

Risk Management of Prenatal Patients Living in Rural Manitoba

February 1, 2019

Dr Frances Berard

Rural Family Physician

OBJECTIVES

1

Identify specific risks faced by prenatal patients who live in rural Manitoba

2

Learn how prenatal and peripartum care is currently provided in rural Manitoba

3

Devise strategies to optimize safety for prenatal patients who live in rural Manitoba





Who Are You?



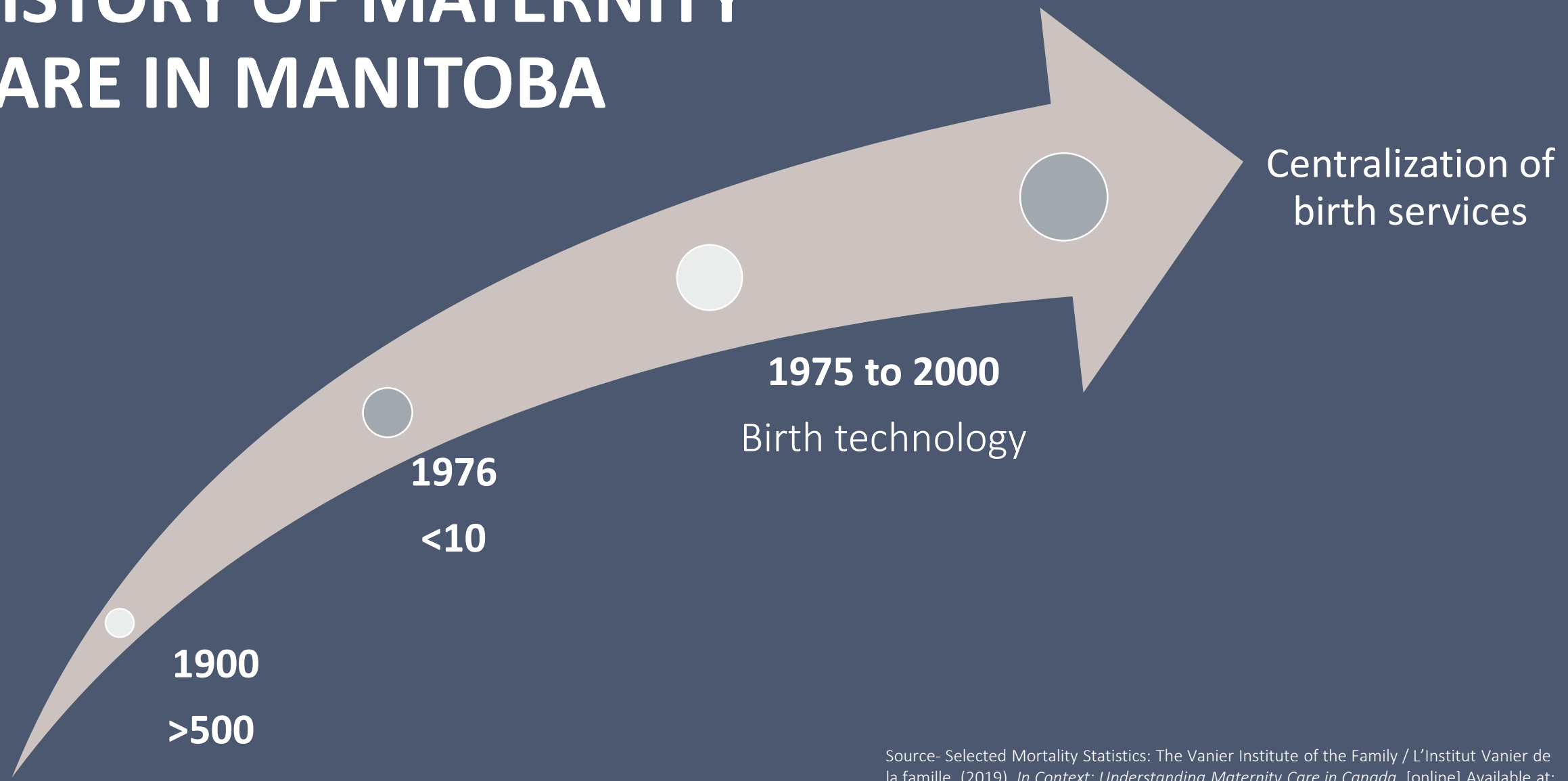


Who Am I?





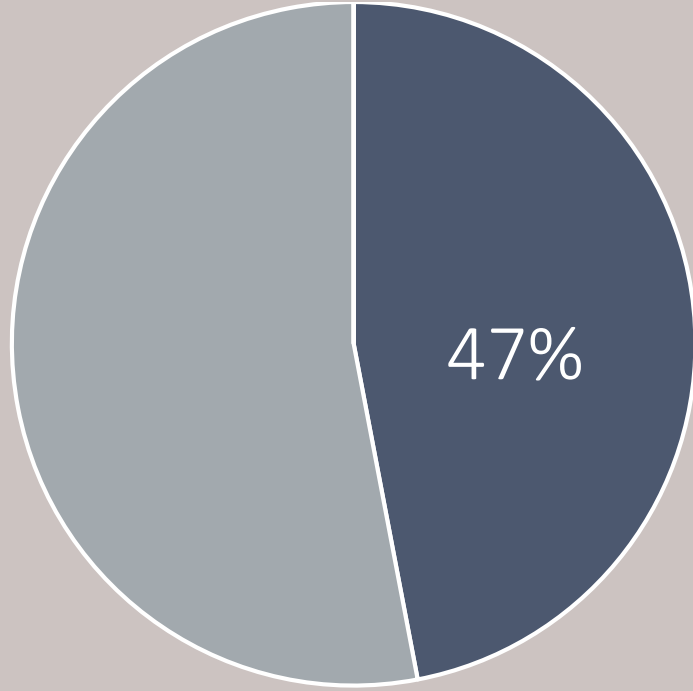
HISTORY OF MATERNITY CARE IN MANITOBA



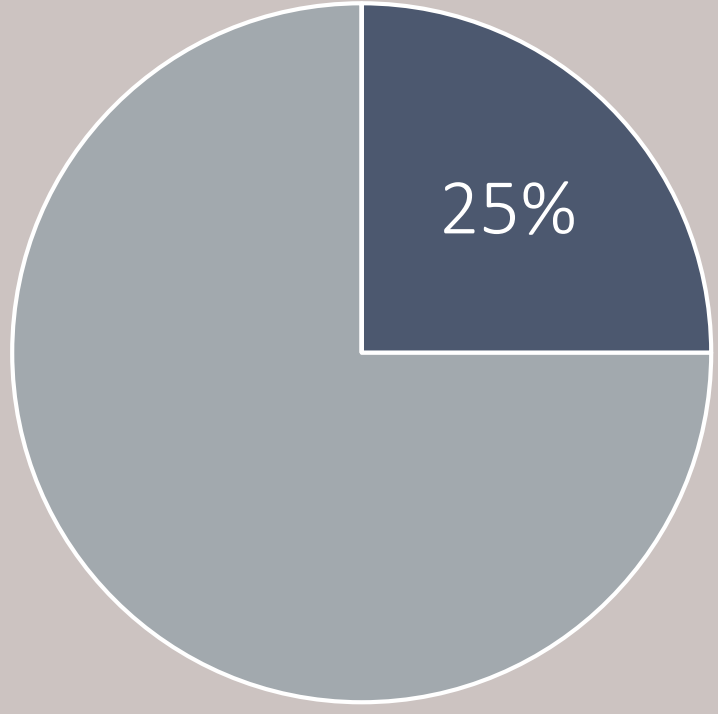
Source- Selected Mortality Statistics: The Vanier Institute of the Family / L'Institut Vanier de la famille. (2019). *In Context: Understanding Maternity Care in Canada*. [online] Available at: <https://vanierinstitute.ca/context-understanding-maternity-care-canada/>.



2008-2009



travelled outside their RHA for birth services



travelled more than 114 km for birth

Patient 1

- 32 yo
- G2P1
- Presents in intense labor
- Local hospital with no obs service
- Exam – 9 cm dilated

What Are The Risks ?







Neonatal Resuscitation



TEXTBOOK

6th Edition



American Academy
of Pediatrics



Clinical Risks



Not enough training and experience



Not enough staff



Not the right equipment



Not enough time



No surgical backup

Consequences of Centralization of Birth Services for Small Rural

Loss of local expertise

Loss of local funding

Message that providing local obstetrics causes risk for patients



Patient 2

- G2P1 39 weeks
- Has to travel 2 hours for birth
- Winter

What Are The Risks ?



Subscribe now for complete, progressive coverage of local, national and global news.



Subscribe Now
1st month for 99c + tax



News · Insight

Baby born after parents hit deer en route to Winnipeg hospital

By **ALEX BALLINGALL** News

Mon., Aug. 8, 2016





Risks of Travel for Birth



Financial cost of transport



Stressful decision making for mother



Risks of poor outcome on the road

Patient 3

- 22 yo
- G3P2 - 36 weeks
- Has to leave her remote community to await birth

What Are the Risks?



Risk of Prolonged Absence from Home for Birth



Weather/safe transport



Financial costs



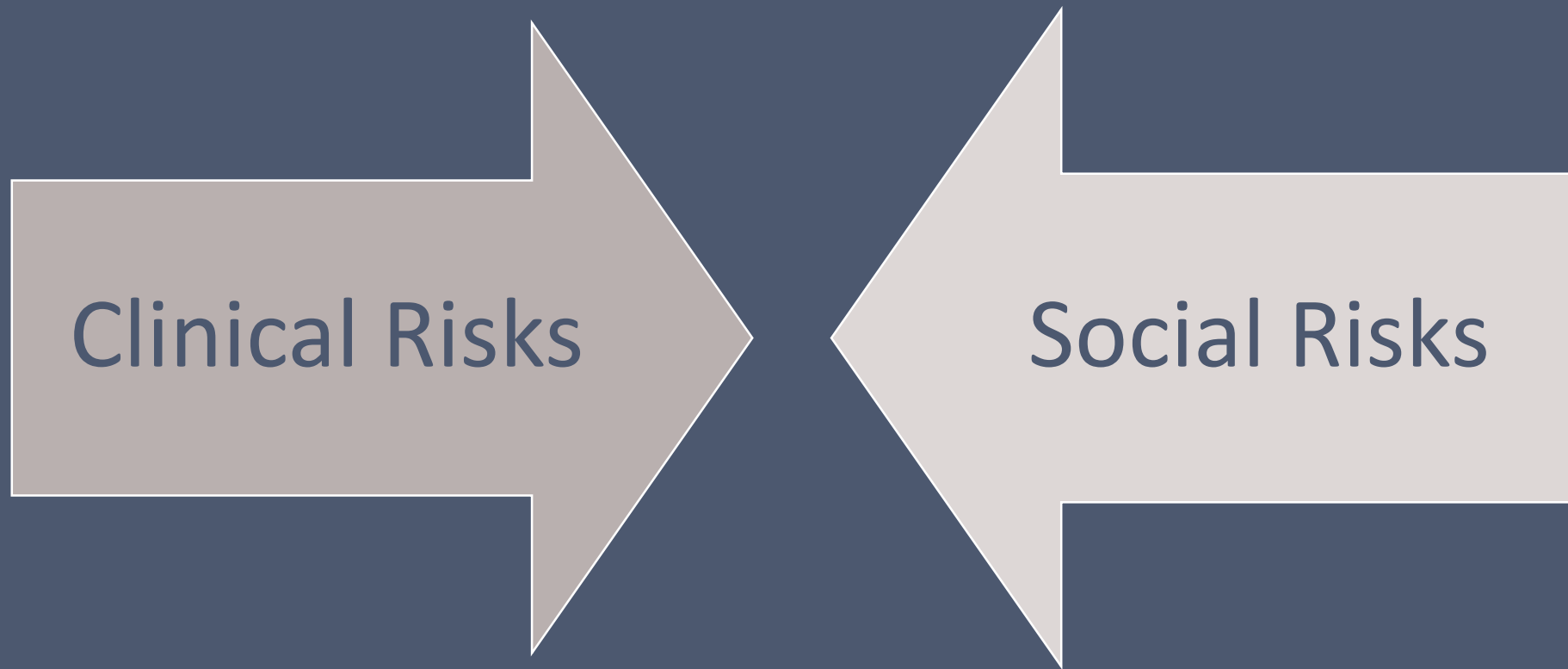
Care/safety of other children



Away from supports and culture



Comprehensive Risk of Birth



Barclay, L., Kornelsen, J., Longman, J., Robin, S., Kruske, S., Kildea, S., Pilcher, J., Martin, T., Grzybowski, S., Donoghue, D., Rolfe, M. and Morgan, G. (2016). Reconceptualising risk: Perceptions of risk in rural and remote maternity service planning. *Midwifery*, 38, pp.63-70.



Social Risk Increases Clinical Risk

Distance Matters



Social Risk Increases Clinical Risk

Poverty Matters

Grzybowski S, Kornelsen J Distance matters: a population based study examining access to maternity services for rural women. BMC HSR. 2011;11:147.

26

[Larson C P. Poverty during pregnancy: its effects on child health outcomes. Paediatr Child Health. 2007 Oct; 12\(8\): 673-677.](#)



Who is Travelling for Birth?

- younger
- lower income
- lone parents
- multiparous

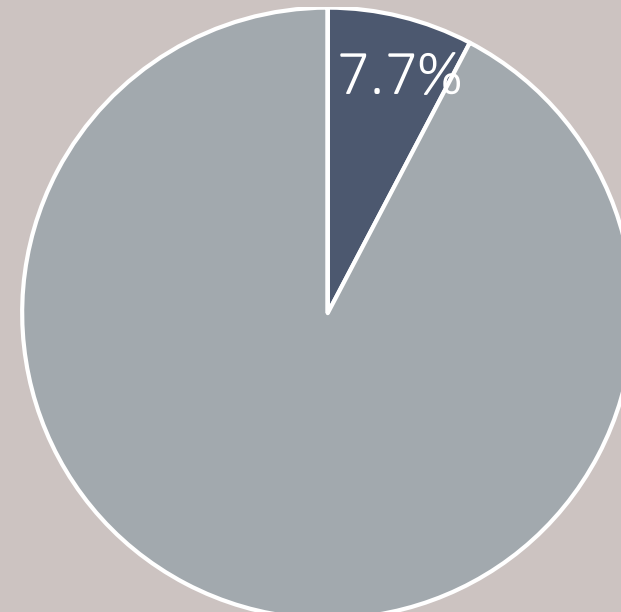
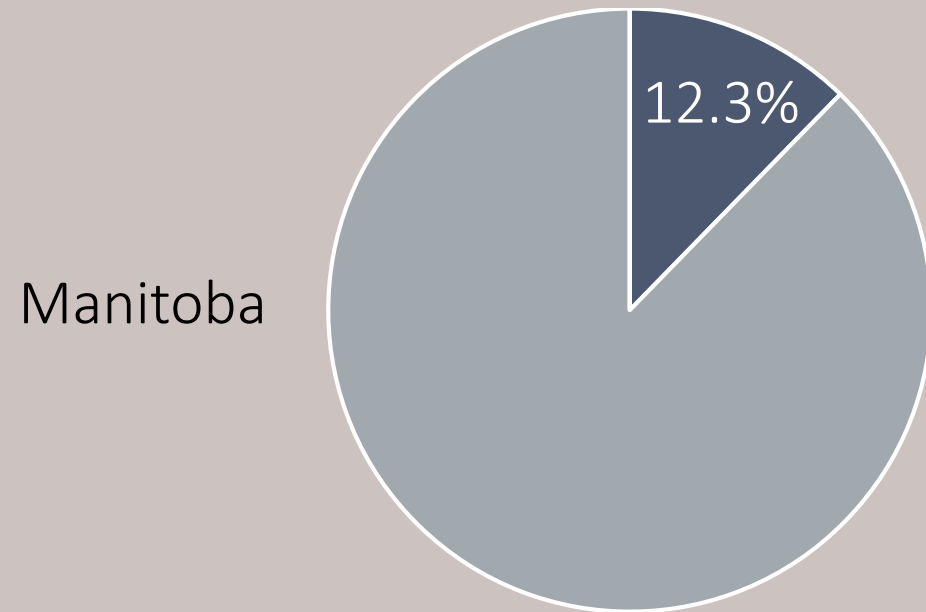
What Can Improve
Outcomes for Rural
Prenatal Patients??



Local Access to Prenatal Care



Manitoba IA prenatal care



Winnipeg
(but as high as 19.1%
in Point Douglas)




Birth Services as Close to Home as Possible

Grzybowski S, Kornelsen J Distance matters: a population based study examining access to maternity services for rural women. *BMC HSR*. 2011;11:147. 26

Grzybowski, S., Fahey, J., Lai, B., Zhang, S., Aelicks, N., Leung, B., Stoll, K. and Attenborough, R. (2015). The safety of Canadian rural maternity services: a multi-jurisdictional cohort analysis. *BMC Health Services Research*, 15(1).

Miller, K., Couchie, C., Ehman, W., Graves, L., Grzybowski, S. and Medves, J. (2017). No. 282-Rural Maternity Care. *Journal of Obstetrics and Gynaecology Canada*, 39(12), pp.e558-e565.



“The question is not whether to provide birthing services but what level of services is feasible and sustainable.”

Midwives



<https://canadianmidwives.org>

Kornelsen J. Rural midwifery: overcoming barriers to practice. *Can J Midwifery Res Pract* 2009;8:6–11.

[Stoll K](#), [Kornelsen J](#). Midwifery care in rural and remote British Columbia: a retrospective cohort study of perinatal outcomes of rural parturient women with a midwife involved in their care, 2003 to 2008. [J Midwifery Womens Health](#). 2014 Jan-Feb;59(1):60-6. doi: 10.1111/jmwh.12137.



Continuous Support During Childbirth

YOUR READING LIST



Manitoba Indigenous Doula Initiative Empowers Women, Helps Keep Kids Out of Welfare



Opening a Reproductive Health Clinic Is Hard. Trump's Steel Tariffs Make It Even Harder.



Attacks on the Women's March Expose Race and Class Bias Among White Jews and

CULTURE & CONVERSATION MATERNITY AND BIRTHING

Manitoba Indigenous Doula Initiative Empowers Women, Helps Keep Kids Out of Welfare System

Sep 12, 2018, 3:45pm Anna Kusmer

"Indigenous women are beautiful and powerful and resilient. They are worthy, and they deserve to be moms to their children."



1.4K



When Dawn Lavand, who grew up in Winnipeg in foster care and disconnected from her Cree and Ojibwe heritage, gave birth at the age of 21, she didn't have any other indigenous people present. "I thought if I surrounded myself with enough white people, then I wouldn't have a social worker come visit me and take

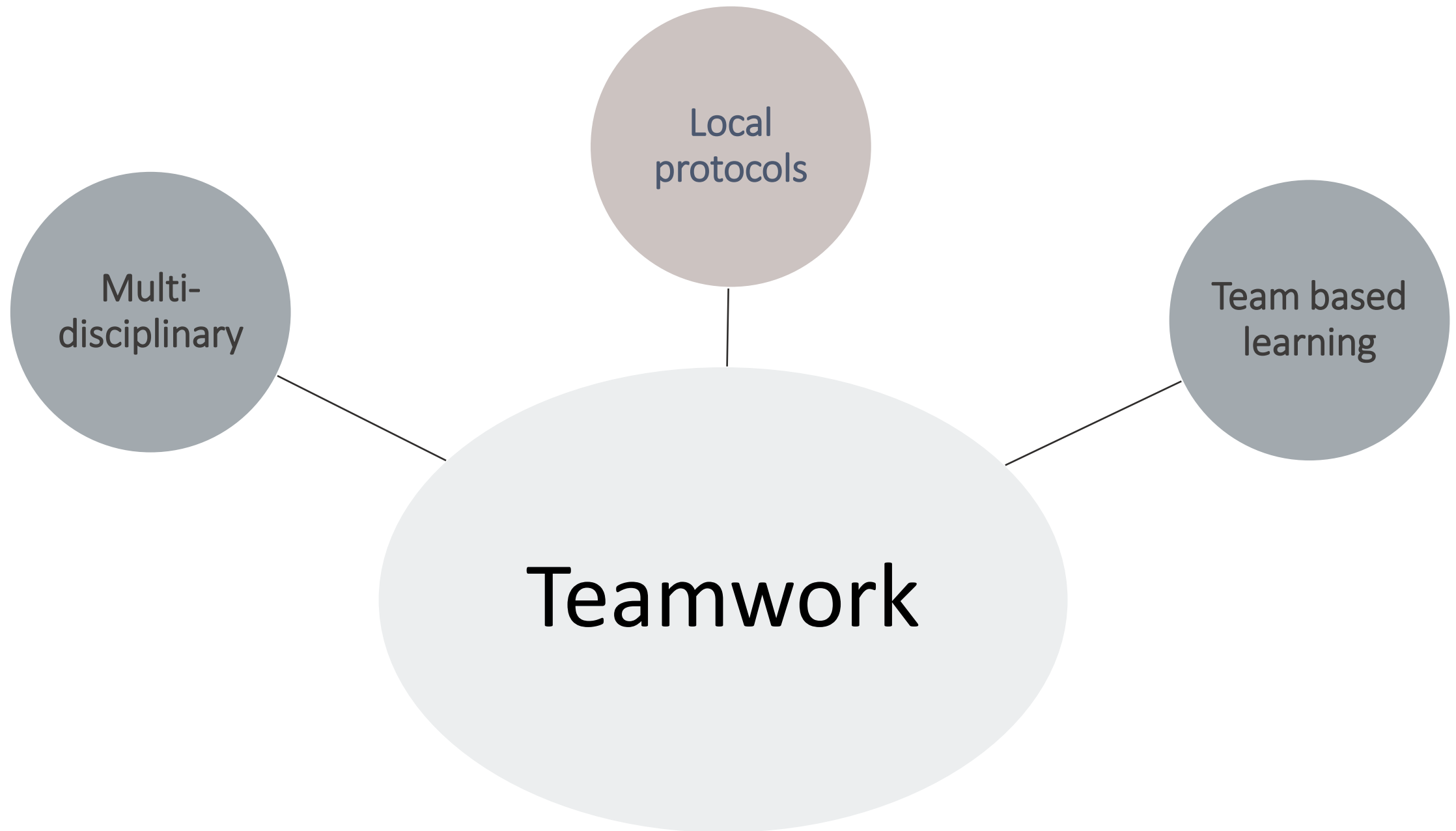




GP Surgeons

Grzybowski S, Kornelsen J Distance matters: a population based study examining access to maternity services for rural women. *BMC HSR*. 2011;11:147. 26
Grzybowski, S., Fahey, J., Lai, B., Zhang, S., Aelicks, N., Leung, B., Stoll, K. and Attenborough, R. (2015). The safety of Canadian rural maternity services: a multi-jurisdictional cohort analysis. *BMC Health Services Research*, 15(1).







Support for Women who Have to Travel



Organized transfer paths



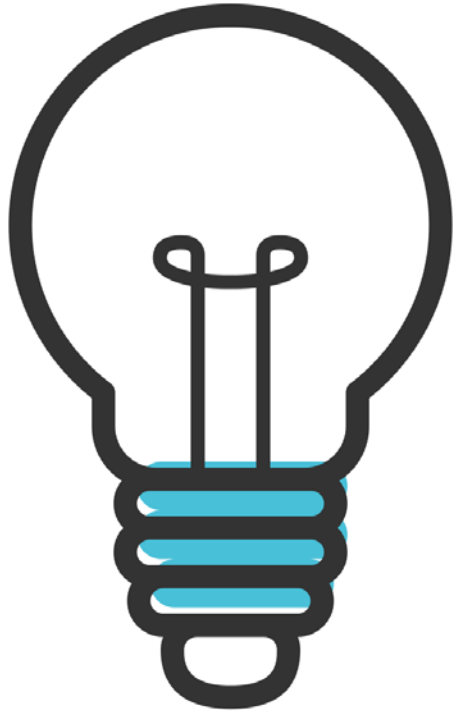
Financial support



Safe travel options



Technology



- Communication technology
- Other Technology?

Assess Relative Risk



Case 1 Expected preterm birth



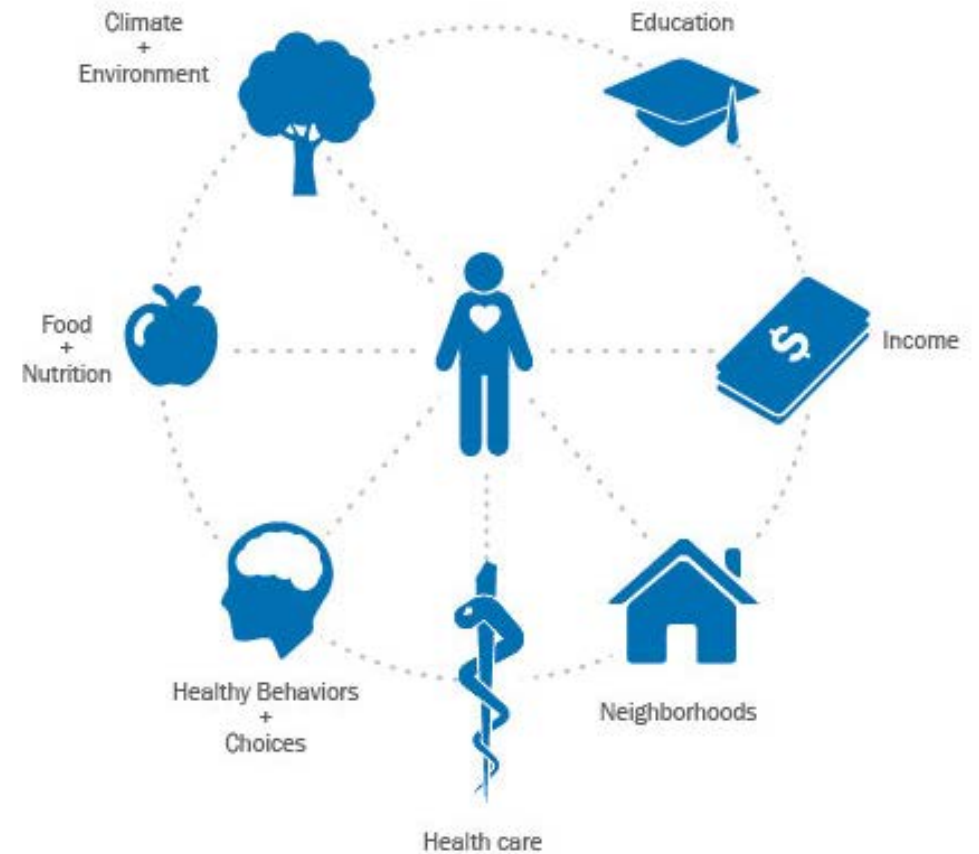
Case 2 Risk of neonatal hypoglycemia



Social Determinants of Health

<https://www.apha.org/invest-in-health>

We know **good health**
depends on **many things**



REFERENCES

- Apps.who.int. (2019). [online] Available at: <http://apps.who.int/iris/bitstream/handle/10665/394254/2/sequences1>.
- Barclay, L. and Kornelsen, J. (2016). The closure of rural and remote maternity services: Where are the midwives?. *Midwifery*, 38, pp.9-11.
- Barclay, L., Kornelsen, J., Longman, J., Robin, S., Kruske, S., Kildea, S., Pilcher, J., Martin, T., Grzybowski, S., Donoghue, D., Rolfe, M. and Morgan, G. (2016). Reconceptualising risk: Perceptions of risk in rural and remote maternity service planning. *Midwifery*, 38, pp.63-70.
- Cheyne, H., Dalgleish, L., Tucker, J., Kane, F., Shetty, A., McLeod, S. and Niven, C. (2012). Risk assessment and decision making about in-labour transfer from rural maternity care: a social judgment and signal detection analysis. *BMC Medical Informatics and Decision Making*, 12(1).
- Combier, E., Charreire, H., Le Vaillant, M., Michaut, F., Ferdynus, C., Amat-Roze, J., Gouyon, J., Quantin, C. and Zeitlin, J. (2013). Perinatal health inequalities and accessibility of maternity services in a rural French region: Closing maternity units in Burgundy. *Health & Place*, 24, pp.225-233.
- Gagné, G., Grzybowski, S., Iglesias, S., Klein, M. and Lalonde, A. (1998). Joint Position Paper on Rural Maternity Care. *Journal SOGC*, 20(4), pp.393-398.
- Grzybowski, S., Fahey, J., Lai, B., Zhang, S., Aelicks, N., Leung, B., Stoll, K. and Attenborough, R. (2015). The safety of Canadian rural maternity services: a multi-jurisdictional cohort analysis. *BMC Health Services Research*, 15(1).
- Grzybowski, S., Kornelsen, J. and Schuurman, N. (2009). Planning the optimal level of local maternity service for small rural communities: A systems study in British Columbia. *Health Policy*, 92(2-3), pp.149-157.
- Heaman, M., Kingston, D., Helewa, M., Brownell, M., Derksen, S., Bogdanovic, B., McGowan, K. and Bailly, A. (2012). Perinatal Services and Outcomes in Manitoba. *Manitoba Centre for Health Policy*.
- Hodnett ED, Gates S, Hofmeyr GJ, Sakala C. Continuous support for women during childbirth. *Cochrane Database Syst Rev* 2007(3):CD003766.
- Hodnett ED, Gates S, Hofmeyr GJ, Sakala C. Continuous support for women during childbirth. *Cochrane Database Syst Rev*. 2013;7:CD003766.
- Janssen, P., Saxell, L., Page, L., Klein, M., Liston, R. and Lee, S. (2009). Outcomes of planned home birth with registered midwife versus planned hospital birth with midwife or physician. *Canadian Medical Association Journal*, 181(6-7), pp.377-383.
- Kornelsen J. Rural midwifery: overcoming barriers to practice. *Can J Midwifery Res Pract* 2009;8:6–11.
- Kornelsen, J. and Grzybowski, S. (2005). Is Local Maternity Care an Optional Service in Rural Communities?. *Journal of Obstetrics and Gynaecology Canada*, 27(4), pp.329-331.
- Kornelsen JA, Grzybowski SW Obstetric services in small rural communities: what are the risks to care providers? *Rural and Remote Health* 8: 943. (Online), 2008
- Kornelsen, J., Moola, S. and Grzybowski, S. (2009). Does Distance Matter? Increased Induction Rates for Rural Women Who Have to Travel for Intrapartum Care. *Journal of Obstetrics and Gynaecology Canada*, 31(1), pp.21-27.
- [Larson C.P. Poverty during pregnancy: its effects on child health outcomes. *Paediatr Child Health*. 2007 Oct; 12\(8\): 673–677.](#)
- Luo, Z., Wilkins, R., Heaman, M., Martens, P., Smylie, J., Hart, L., Simonet, F., Wassimi, S., Wu, Y. and Fraser, W. (2010). Birth Outcomes and Infant Mortality by the Degree of Rural Isolation Among First Nations and Non-First Nations in Manitoba, Canada. *The Journal of Rural Health*, 26(2), pp.175-181.

REFERENCES

- McGrath SK, Kennell JH. A randomized controlled trial of continuous labor support for middle-class couples: effect on cesarean delivery rates. *Birth* 2008;35:92–7.
- Miller, K., Couchie, C., Ehman, W., Graves, L., Grzybowski, S. and Medves, J. (2012). SOGC Joint Position Paper on Rural Maternity Care. *SOGC*, pp.984-991.
- Miller, K., Couchie, C., Ehman, W., Graves, L., Grzybowski, S. and Medves, J. (2017). No. 282-Rural Maternity Care. *Journal of Obstetrics and Gynaecology Canada*, 39(12), pp.e558-e565.
- No-251-Returning Birth to Aboriginal, Rural, and Remote Communities. (2017). *Journal of Obstetrics and Gynaecology Canada*, 39(10), pp.e395-e397.
- Our World in Data. (2019). *Teaching Resources*. [online] Available at: <https://ourworldindata.org/teaching>.
- Public Health Agency of Canada (2013). *Maternal Mortality in Canada*. [online] Her Majesty the Queen in Right of Canada. Available at: http://publications.gc.ca/collections/collection_2012/aspc-phac/HP10-19-2011-eng.pdf.
- Poeran, J., Borsboom, G., de Graaf, J., Birnie, E., Steegers, E., Mackenbach, J. and Bonsel, G. (2014). Does centralisation of acute obstetric care reduce intrapartum and first-week mortality? An empirical study of over 1 million births in the Netherlands. *Health Policy*, 117(1), pp.28-38.
- Publications.gc.ca. (2019). *Information archivée dans le Web | Information Archived on the Web*. [online] Available at: http://publications.gc.ca/collections/collection_2018/aspc-phac/HP7-1-2017-eng.pdf [Accessed 21 Jan. 2019].
- Publications.gc.ca. (2019). *Information archivée dans le Web | Information Archived on the Web*. [online] Available at: http://publications.gc.ca/collections/collection_2012/aspc-phac/HP10-19-2011-eng.pdf.
- Ravelli, A., Jager, K., de Groot, M., Erwich, J., Rijninks-van Driel, G., Tromp, M., Eskes, M., Abu-Hanna, A. and Mol, B. (2010). Travel time from home to hospital and adverse perinatal outcomes in women at term in the Netherlands. *BJOG: An International Journal of Obstetrics & Gynaecology*, 118(4), pp.457-465.
- [Stoll, K, Korndal, J. Midwifery care in rural and remote British Columbia: a retrospective cohort study of perinatal outcomes of rural parturient women with a midwife involved in their care, 2003 to 2008. J Midwifery Womens Health. 2014 Jan-Feb;59\(1\):60-6. doi: 10.1111/jmwh.12137.](#)
- The Vanier Institute of the Family. 2017. "In Context: Understanding Maternity Care in Canada." *In Context* series. Retrieved from [<https://vanierinstitute.ca/context-understanding-maternity-care-canada/>].
- The Vanier Institute of the Family / L'Institut Vanier de la famille. (2019). *In Context: Understanding Maternity Care in Canada*. [online] Available at: <https://vanierinstitute.ca/context-understanding-maternity-care-canada/>.
- Timetoast. (2019). *History of Health Care in Canada timeline..* [online] Available at: <https://www.timetoast.com/timelines/70711> [Accessed 21 Jan. 2019].
- The College of Physicians & Surgeons of Manitoba (2018). *The Maternal and Perinatal Health Standards Committee 2014 Annual Report*.
- Verstraeten, B., Mijovic-Kondejewski, J., Takeda, J., Tanaka, S. and Olson, D. (2015). Canada's pregnancy-related mortality rates: doing well but room for improvement. *Clinical & Investigative Medicine*, 38(1), p.15.