:** First Nations, Aboriginal and Indigenous peoples have higher rates of sudden infant death.
Risk factors related to the mother

- **Low income**: Poverty leads to higher risk of infant death overall, and sudden infant death.

- **Inadequate prenatal care**: Prenatal care influences birth outcomes, and affects infant mortality as a whole.

- **Substance use**: Using tobacco*, alcohol or drugs before & after birth puts babies at risk.
Risk factors related to the mother

- **Young maternal age & lower maternal education level:** Teen moms or moms with less education have babies with higher risk

- **Obstetrical history:** Shorter spacing between pregnancies leads to increased risk sudden infant death
Risk factors related to environment

- **Stomach sleep**: Sleeping on the tummy*

- **Sleep surface not designed for babies**: Cribs are safest

- **Unsafe consumer products**: New crib regulations

- **Cluttered sleep environment**: Objects in the sleep area, (bedding, toys, pillows...)
Risk factors related to environment

- **Overheating**: Heat loss is determined by room temperature, external heat sources, clothing, bedding, sweating, and sleep position.

- **Tobacco smoke**: Exposing baby to smoke before and after birth increases risk, even if smoking is only done outside the home and by people other than the mom.

- **Bedsharing**: Risk increases if the baby is less than 3-4 months old, overheats, or if bedsharer has decreased arousal, smokes, or is obese.
# Prone vs supine: why parents may choose tummy sleep

<table>
<thead>
<tr>
<th></th>
<th>Prone (tummy)</th>
<th>Supine (back)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cries more</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Wakes more</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Harder to rouse</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>More likely to overheat</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Re-breathes more</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Increases CO2</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Has more apnea</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Spits up more</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>More likely to choke</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Increase risk of SIDS</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Source: American SIDS Institute
Prone vs supine sleep: choking

When on your back, the airway is above the food tube, so spit-up milk drains *away from* airway by gravity- Safer

When on your tummy, the airway is below the food tube, so spit-up milk drains *towards* the airway-Less safe
Tobacco smoke

- Babies are more vulnerable to harm from cigarette smoke than adults
- If mom smokes while pregnant, nicotine crosses the placenta and enters into baby levels are higher in baby than in mom.
- Babies exposed after birth have about 2x risk; if baby is exposed prenatally as well, have about 3-4 x the risk.
Bedsharing

- Bedsharing is a complex practice, and everyone does it a little bit differently.

- Bedsharing may be a:
  - Cultural norm (your ancestors did it; it’s a traditional practice)
  - Personal choice (you feel it is the right thing for your family)
  - Situational practice (you are not home when it is time for your baby to sleep)
  - Economic necessity (you have no money for a crib, and/or live in overcrowded conditions with no room for one)
Protective factors for sudden infant death

Protective factor: a feature or factor associated with increased protection or decreased vulnerability from a particular outcome.

Protective factors make an outcome less likely, but they may not prevent it from happening.
Protective factors

- Back to sleep
- Breastfeeding
- Roomsharing
- Pacifier use
Cultural considerations

**Traditional practices:** Bedsharing, as it was practiced by your ancestors

**Back to sleep:** Traditionally, Aboriginal babies slept on their backs

**Advice from elders:** Valuable, but they may not have updated knowledge about safe sleep
Social considerations

Giving birth outside of mom’s home community:
This may lead to more sleeping away from home, less follow-up by health staff, mothers with less access to/accessing of prenatal care

Poverty: May impact housing, nutrition, transport to prenatal care, ability to purchase safe crib, etc

Housing insecurity: May lead to overcrowding and creation of makeshift sleeping areas. Infestation or mould may be an issue.
Recommendations

- Alone on your back in a crib (or safe alternate*)
- Roomsharing
- Exclusively breastfed for 6 months (and continued with other foods for up to 2 years of age)
- Non-smoking environment
Alternative safe sleep surfaces

A surface that is firm, flat and separate, such as:

- Basket
- Carton or box
- Drawer
- Washtub

The bottom sleep surface only needs a little covering. For example, use a light blanket wrapped around a sturdy piece of cardboard. Tape or pin it to the bottom of the cardboard so the blanket will not bunch up.

Taken from the Healthy Native Babies Project: NICHD.
Tripartite Aboriginal Safe Sleep Working Group

- Who we are and what we are doing
  - Plan cards
  - Digital story
  - Safe sleep day- Looking for an interested community
    - If interested, contact the chair of the Committee
    - Tansey.Ramanzin@gov.bc.ca
Any questions?
Thank you!

Contact:
Tansey Ramanzin, Working Group Chair
Tansey.Ramanzin@gov.bc.ca