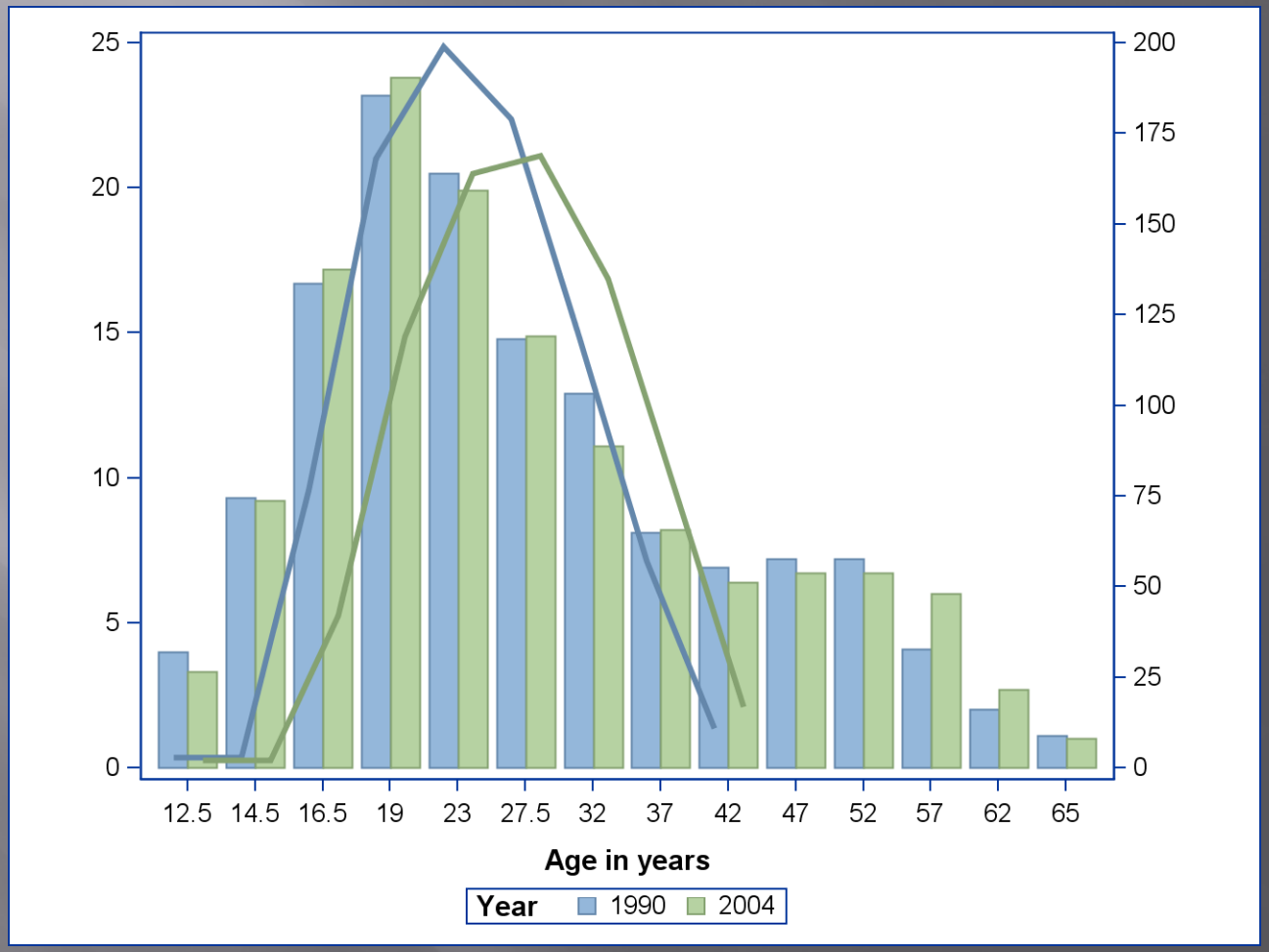
SUBSTANCE ABUSE IN PREGNANCY

Charles W. Schauberger, MD, MS
Gundersen Health System
La Crosse, WI

Scope of the Issue

- National prevalence studies suggest between 3 and 5% in the past. A study we performed demonstrated a 13% prevalence rate for new OBs
- Median age: 26
- Median gravidity: 2

Age of Pregnancy and Drugs



Scope of the Problem

- 50% of all pregnancies unplanned. 85% in women with SUD (Heil et al, 2011)
- Only 50% of women with SUD use contraception (Terplan et al, 2015)
- Critical organogenesis is well underway before the pregnancy is often identified
- Drug –dependent women are no more likely to seek an elective termination than the non-using population (Martino et al. 2006)

Special Problem in Pregnancy

- All drugs cross over the placenta
- Long-term effect of many drugs are unknown
- Maternal complications include higher rates of STDs and psychiatric comorbidities
- Co-existent social issues
  - Housing insecurity
  - Food insecurity
  - Legal issues
  - Transportation problems, esp rural patients

Dawn

- 25 yo G3P2 woman with history of snorting heroin. Quit when she found out she was pregnant (10 wks)
- Bought some buprenorphine off the street for a few days
- Presented day 4 of withdrawal with body aches, nausea, vomiting, profuse sweating
- No place to stay
- Started on Buprenorphine
- Agreed to residential treatment

Dawn

- 8 days into inpatient rehab, came in sobbing, hating rehab
- History of foster care as a child. Is trying to regain custody of her 4 and 5 year olds
- Has ADHD, on Concerta
- Was missing for several months
- At 32 weeks, readmitted to residential treatment
- Admitted to Gerrard Hall
- Had remained on Subutex for duration
- Planned repeat cesarean section. However, came in 2 days early with cord prolapse
- Readmitted with endometritis

General Concepts of Care

- Get women into a system of care as early as possible
- Multidisciplinary team care
  - Doctors- Obstetricians, Psychiatrists, Addictionologists, Pediatricians
  - Nurses
  - Social workers
  - Behavioral Health & Addiction Counselors
- Screen for STDs, hepatitis B and C

General Concepts of Care

- Screen for domestic violence
- Educate patient about adverse outcomes
- Refer to drug counseling program
- Preterm labor risk as high as 60% in polysubstance patients (Almario et al 2009)
- Sequential antepartum assessment of growth
- Monitor with urine toxicology
- Refer fetus/newborn to pediatrics
- Get ready for the upcoming transition

Barriers to Care

- Housing insecurity
- Fear of custody loss
- No show rate
- Money
- Poor communications
- Transportation
- However, doors to treatment programs are more open

Leah

- 25 yo G2P1 woman on chronic maintenance methadone. Presented in early pregnancy and established prenatal care.
- All urine screens had been negative
- Went into premature labor at 33 weeks. Cesarean section done for breech presentation
- An additional successful pregnancy
- Effort made to taper off, but relapse occurred

Motivation for Providing Care

- The OB care is not particularly difficult
- High risk, but a pattern of high risk most obstetricians/family practitioners can manage
- You need to be compassionate/empathetic
- Much more time and resource consuming. You can't manage these people by yourself
- You will build your reputation- not only for these patients, but other related disorders
- If you aren't on salary, you could starve

Team Approach

- "The team is stronger than the sum of its parts"
- Care coordination, care team approach
- Care "beyond our walls"
- Close ties with other addiction clinics
- Strong relationship with CPS and criminal justice system

Care at Gundersen

- Obstetricians
- Nurses
- Care Coordinator
- Social workers
- Addiction specialists
- Drug counselors
  - Inpatient
  - Outpatient
- Mental health counselors
- Neonatologists/Peds

Second Circle

- Bruce Kerr, MD- addictionologist
- Susan Ragan, RN- nurse of MAT-A
- Susan Storandt, MA- nurse of MAT-A
- Pediatric Hospitalists
- Gunder Kids
- Countless AODA counselors, social workers, and others
- Dental Clinic, prostodontics
- Pain Clinic

Third Circle of Care

- AMS- addiction clinic
- Mayo- La Crosse
- Driftless Recovery
- Community Health Resources- Health Families, Birth to 3, WIC
- Community Resources
  - Criminal Justice system. Parole Officers, court system
  - Child Protection Services
- Western Technical College
- Dental Community

Screen All Patients for Risk:

- Past drug usage (history of problems with drugs)
- Present usage (use in the past month)
- Partner usage (current or past)
- Parent usage
- Smoking history

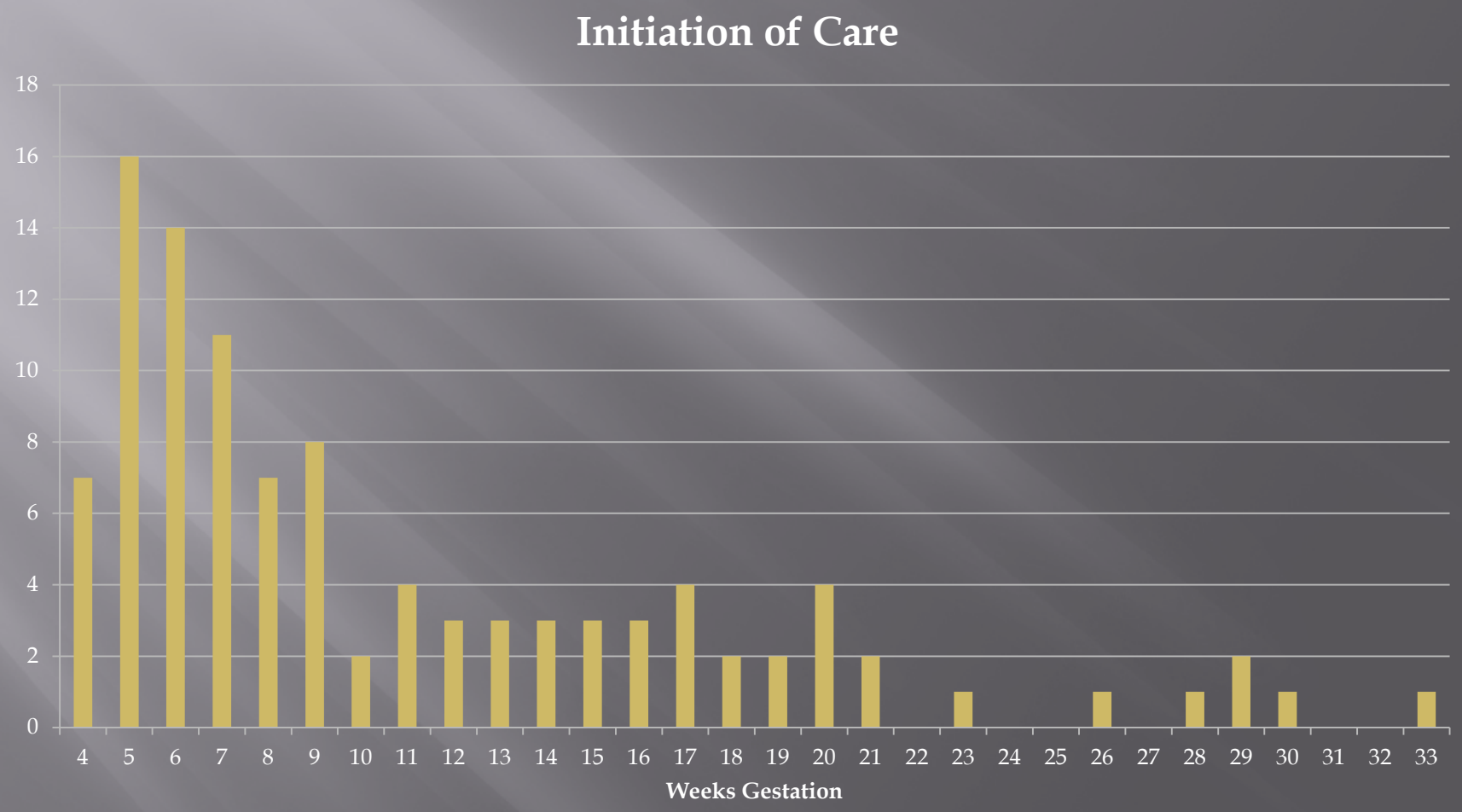
Sensitivity: 91%

NPV: 98%

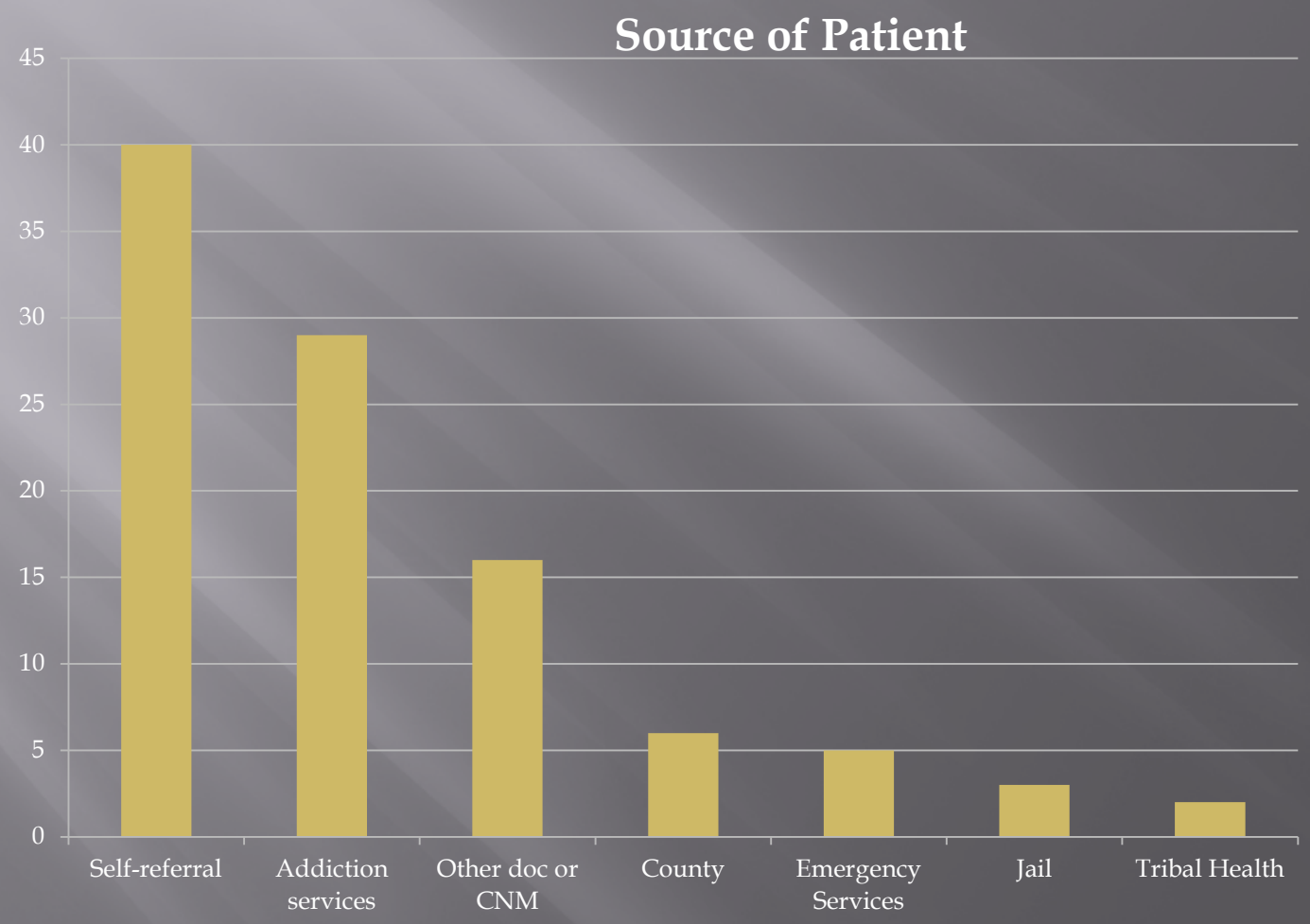
Patient Profile

- Drugs of choice: Opiates, marijuana. Meth is increasing
- Drug and zip code: TBD
- Average drug screens per pregnancy: 8.8
- Drug screens with unprescribed drugs: 0.7
- Number of patients with + UDS: 60%

Getting Patients into the System



Referral Sources

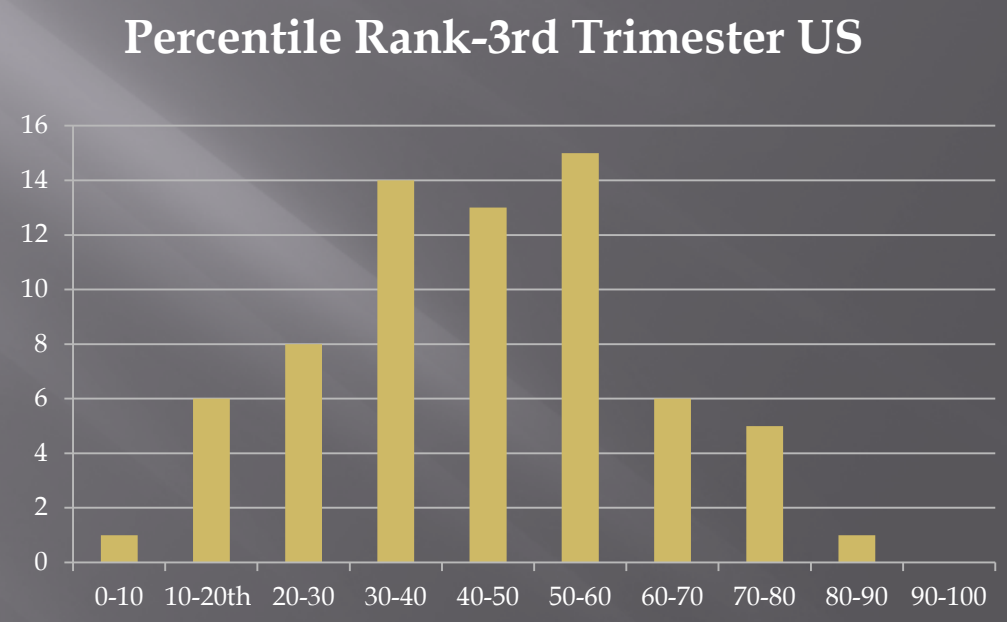


1st Ultrasound Results

- 88 % of those who entered our system before 12 weeks underwent a transvaginal ultrasound.
- 77% had their due dates set by ultrasound, not LMP.
  - Rate for our non-SUD patients was 36%
- Identify miscarriages early
- Several sets of twins, other anomalies
- Obtain buy-in from the patients very early
  - May decrease drug use in preliminary studies

Third Trimester Ultrasound

- 89% of our patients underwent ultrasound at approximately 32 weeks
- Few IUGR, but lower weights



Pediatric Hospitalist Visit

- 85 % of OMT patients saw a pediatric hospitalist during their pregnancy
- Aim for 32 weeks
- Discuss risks of illicit drugs, safety of prescribed medications
- Patients receive information about what will happen to their baby after delivery
- Finnegan scoring is introduced

NAS Care

- Pediatric Hospitalists provide this care
- Care is provided on the maternity floor, not NICU
- High focus on maternal-neonatal bonding and teaching mothers

NAS Rates
(through April 2016)

Drug	NAS	Patients	% NAS
Methadone	14	23	61*
Buprenorphine	12	50	24*
Other	1	36	3*
Chronic pain	2	27	7
		* $p < 0.0001$	

GunderKids

Pediatric and Adolescent
Comfort Care
1 Month's Supply
HUGGIES
Pampers

GunderKids

- Program begun in 2015 by our Pediatrics Department
  - Dr Ann Budzak-Garza and others
  - Nurses, social workers, occupational therapist
- 17 visits over the first year
- In depth assessment of neonatal progress
- High parent acceptance
- Results- TBD

In Summary

- Early ultrasound- 8+ weeks
- Ultrasound@ 20 weeks- fetal survey
- Work with the addiction team
- Random urine screens for drugs of abuse
- 32 week visit with peds hospitalists
- Fetal monitoring for growth and premature labor (NSTs and BPPs as needed)
- Social support