The Importance of Prenatal Care and the Role of Community Health Workers
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Learning Objectives

Participants will…

• Identify the two HRSA performance measures related to pregnancy care
• Reflect on the role of community health workers in improving access to prenatal care
• Identify two unique risk factors for pregnant migrant farmworker women
• Analyze the readiness of their own work setting to assist pregnant women to access prenatal care
Quality of Care Measures

Early Entry into Prenatal Care

Percentage of pregnant women beginning prenatal care in the first trimester

¹
Why Do We Need Early Prenatal Care?

- Association between early care and good outcomes
- Early care means good access to care
- Establishes a care relationship
- Encourages early behavior changes
Health Outcomes & Disparities Measures
Low Birth Weight

Percentage of babies born to health center patients whose birth weight was below normal (less than 2500 grams)
Healthy birth weight is related to healthy pregnancy

Low (and high) birth weight associated with various risk factors
- Diabetes
- Substance abuse
- Poor diet
- Racial/ethnic disparities
- Preterm birth
- Environment (work, stress)

Can be associated with life-long problems for the infant

Why is Birth Weight Important? ³,⁴
“Women who receive early and regular prenatal care are more likely to have healthier infants”

AAP & ACOG, 2002
<table>
<thead>
<tr>
<th>Challenges for Health Care Programs</th>
<th>No shows</th>
<th>No records</th>
<th>Follow up of tests &amp; tx</th>
<th>Cultural differences</th>
<th>Language issues</th>
<th>Legal status</th>
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The Role of CHWs in Improving Performance in Pregnancy Care
First, Some Prenatal Basics

- Importance of prenatal care
- Due date & trimesters
- Prenatal visit schedule
- Common discomforts
- Prenatal care and testing
- Fetal development
- Risks, complications & danger signs
- Prenatal education: self care, birth prep
- Post partum care
Prenatal Care

• Why go for check-ups if a pregnant woman is feeling well?

• What are the benefits of prenatal care?
  – In terms of outcomes
  – In personal terms

• How do you talk to women about this?
Prenatal visits

What’s the difference between different types of providers?
Calculation of due date

✓ LMP
✓ Estimated date of confinement (EDC) is calculated based on the first day of the last menstrual period (LMP) by adding 9 months and 7 days from that date.

OR

✓ …subtract 3 months and add one year and 7 days
✓ Test: EDC for LMP of today
Duration of pregnancy is measured in weeks, counting from the LMP. The EDC is 40 weeks after the LMP. Pregnancy is also measured in trimesters.

1 Trimester: Weeks 0-12
2 Trimester: Weeks 13-28
3 Trimester: Weeks 29-Birth
BIRTH
Timing of visits

The **standard schedule of prenatal visits** for a normal pregnancy is:

- Every 4 weeks for the first 28 weeks
- Every 2 weeks for 28-36 weeks
- Every week from 36 weeks to birth
- Postpartum visit 6 weeks after birth

*Note: This schedule may vary for a woman who is considered high risk*
Content of visits
First Visit

- Medical and social history
- Risk screening—identification of problems or potential problems
- Examination:
  - Physical exam
  - Pelvic exam
  - Weight, height
  - Blood pressure
- Initial labs (more on this later)
- Vitamins
Subsequent Visits

- Weight
- Blood pressure
- Urine dip
- Fetal heart rate
- Fundal height
- Edema
- Fetal position and movement
- Other labs
- Topics of discussion & education
- Cervical exam (at term)
Common discomforts & symptoms

- Backache
- Frequent urination
- Breast tenderness, increased size, leaking
- Constipation
- Mild irregular contractions (3rd trimester)
- Lightheadedness
- Gums swelling, some bleeding
- Headaches
- Heartburn or indigestion
- Hemorrhoids
- Leg cramps
- Nausea and vomiting
- Increased vaginal discharge
- Swelling of feet, ankles, legs
- Mood changes
Common Discomforts

Some symptoms are normal (and even good!) Consejos—which might help and which might hurt?

Coping skills

Relaxation
First Trimester (usually done at initial examination):

- Hemoglobin and hematocrit (H & H) or complete blood count (CBC)
- Blood type and Rh antibody screen
- Pap
- Gonorrhea (GC) and Chlamydia (CT)
- Syphilis (RPR)
- HIV
- Rubella immunity
- Hepatitis B immunity
- Urinalysis and urine culture
- Blood sugar (glucose) for women at high risk for diabetes (including Hispanics)
- Optional depending on risk status: ultrasound, PPD (TB test), genetic screening, blood lead screening, varicella immunity
Prenatal testing…

16-18 weeks
• Alpha-fetoprotein (MSAFP)

26-28 weeks
• Glucose challenge test (GTT)
• Possible repeat of STI testing

35-37 weeks
• Group B Strep culture (GBS)
<table>
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<tr>
<th>Age of embryo in weeks</th>
<th>Fetal period in weeks</th>
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<tr>
<td>Before fertilization</td>
<td>The pre-embryo</td>
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<tr>
<td>1-2</td>
<td>3</td>
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<td>3</td>
<td>4</td>
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<td>16</td>
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<td>20-36</td>
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<td>20-36</td>
<td>38</td>
</tr>
<tr>
<td>38</td>
<td>4 years</td>
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**Central Nervous System**
- Heart
- Upper limbs
  - Eyes
  - Lower limbs
  - Teeth
  - Palate
  - Genitals
- Ears

**Major physical abnormalities**

**Functional defects & lesser physical abnormalities**

Before fertilization: Egg and sperm cells can be damaged by toxic substances.

The pre-embryo is not affected by most toxins. Because this time is not easily detected, toxic substances should still be avoided.

Adapted from: The Developing Human, 4th ed (WB Saunders, Philadelphia, 1998)
<table>
<thead>
<tr>
<th>Risk Factor</th>
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<tbody>
<tr>
<td>Infertility</td>
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<td>Previous cesarean section</td>
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<td>Multiple pregnancies</td>
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<tr>
<td>Previous pregnancy loss</td>
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<tr>
<td>Past deep vein thrombosis (DVT) or pulmonary embolus (PE)</td>
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<tr>
<td>Age—teen or over 35</td>
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<tr>
<td>Family history/genetic conditions</td>
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</table>
Risk Factors by Medical Problems

- Thyroid disease
- Diabetes, Type I or II
- Kidney disease
- Heart disease
- Cervical cancer
- Seizures
- Breast cancer
- Psychiatric disorder
Psychosocial Risk Factors

- Domestic violence
- Poverty
- Language other than provider
- Homelessness
- Cultural barriers to care
- Scheduling or transportation problems
- Exposure to hazardous/toxic agents
- Substance abuse
- Inadequate support
- Developmental disability
- Low level of education
Pregnancy complications

- Anemia
- High blood pressure, PIH
- Preterm labor
- Infections—UTI, viruses
- Placenta previa
- Placental abruption
- Gestational diabetes
- Exposure to chicken pox, rubella
Routine testing 24-28 weeks
Gestational Diabetes Treatment

- Nutrition education
- Glucose monitoring
- Possibly insulin
- Additional monitoring during pregnancy
- Testing after pregnancy
- Higher risk of DM later in life
Danger Signs

- Severe or persistent headache
- Blurred vision or “spots” in vision
- Severe abdominal pain or cramping
- Severe or persistent vomiting
- Regular contractions, with increasing strength
- Decreased or no movement of the baby (after 5th month)
- Gush or flow of watery fluid from vagina
- Urinary symptoms—pain or burning
- High fever (above 101°F)
- Marked or sudden swelling in face or hands
- Sudden weight gain in a few days
- Vaginal bleeding
Preterm labor

37th Week Pregnancy
**Preterm labor**

Risk to baby—lungs and other organs not mature

- Contractions every 10 minutes or less
- Change in discharge—fluid or bleeding
- Pelvic pressure
- Dull backache
- Period-like cramping

Risk to baby—lungs and other organs not mature
Self Care
Oral health during pregnancy...

✓ Treatment of periodontal disease can decrease risk of GDM, PTL
Seat belts
Medications

• Not all OTCs are safe
• Take prescriptions only as directed
Immunizations

– No live viruses
  (varicella, MMR, HPV)
– Flu, tetanus, pertussis OK
Exercise

• 30 minutes per day
• Avoid excess (if unable to talk)
• Walking, swimming, stretching
• Avoid dangerous activities
• Avoid overheating—sauna, hot tub, etc.
• Preparing for the marathon of childbirth!
• Assess physical demands of work
<table>
<thead>
<tr>
<th>Substance Abuse</th>
<th>Smoking—smoking cessation treatment</th>
<th>2nd hand smoke higher in tar, nicotine, CO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Spouses and babies of smokers have more respiratory illnesses</td>
</tr>
<tr>
<td></td>
<td>Alcohol—fetal alcohol syndrome</td>
<td>No safe amount</td>
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<tr>
<td></td>
<td>Drugs—refer for treatment</td>
<td>Drug screening may be done</td>
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<td></td>
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<td>High risk for pregnancy and newborn complications</td>
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</table>
Chemical exposures

At home and work

Lead screening

Pesticide exposure
Prenatal Nutrition

• Weight gain—25-30 lb if normal weight; 15-20 lb if overweight
• Vitamin supplements—Fe & folic acid & calcium especially important
Prenatal nutrition

• Liquids: 6-10 glasses/day
• Grains: 6/day
• Fruits & vegetables: 9/day (4-5 cups)
• Dairy: 4/day (3 cups)
• Protein: 3/day (5-5½ oz)
• 300 extra calories/day
• Frequent small meals
Intimate Partner Abuse

• Maternal mortality:
  • Medical conditions-cardiac, HTN, hemorrhage, sepsis
  • Drug overdose
  • Suicide
  • Homicide: “The risk of becoming a victim of attempted or successful homicide is 3 times more frequent in pregnancy”
MIGRANT CLINICIANS NETWORK
Evaluation for Physical Abuse

Date of Birth: ____________________ Place of Birth: ____________________
Marital Status: S M D W Sep Cohabiting:__________
Migrant or Permanent:__________
Pregnant: Yes____ No____
Ethnic Origin: ____________________ Number of months in pregnancy:_____

1. Does your husband/boyfriend/companion use alcohol or drugs? Yes____ No____
   If the answer is yes, does your husband/boyfriend/companion abuse you when he is drunk or using drugs? Yes____ No____

2. During the last year, have you been physically abused (hit, kicked, pushed) by another person? Yes____ No____
   If the answer is Yes, the person who abused you was:
   HUSBAND BOYFRIEND COMPANION EX-HUSBAND RELATIVE OTHER

   Total number of occasions _____ When was the last time you were hurt? ________________

   Mark on the drawing the areas injured. Next to each injury mark the appropriate scale:

   1=threats, including threats with weapons
   2=slaps, pushes, bruises or injuries with prolonged color, pulling the hair
   3=punching, kicking, bruises or injuries with prolonged color, attempted strangulation
   4=hitting, severe bruises, burns, broken bones
   5=head injuries, internal injuries, broken bones
   6=injuries with the use of weapons

3. Have you been forced to have sexual relations in the last year? Yes____ No____
   If the answer is yes, with whom?
   HUSBAND BOYFRIEND COMPANION EX-HUSBAND RELATIVE OTHER

   Total number of occasions _____ When was the last time you were forced? ________________

4. Are you afraid of your husband/boyfriend/companion/relative, or other person threatening you? Yes____ No____
   If yes, do you need help?

This form was developed by Judith McFarlane, College of Nursing, Texas Woman's University, Houston, Texas. The form was adapted by the Migrant Clinicians Network for use in a migrant health center setting and used with permission. This form may be duplicated if needed. For more information, please contact MCN at PO Box 184255, Austin, Texas 78718, (512)337-2017, fax (512)337-0719.
Other Self-Care Measures

- Eat meat that is thoroughly cooked
- Clean fruits and veggies before eating
- Have someone else clean litter boxes or wear gloves
- Avoid sick people
- Wash hands frequently!
- Wear gloves when gardening
- Avoid touching eyes, nose and mouth
- Call provider if sick
Migrant Women

- Women are increasingly migrating for work
- Department of Labor National Ag Workers Survey—24% women
Pregnancy in Migrant Women

Limited research, but majority are Mexican so we extrapolate

• “Hispanic paradox”
  – ↓ preterm birth, LBW, infant mortality
  – Outcomes worsen with length of residence in US

• ↑ Breastfeeding

• ↑ risk of gestational diabetes among Latinas—indication for prenatal screening
Mobility as a risk factor

• Rapid increase in immigrant population is outpacing availability of appropriate services in many locations—various studies
• 77% uninsured—NAWS
• Other factors: access to good nutrition, social isolation
Barriers for Migrant Women

14,20

• Isolation in rural areas
  – Lack of access to health care
  – Lack of access to telephone
  – Separation from support system

• Cultural barriers
  – Male dominance in families & relationships

• Economic dependence

• Stresses related to well-being of children
Occupational risks

Pesticide exposure (work & home)

- On the job exposure
- Documented risk of exposure to household members
- Toxicity/teratogenicity of pesticides often not known
Occupational Risks

- Other chemical exposures
- Musculoskeletal disorders high
- Dermatological problems
- Heat exposure
Real lives

Agmart and Carlitos

AP Photo
Within 7 weeks of one another...
4 women lived in the same labor camps and worked in the same fields in North Carolina and Florida.

Carlitos born without arms or legs.
Jesus born with Pierre Robin syndrome.
Violeta born with multiple birth defects, died within 3 days.

4th baby with similar birth defects in Mexico.
Resources...
Comic book: pregnancy & pesticides

Lo Que Bien Empieza...Bien Acaba
Pregnancy patient education resources

Other resources:

- **Text4Baby**: A free service that provides health education by text to pregnant women and new mothers in English and Spanish. [www.text4baby.org](http://www.text4baby.org).
- Rural Women’s Health Project ([www.rwhp.org](http://www.rwhp.org)) pregnancy *fotonovelas*
- Teach with Stories Prenatal Care—*fotonovela* series ([www.augercommunications.com](http://www.augercommunications.com))
- Pesticides & pregnancy handouts ([www1 wfubmc edu/fam_med/Research/Educational](http://www1 wfubmc edu/fam_med/Research/Educational))
- Giving Birth at the Hospital—Eng/Span flipchart ([www.migranthealth.org/materials_and_tools/](http://www.migranthealth.org/materials_and_tools/))
- Hesperian Health Guides ([www.hesperian.org](http://www.hesperian.org))
Questions?

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References

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18. https://www.cdc.gov/niosh/topics/aginjury/naws/demotables.html