

Pregnancy After Age 35

A collaborative project of:

Best Start: Ontario's Maternal, Newborn and Early Child Development Resource Centre
and Halton Region Health Department
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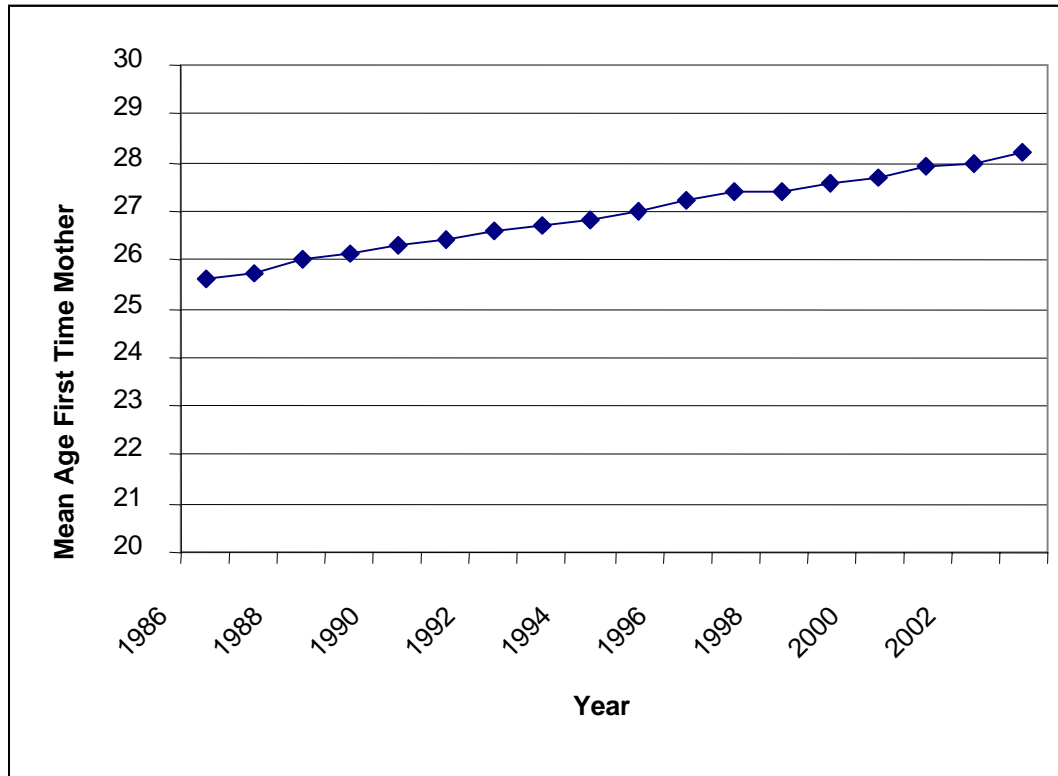
Overview of Presentation

- Trends for Pregnancy and Birth in Ontario
- Health Advantages to Pregnancy After Age 35
- Psychosocial Advantages
- Health Concerns

Overview of Presentation

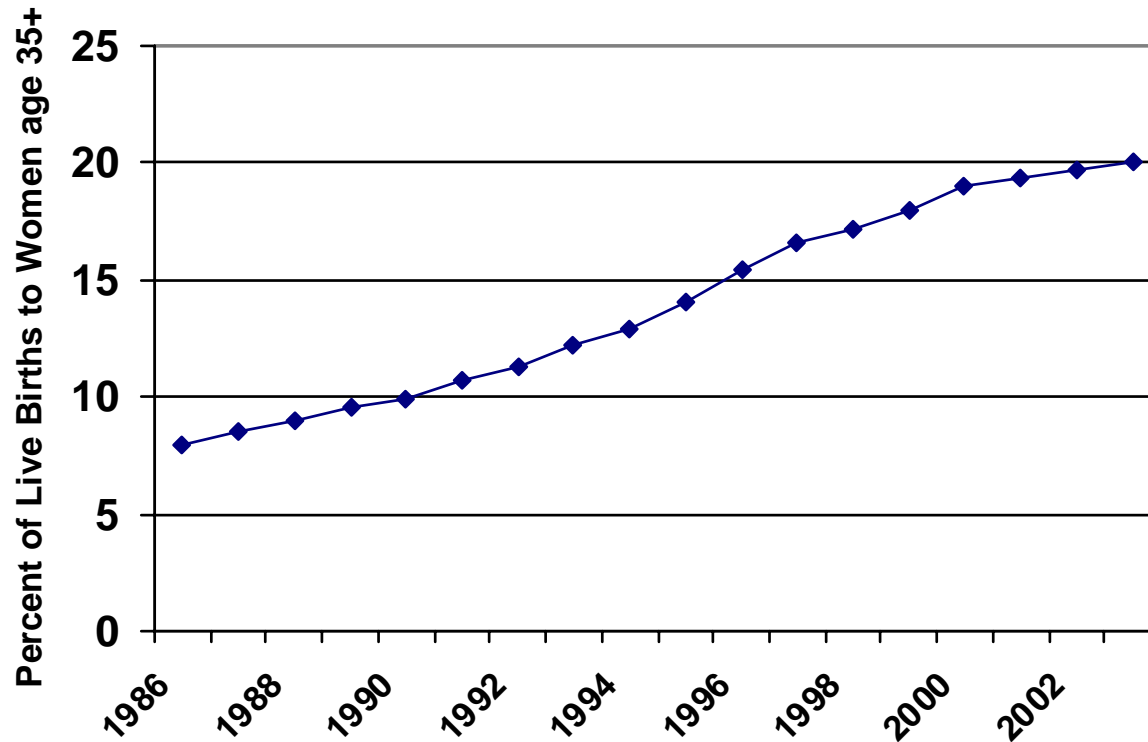
- Potential Prenatal Complications
- Emotional Care
- Preconception Care
- Prenatal Care
- Preparation for Parenting

Birth Trends: Average Age at First Childbirth in Ontario



•Figure 1: Mean Age of First Time Mothers, Singleton Live Births Only, Ontario (MOHLTC, December, 2006).

Birth Trends: Percent of All Live Births to Mothers Age 35 or Older in Ontario



•Figure 2: Percent of Live Births to Women age 35+, Ontario (MOHLTC, December, 2006).

Birth Trends: % of Live Births to Women over age 35 by Ontario Health Unit

Ontario Health Unit	% Live Births to Women Age 35+ in 2003
Algoma	12.5%
Brant	12.9%
Chatham-Kent	9.5%
Durham	19.9%
Eastern Ontario	11.5%
Elgin St. Thomas	10.9%
Grey Bruce	13.3%
Haldimand-Norfolk	12.8%
Haliburton, Kawartha, Pine Ridge	14.9%
Halton	24.6%
Hamilton	18.5%
Hastings, Prince Edward	12.3%
Huron	12.9%
Kingston, Frontenac, Lennox and Addington	16.0%
Lambton	12.9%
Leeds, Grenville, Lanark	14.3%
Middlesex-London	18.0%
Niagara	16.3%
North Bay-Parry Sound	11.3%

Birth Trends: % of Live Births to Women over age 35 by Ontario Health Unit

Ontario Health Unit	% Live Births to Women Age 35+ in 2003
Northwestern	7.8%
Ottawa	24.1%
Oxford	12.5%
Peel	20.6%
Perth	13.5%
Peterborough	16.5%
Porcupine	8.4%
Renfrew	14.1%
Simcoe-Muskoka	16.6%
Sudbury	12.2%
Thunder Bay	16.0%
Timiskaming	9.9%
Toronto	25.8%
Waterloo	16.1%
Wellington, Dufferin, Guelph	17.9%
Windsor Essex	14.9%
York Region	24.4%

Social Context for Pregnancy After Age 35

- Education
- Career establishment
- Marriage
- Contraceptives
- ART

Social Context: Education

% of first-time Canadian mothers with university education:

- 1971: 4%
- 1996: 18%

Source: Lochhead, 2000

Social Context: Career Establishment

- 81% of women participate in the labour force

Source: Statcan, 2006

Social Context: Average Age of First Time Marriage in Canada

In 2003:

- Women: 28.5 years
- Men: 30.6 years

Source: Statcan, 2007

Social Context: Advances in ART

- Average age of women in Canadian ART programs:
 - 38.5 years

Source: Canadian Fertility and Andrology Service, 2005

Influencing Factors for Pregnancy After Age 35

- Economics
- Lifestyle factors
- Geographic mobility

Influencing Factors: Economics

Wage Advantage:

Women who postpone having a family earn at least 6% more than women who have children earlier

Statcan, 2006

Influencing Factors: Geographic Mobility

- Average age of childbirth is higher for women who migrate away from their province of origin

Statcan, 2006

Health Advantages for Pregnancy After 35

- Planned pregnancy
- Psychological preparation for parenthood
- Socio-economic benefits to health
- Increased folic acid use
- Higher breastfeeding rates

Health Advantages: A Planned Pregnancy

Ontario survey of % of pregnancies that were planned:

- Age 20-29: 34%
- Age 30-39: 63%

Best Start, 2002

Health Advantages: Psychological Preparation for Parenthood

- Sense of readiness
- Sense of personal security

Dion, 1995

Health Advantages: Economic Benefits

- Education & Income are key determinants of health

Health Canada, 2005

Health Advantages: Use of Folic Acid

- Use by women increases with:
 - Age
 - Education
 - Household income

Source: Millar, 2004

Health Advantages: Breastfeeding for 3 Months or Longer

- Rates increase with age of mother:
 - Age 25-29: 60%
 - Age 30-34: 67%
 - Over Age 35: 75%

Source: Health Canada, 2003

Health Concerns for Pregnancy After 35

- Declining fertility
- Increased use of alcohol in pregnancy
- Pre-existing medical conditions
- Potential for pregnancy complications

Health Concerns: Declining Fertility

- Includes both natural fertility and ART success
- Success Rates for a single IVF cycle:
 - Under Age 35: 32%
 - Ages 35-39: 22%
 - Over Age 40: 10%

Source: CFAS, 2006

Health Concerns: Use of Alcohol in Pregnancy

- Self-reported rate of alcohol use in pregnancy:
 - Age 25-29: 12%
 - Age 30-35: 14%
 - Over age 35: 22%

Source: Health Canada, 2003

Health Concerns: Pre-existing Medical Conditions

As all people age, the likelihood for developing medical conditions increases.

- Diabetes
- Hypertension
- Cancer
- Arthritis

Health Concerns: Environmental Toxins

- Increased concern about toxins:
 - Industrial pollution
 - Pesticides
 - Personal care products
 - Home cleaning products

Potential Complications in Pregnancy and Birth

- Fetal loss
- Chromosome anomalies
- Multiple births
- Maternal medical complications
- Labour and birth complications

Fetal Loss: Miscarriage

- Miscarriage increases with age of mother:
 - Age 25-30: 12% miscarriage rate
 - Age 30-35: 15%
 - Age 35-40: 25%
 - Age 40-45: 51%
 - Over age 45: 93%

Source: Nybo Anderson et al, 2000

Fetal Loss: Ectopic Pregnancy

- Ectopic pregnancy increases with age of mother:
 - Age 25-29: 12 per 1000 pregnancies
 - Age 30-34: 14
 - Age 35-39: 21
 - Age 40-44: 26

Source: Health Canada, 2003

Fetal Loss: Stillbirth

- Stillbirths increase with age of mother:
 - Age 20-34: 5.5 per 1000 births
 - Over age 35: 8.3 per 1000 births

Source: Statcan, 1999

Fetal Chromosome Anomalies

- Down Syndrome is more common with increased maternal age:
 - Age 25: 1 in 1250 births
 - Age 35: 1 in 385 births
 - Age 40: 1 in 106 births

Source: Hook, 1981

Increased Chance for Multiples

- Influence of ART
 - 30-50% of twin pregnancies result from ART
 - 75% of triplet pregnancies result from ART

Source: Health Canada, 2003

Maternal Medical Complications

- Hypertension
- Diabetes
 - Pre-gestational
 - Gestational

Labour and Birth Complications

- Placenta previa
- Cesarean birth
- Pre-term birth
- Very pre-term birth
- Placental abruption
- Low birth weight

Labour & Birth Complications: Caesarean Birth

- Caesarean birth rates increase with maternal age:
 - Under age 25: 13%
 - Age 25-34: 16%
 - Over age 35: 20%

Source: Health Canada, 2003

Pregnancy After 35: Strategies in Prenatal Care

- Emotional care
- Preconception care
- Prenatal care
- Preparation for parenting

Strategies in Prenatal Care: Emotional Concerns

- Declining fertility
- Fetal loss
- Difficult decisions
- Unintended pregnancy

Emotional Care: Fertility Concerns

- Difficulty conceiving
- Fear time is running out

Emotional Care: Fetal Loss

- Grieving previous fetal losses while trying to conceive again

Emotional Care: Difficult Decisions

- ART decisions
- Multiple pregnancies
- Fetal anomalies

Emotional Care

- Perinatal mood disorders
- Unintended pregnancy

Emotional Care: Strategies for Addressing Sensitive Issues

- Ensuring a support is present
- Factual discussion
- Presenting options in a non-directive way
- Referrals for more support

Preconception Considerations

- Declining fertility
- Folic acid for women at risk
- Workplace reproductive risks
- Alcohol use
- Pre-existing medical conditions

Preconception Care: Declining Fertility

- “How long can I wait before starting a family?”

Quote from service provider

Preconception Considerations: Folic Acid

- Women at higher risk for neural tube defects or congenital heart defects require a higher dose of folic acid

Source: SOGC, 2003

Preconception Considerations: Workplace Reproductive Risks

- There is pressure on women to not allow pregnancy to negatively affect their performance at work

Preconception Considerations: Alcohol Use

- Fewer than 60% of service providers regularly obtain a detailed history of alcohol use in preconception care

Source: Tough et al, 2006

Preconception Considerations: Medical Conditions

- Women over age 35 are more likely to be using:
 - Prescription drugs
 - OTC drugs
 - Herbal remedies

Strategies in Prenatal Care: Addressing Unique Risks

- Overall, prenatal care for women over age 35 does not differ from prenatal care for other women

Strategies in Prenatal Care: Addressing Unique Risks

- Risk for fetal chromosome anomalies

Strategies in Prenatal Care: Screening Tests

- Prenatal screening tests identify women that have a higher chance of having a baby with a specific chromosome anomaly or a neural tube defect

Screening Tests: First Trimester Screening Tests

- Nuchal Translucency
- First Trimester Screening Test [FTS]
- Integrated Prenatal Screening [IPS]
- Serum Only Integrated Prenatal Screening [Serum IPS]

Diagnostic Tests in Pregnancy

- Diagnostic tests indicate the presence of a specific chromosome anomaly
- Options are:
 - Amniocentesis
 - Chorionic Villus Sampling

Diagnostic Tests: Criteria for Diagnostic Testing

- Positive result from screening test
- Maternal age over 40
- Strong family risk factors for a specific disorder

Preparation for Parenthood

- Perception of risk
- Work and social support
- Realities of parenting
- Confidence in parenting
- Supporting the transition to parenting

Preparation for Parenthood: Perception of Risk

- Women over the age of 35 have even more reasons to think of their baby as precious and irreplaceable

Source: Health Canada 2005

Preparation for Parenthood: Work and Social Support

- Social isolation
- Confidence at work vs. confidence as a parent
- Less family support

Preparation for Parenthood: Realities of Parenting

- High preparation
- High expectations

Preparation for Parenthood: Confidence in Parenting

- High levels of information does not necessarily lead to higher confidence

Source: Invest in Kids (2002)

Preparation for Parenting: Supporting the Transition

- Prenatal classes
- Parenting programs
- Drop-in groups

Preparation for Parenthood: Concerns in Early Parenting

- Identifying women at risk for postpartum mood disorders

Pregnancy After 35: Looking Forward

“The trend of pregnancy after age 35 has become well established in urban Ontario and now deserves the attention of policy makers, service providers...public health departments, prenatal care providers and the health care system as a whole”

Discussion

1. Discuss one aspect of prenatal care specific to women over age 35 (ie: Preconception Care, Emotional Care, Transition to Parenting)
2. What can you do in your practice to incorporate these unique needs of women over age 35?