



# 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 <sup>1</sup>



# 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 <sup>2</sup>

# Low Birth Weight

A close-up photograph of a newborn baby lying down. A person's hands are visible, holding a white measuring tape around the baby's head and chest. The baby's eyes are closed, and the person's hands are gently supporting the baby's head. The measuring tape has black markings and numbers, including 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, and 35. The background is a plain, light-colored wall.

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

# Why is Birth Weight Important? <sup>3,4</sup>



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

“Women who receive early  
and regular prenatal care are  
more likely to have healthier  
infants”

AAP & ACOG, 2002



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Challenges for Health Care Programs

No shows

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No records

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Follow up of tests & tx

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Cultural differences

preventive care

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gender issues

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Language issues

forms

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classes and handouts

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legal consent

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Legal status

eligibility for services

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The Role of  
CHWs in  
Improving  
Performance in  
Pregnancy Care





# First, Some Prenatal Basics <sup>5</sup>

● 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 <sup>6</sup>

- ✓ 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

# Trimesters <sup>7</sup>

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



# Timing of visits <sup>8</sup>

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



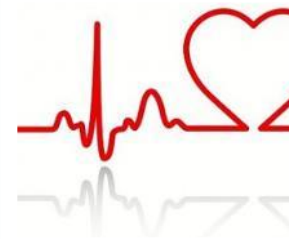
Weight



Blood pressure



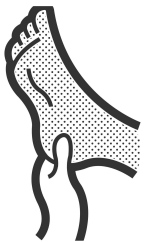
Urine dip



Fetal heart rate



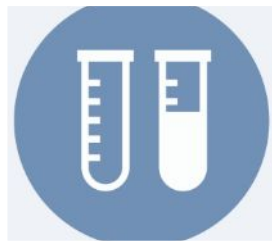
Fundal height



Edema



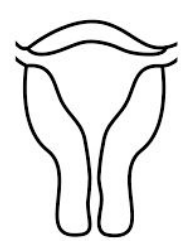
Fetal position  
and movement



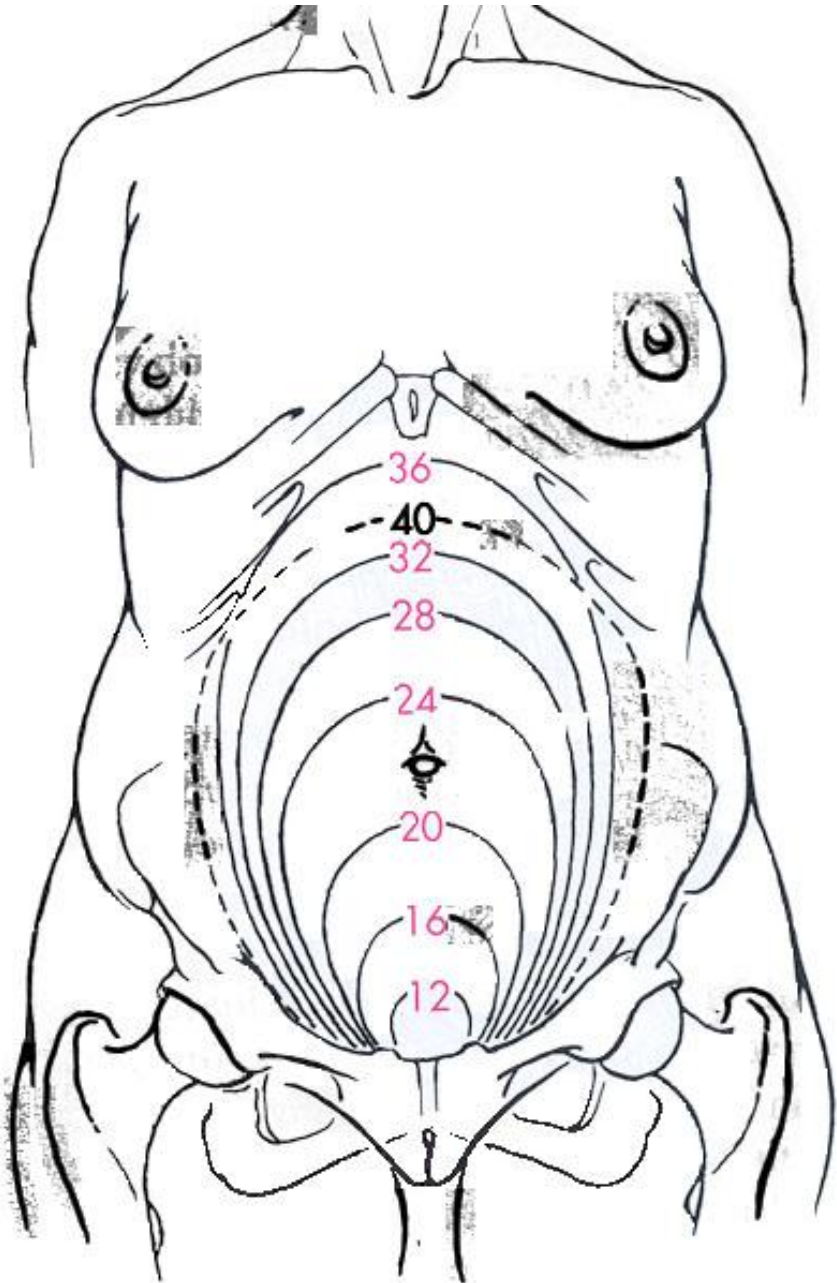
Other labs



Topics of  
discussion &  
education



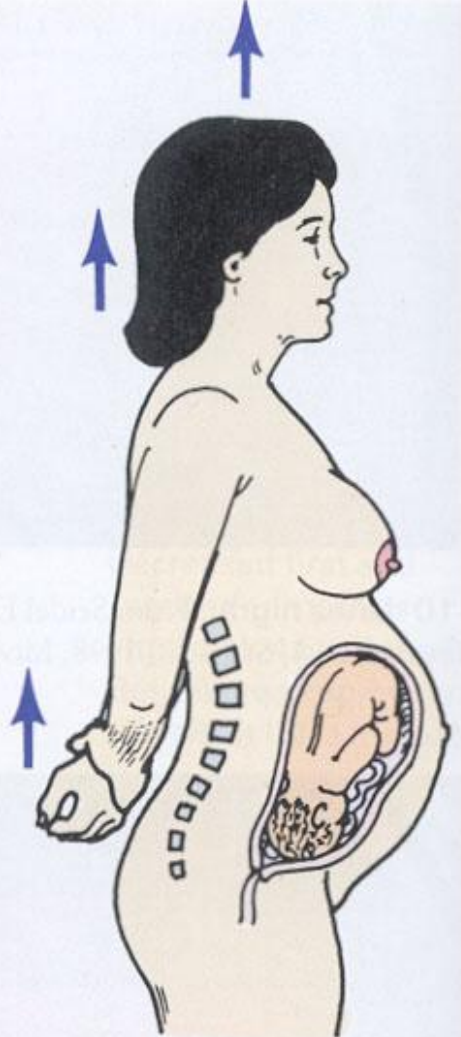
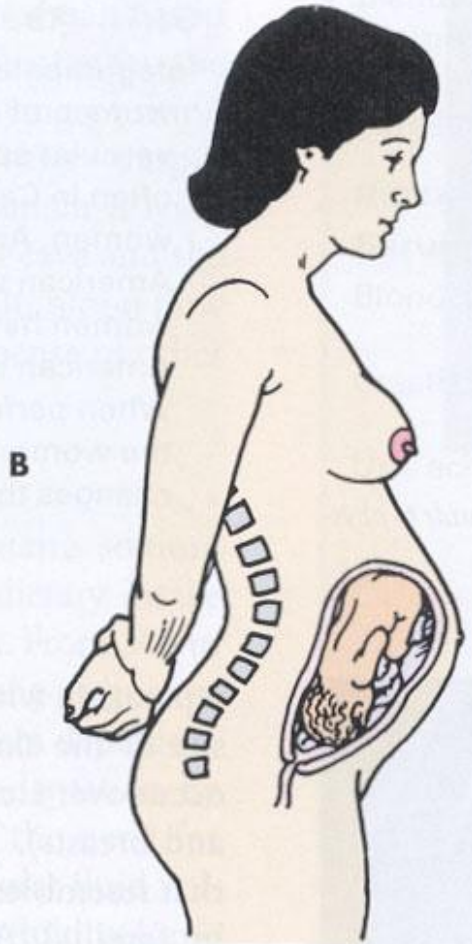
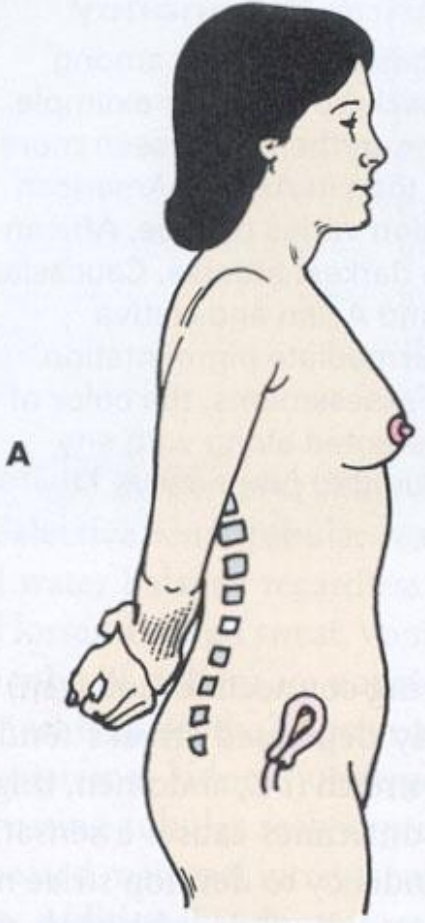
Cervical exam  
(at term)

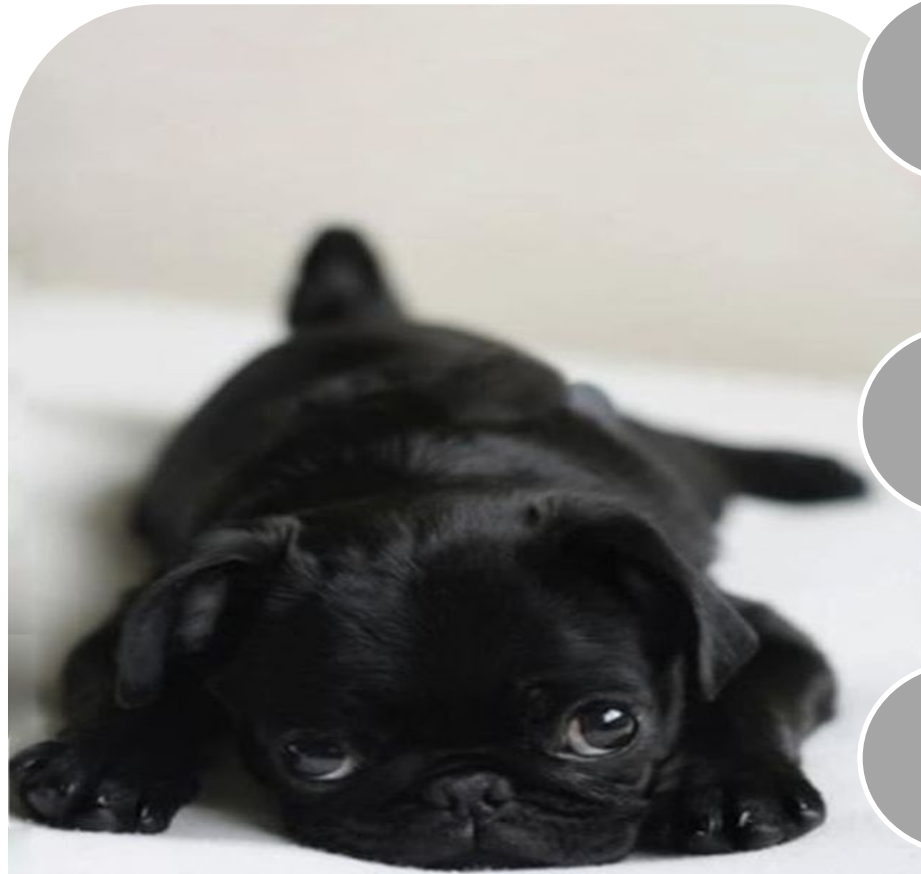


# Common discomforts & symptoms <sup>10</sup>

- 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

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

Coping skills

Relaxation

# Prenatal testing—in sequence <sup>12</sup>

## 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

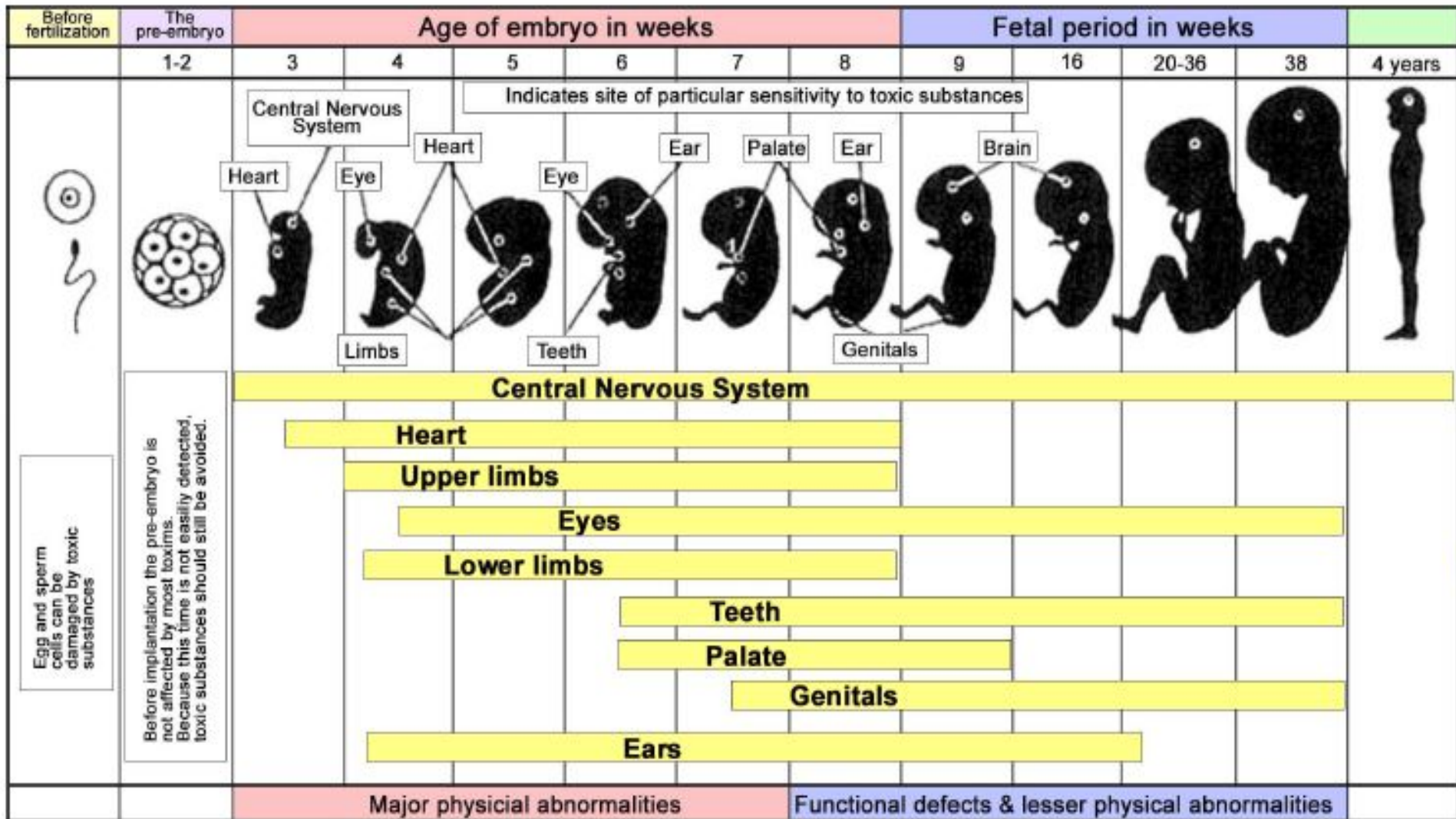
- Alpha-fetoprotein (MSAFP)

26-28 weeks

- Glucose challenge test (GTT)
- Possible repeat of STI testing

35-37 weeks

- Group B Strep culture (GBS)



Infertility

Previous  
cesarean  
section

Multiple  
pregnancies

Previous  
pregnancy  
loss

# Risk Factors by Past History

Past deep vein  
thrombosis  
(DVT) or  
pulmonary  
embolus (PE)

Age—teen or  
over 35

Family  
history/genetic  
conditions

Thyroid  
disease

Diabetes,  
Type I or II

Kidney  
disease

Heart  
disease

# Risk Factors by Medical Problems

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 <sup>13</sup>

- Anemia
- High blood pressure, PIH
- Preterm labor
- Infections—UTI, viruses
- Placenta previa
- Placental abruption
- Gestational diabetes
- Exposure to chicken pox, rubella



## Gestational Diabetes



High blood glucose levels in mother



Brings extra glucose to baby



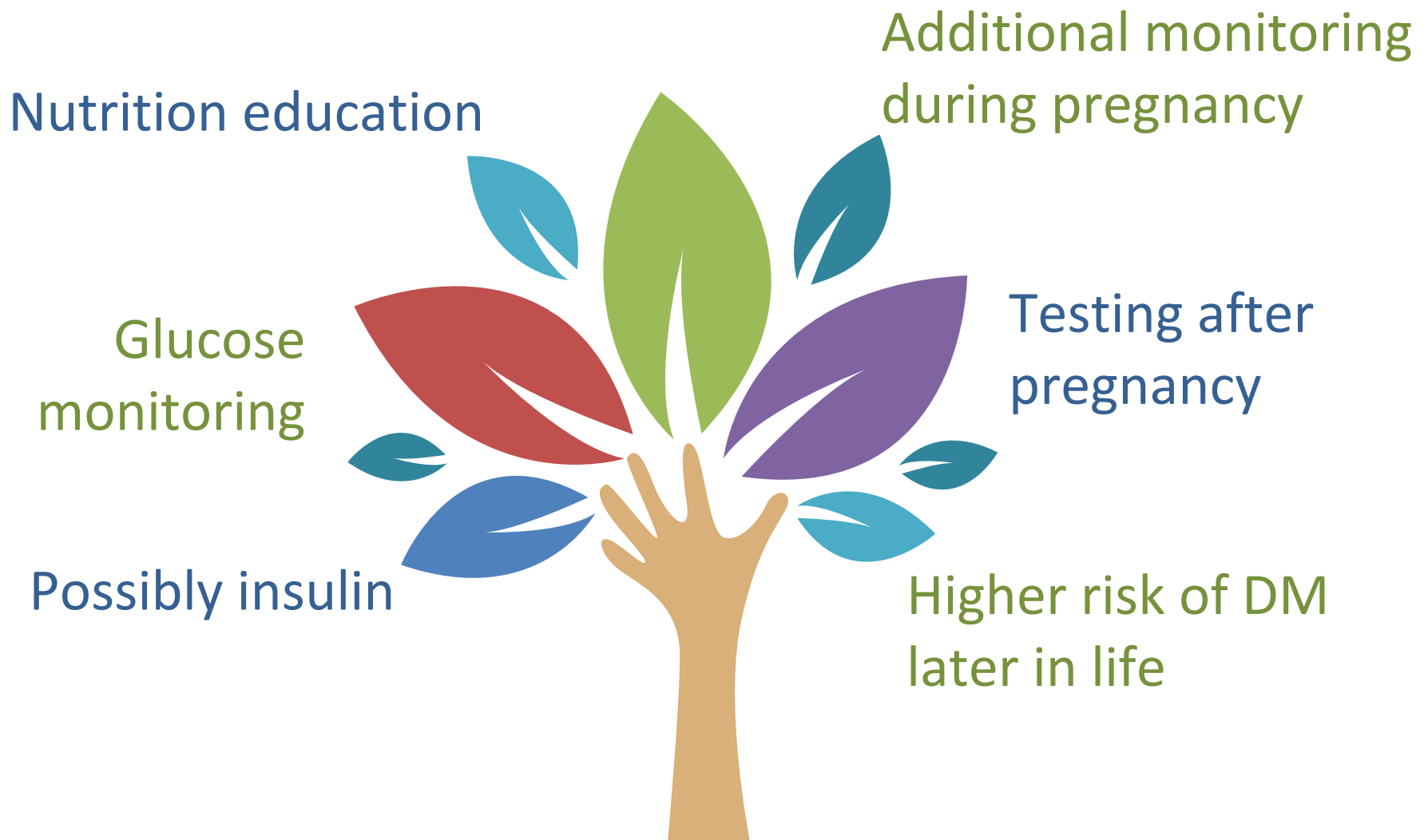
Causes baby to put on extra weight



- (1) Mother's blood brings extra glucose to fetus
- (2) Fetus makes more insulin to handle the extra glucose
- (3) Extra glucose gets stored as fat and fetus becomes larger than normal

Routine testing 24-28 weeks

# Gestational Diabetes Treatment





# 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



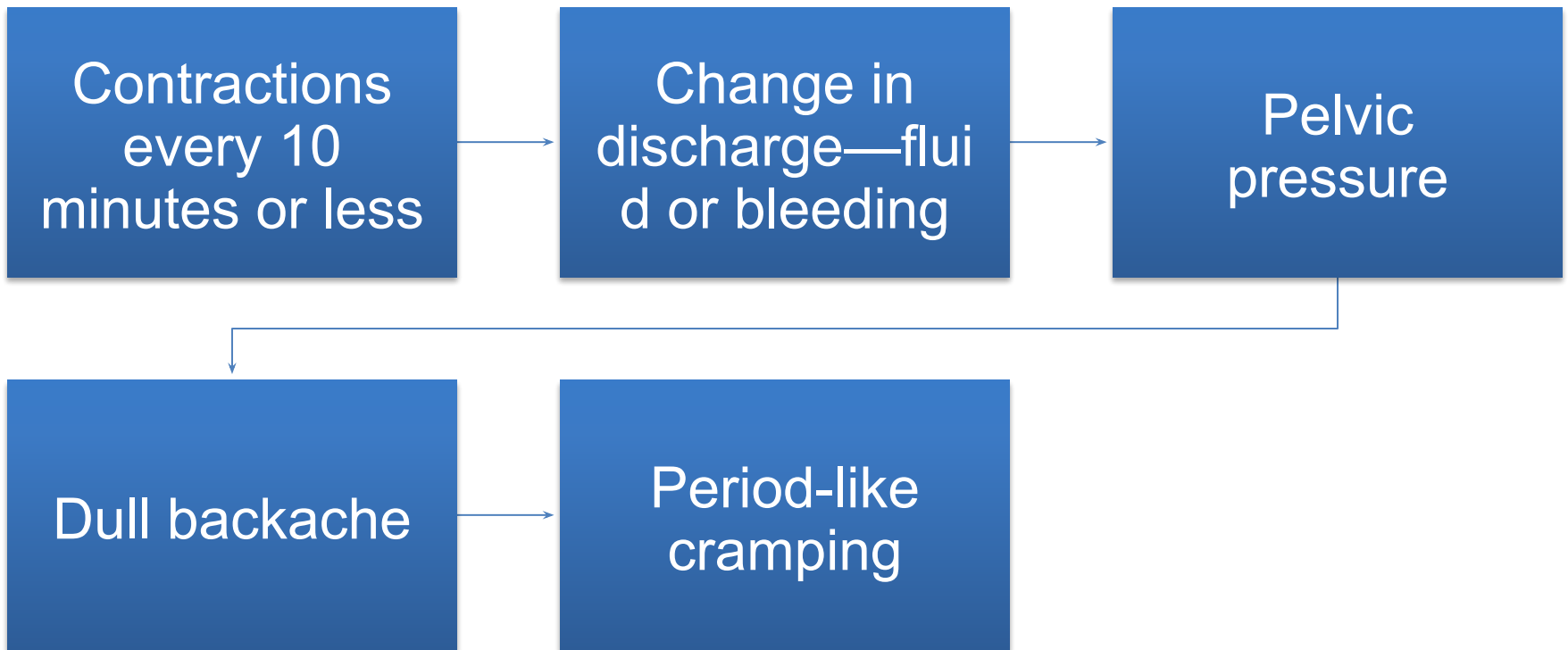
# Preterm labor



**37th Week Pregnancy**

# Preterm labor

Risk to baby—lungs and other organs not mature



Self Care

# Oral health during pregnancy...

- ✓ Treatment of periodontal disease can decrease risk of GDM, PTL



A close-up photograph of a person's torso and lap while seated in a car. The person is wearing a teal-colored t-shirt and a dark grey or black seat belt. The seat belt strap is visible across the person's chest and lap. The background shows the interior of the car, including a black plastic center console and a portion of the steering wheel. The text "Seat belts" is overlaid in white at the bottom right of the image.

Seat belts

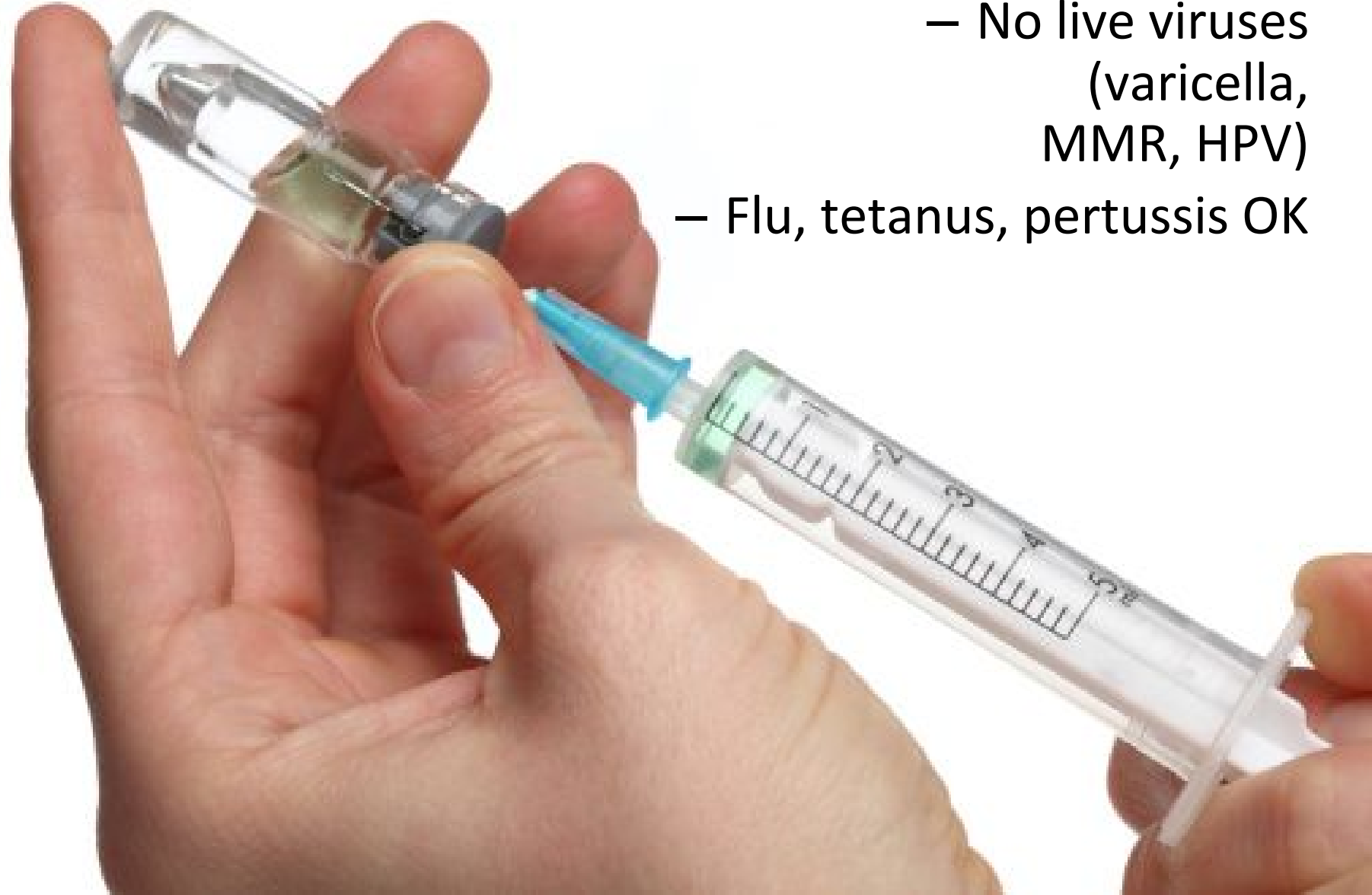
# Medications

- 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



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Substance Abuse

Smoking—smoking cessation treatment

2<sup>nd</sup> hand smoke higher in tar, nicotine, CO

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Spouses and babies of smokers have more respiratory illnesses  
No safe amount

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Alcohol—fetal alcohol syndrome

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Drugs—refer for treatment

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Drug screening may be done

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High risk for pregnancy and newborn complications

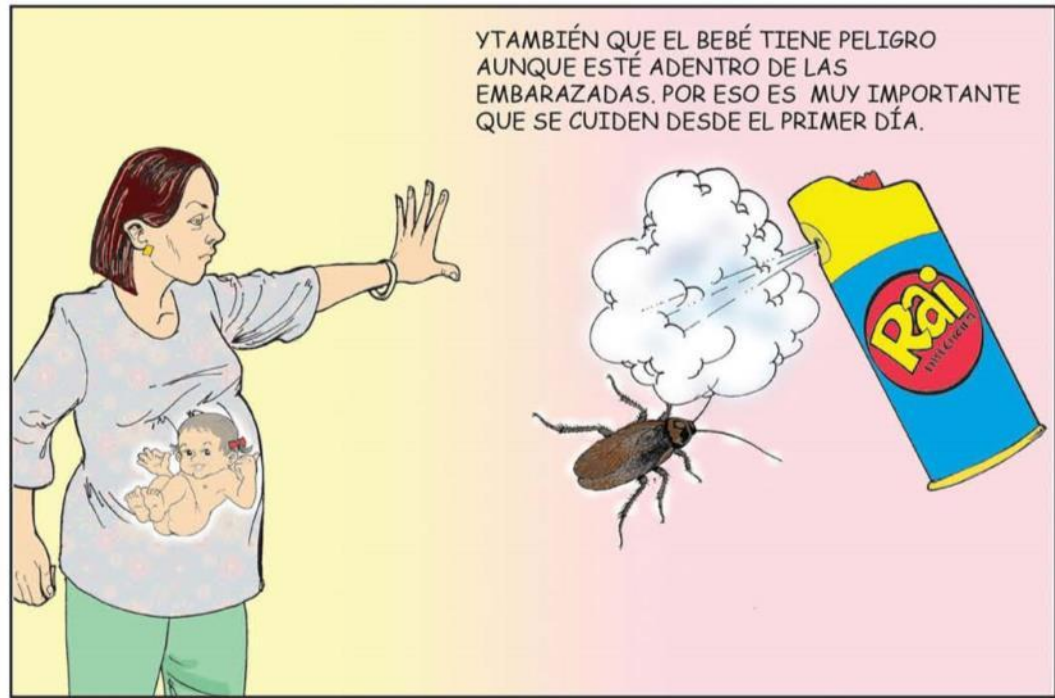
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# Chemical exposures

At home and work

Lead screening

Pesticide exposure



# Prenatal Nutrition<sup>16</sup>

- 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

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Date of Birth: _____	Place of Birth: _____
Marital Status: S M D W Sep Cohabiting _____	Migrant or Permanent: _____
Ethnic Origin: _____	Pregnant: Yes ___ No ___
	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 \_\_\_

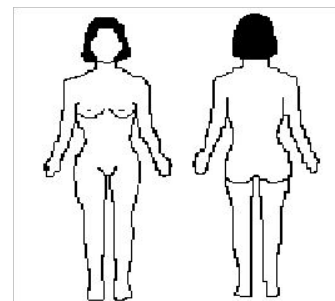
If the answer is Yes, the person who abused you was

HUSBAND      BOY FRIEND      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      BOY FRIEND      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?

# Other Self-Care Measures <sup>16</sup>





# Migrant Women <sup>18</sup>

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



# Pregnancy in Migrant Women <sup>19</sup>

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

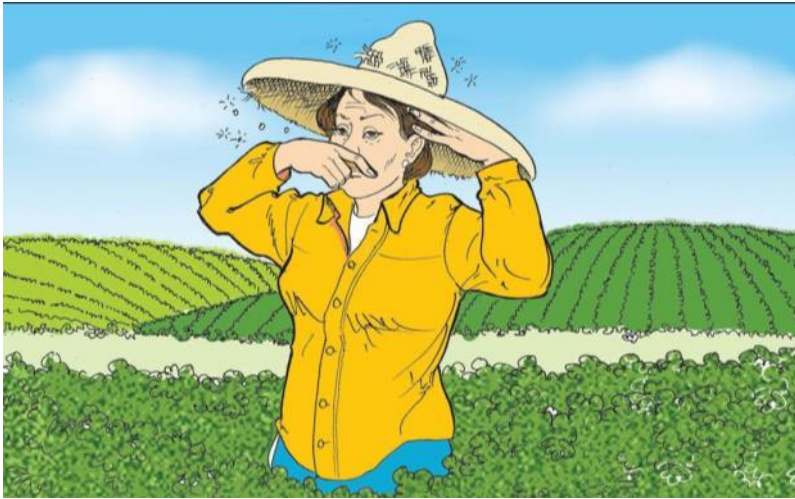
14,20

- 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 <sup>16</sup>

## 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<sup>21</sup>



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

4<sup>th</sup> baby with similar  
birth defects in  
Mexico

Violeta born with  
multiple birth defects,  
died within 3 days

*Resources...*



# HEALTH NETWORK 22

## Bridge Case Management



# Comic book: pregnancy & pesticides <sup>23</sup>



***Lo Que Bien Empieza... Bien Acaba***

<http://www.migrantclinician.org/issues/occupational-health/pesticides/pesticide-comic-books.html>

# 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/))
- HRSA Find a Health Center <http://findahealthcenter.hrsa.gov/>
- Hesperian Health Guides ([www.hesperian.org](http://www.hesperian.org))

# Questions?

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