



# Minnesota Child Protection Conference: Connections Matter

## SDM Risk Assessment

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# What is Structured Decision Making

- Comprehensive case management system
- Structures the critical decision points in the life of a case
- Utilizes research based assessment tools
- Uses an actuarial model for estimating the probability that a critical event will occur
- The SDM Family Risk Assessment estimates the probability of child abuse and neglect occurring in the future



# History of SDM in Minnesota

- Seven metro counties began using SDM in 1999
- Additional counties added with the support of DHS
- By 2004 all 87 counties were using SDM in child protection cases within the Social Service Information System



# Need for Family Risk Assessment Validation Study

- Minnesota's Family Risk Assessment tool was based on research in Michigan in 1992-1993 and needed to be updated and based on Minnesota population
- Original research did not include significant numbers of Native Americans
- Minnesota's implemented a differential response system subsequent to the use of SDM



# IAR Validation Study

- The Institute of Applied Research was contracted to do a validation study of SDM Family Risk Assessment in Minnesota
- IAR found the FRA to be generally predictive and reliable but less effective with Native American and African American families



# CRC Validation Study

- Minnesota contracted with the Children's Research Center to complete the recalibration of the SDM FRA tool as recommended by the IAR study.
- Specifically wanted to address improved prediction capacity across all racial and ethnic groups



# What is actuarial risk research?

- A simple statistical procedure for estimating the probability that a "critical" event will occur at some future time.
- In the auto insurance industry, the critical event is a car accident involving a driver insured by the agency. Among breast cancer patients, the critical event is recurrence of cancer.
- In this case, the critical event is the **likelihood of future child maltreatment.**



# Prospective Study Sample

## Sample Period:

Observe Sample  
Investigations and  
AR Assessments

## 18-Month Follow-Up Period:

Observe Sample Case Outcomes\*

**7/2003 or  
1/2004**  
(varied by county)

**12/2004**

**6/2005**

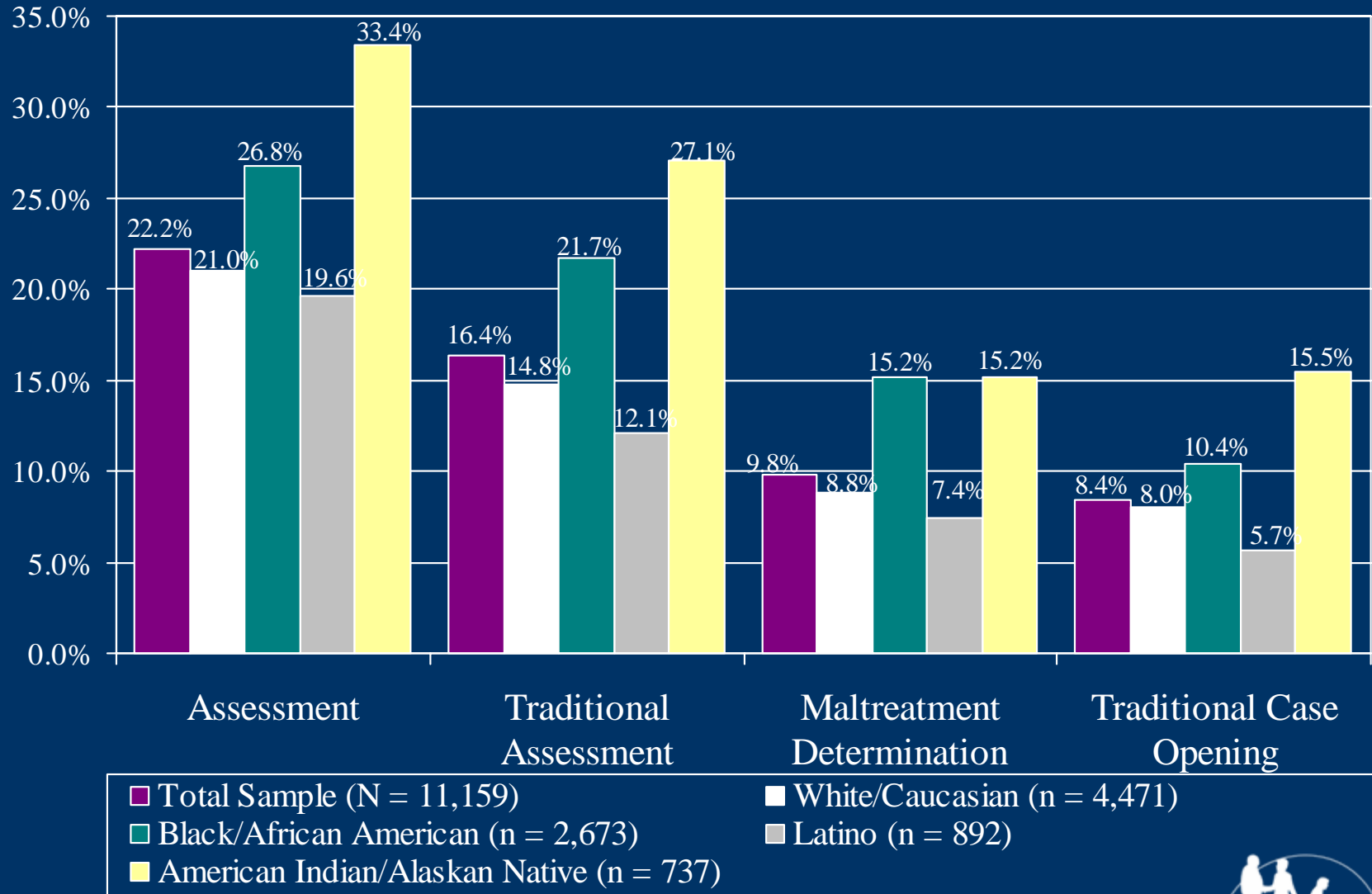
\*Outcomes included:

Any assessment  
Traditional investigation  
Maltreatment determination  
Traditional case opening

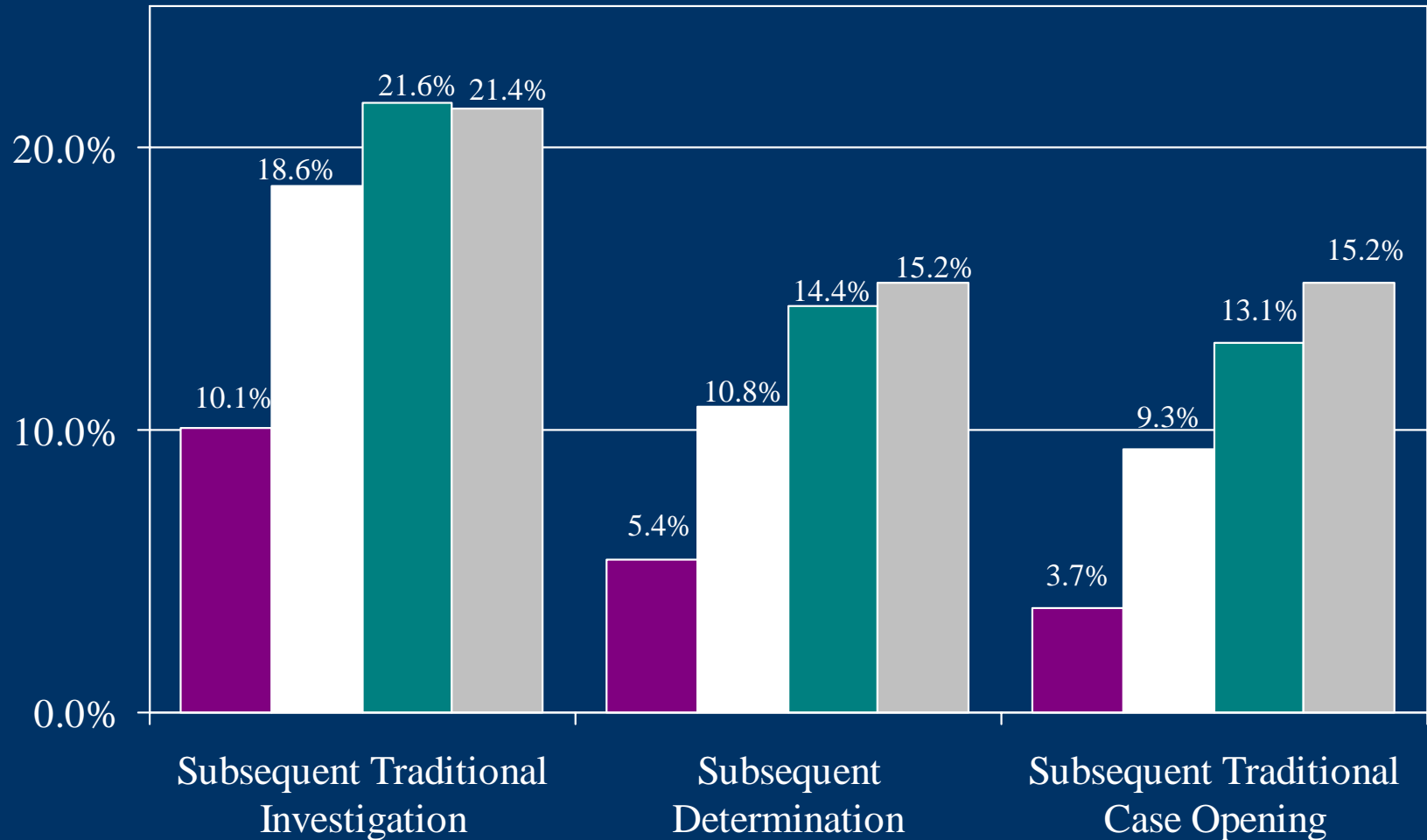




# Maltreatment Outcome Rates for Racial/Ethnic Groups with Adequate Sample Size



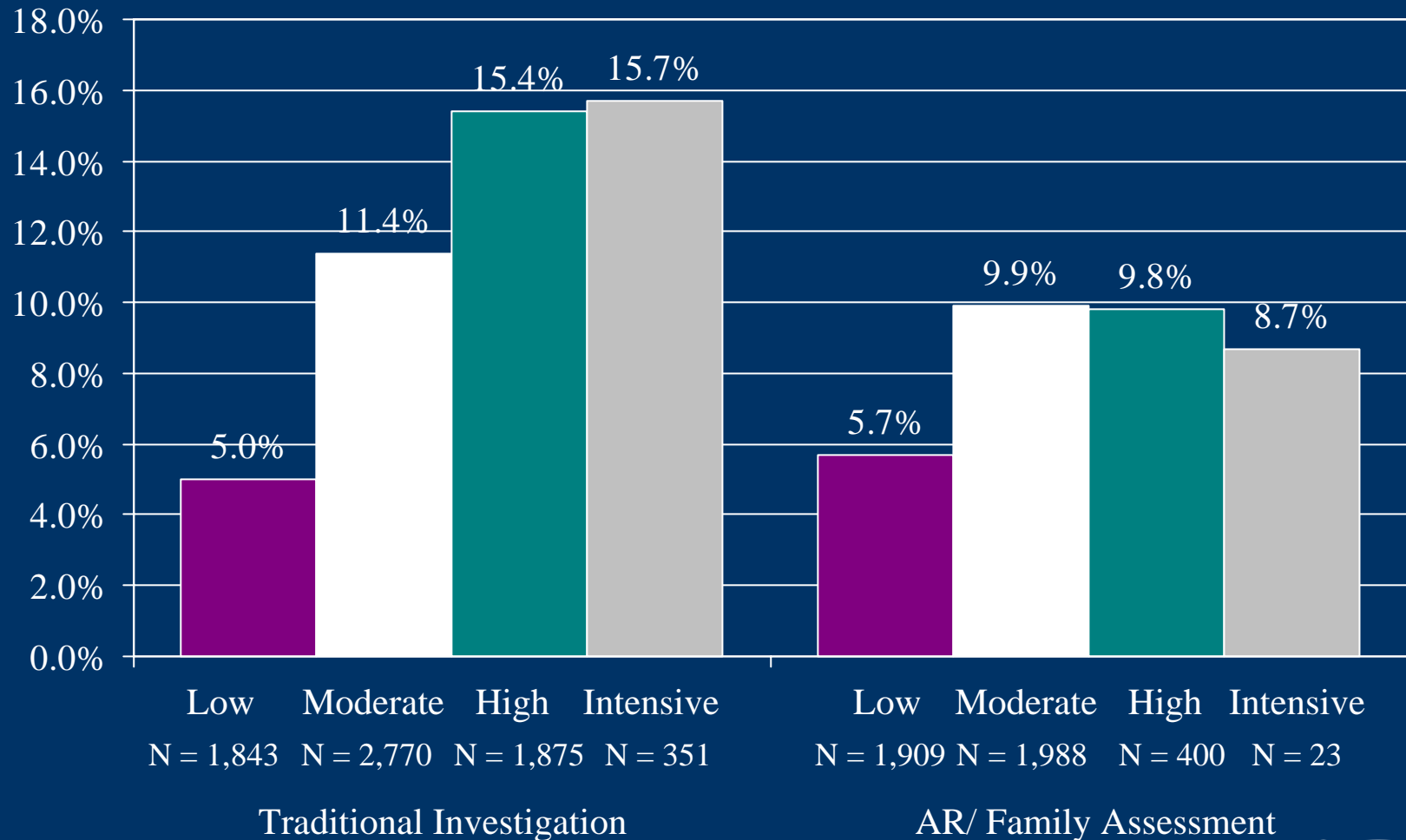
# CPS Outcomes During the 18-Month Follow-Up Period by Current Risk Classification



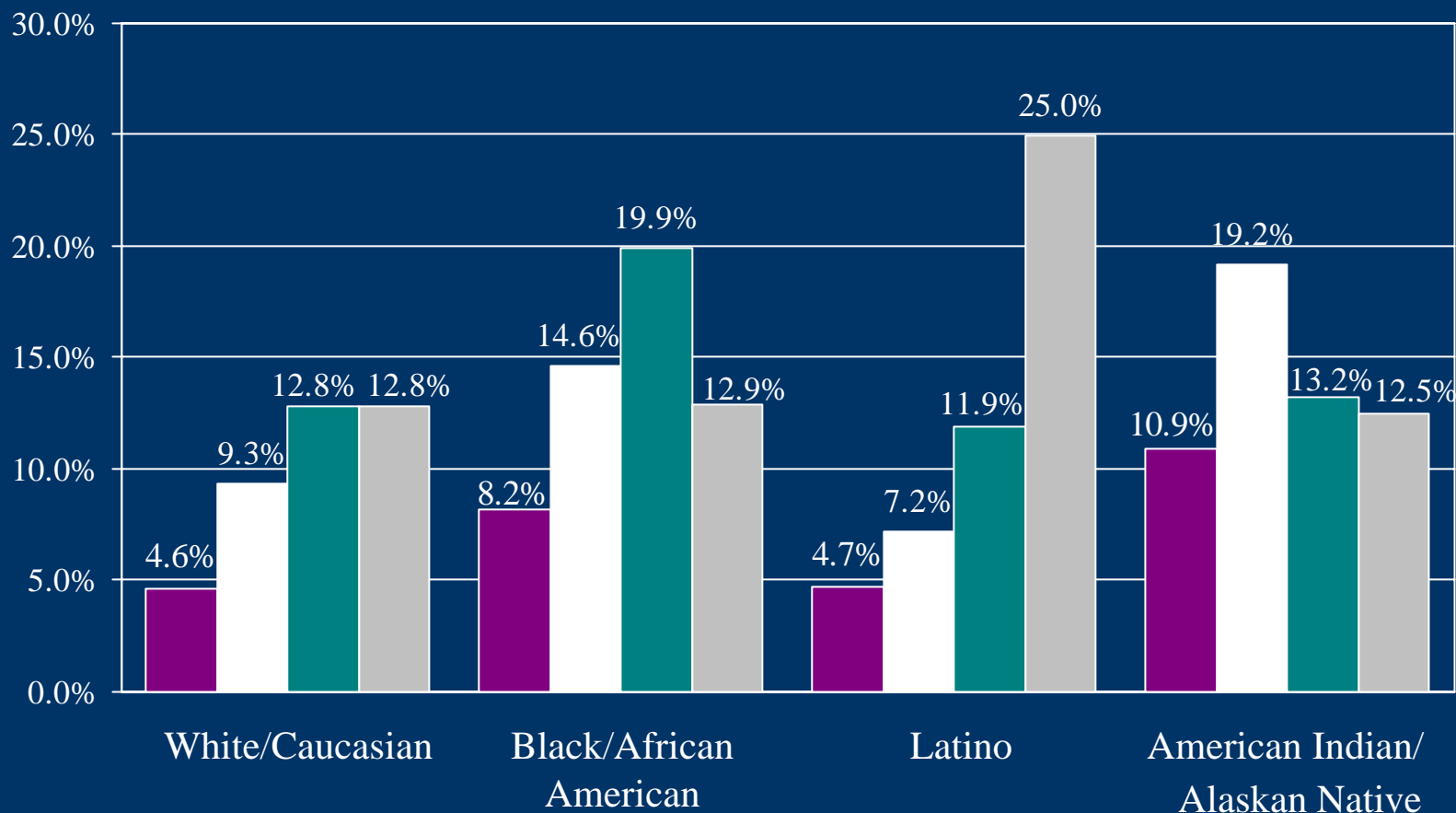
■ Low (N = 3,752) ■ Moderate (N = 4,758) ■ High (N = 2,275) ■ Intensive (N = 374)



# Subsequent Maltreatment Determination by Current Risk Classification for Investigation/Assessment Track



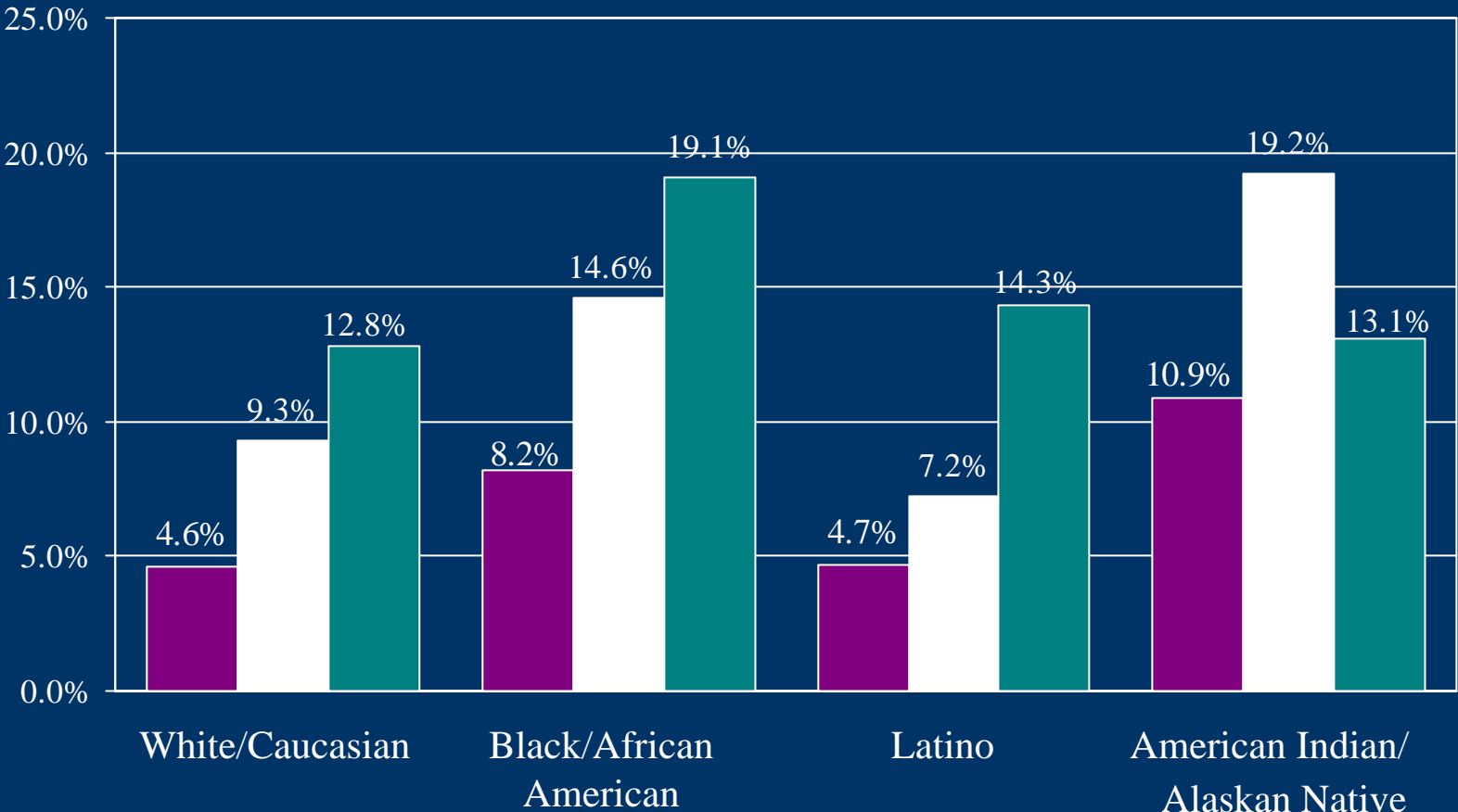
# Subsequent Maltreatment Determination by Current Risk Classification for Caregiver Race/Ethnicity



Low	N = 1,360	N = 851	N = 363	N = 147
Moderate	N = 1,884	N = 1,229	N = 375	N = 307
High	N = 1,048	N = 523	N = 126	N = 235
Intensive	N = 179	N = 70	N = 28	N = 48



# Subsequent Maltreatment Determination by Current Risk Classification (3 Levels) for Caregiver Race/Ethnicity



Low	N = 1,360	N = 851	N = 363	N = 147
Moderate	N = 1,884	N = 1,229	N = 375	N = 307
High/Intensive	N = 1,227	N = 593	N = 154	N = 283

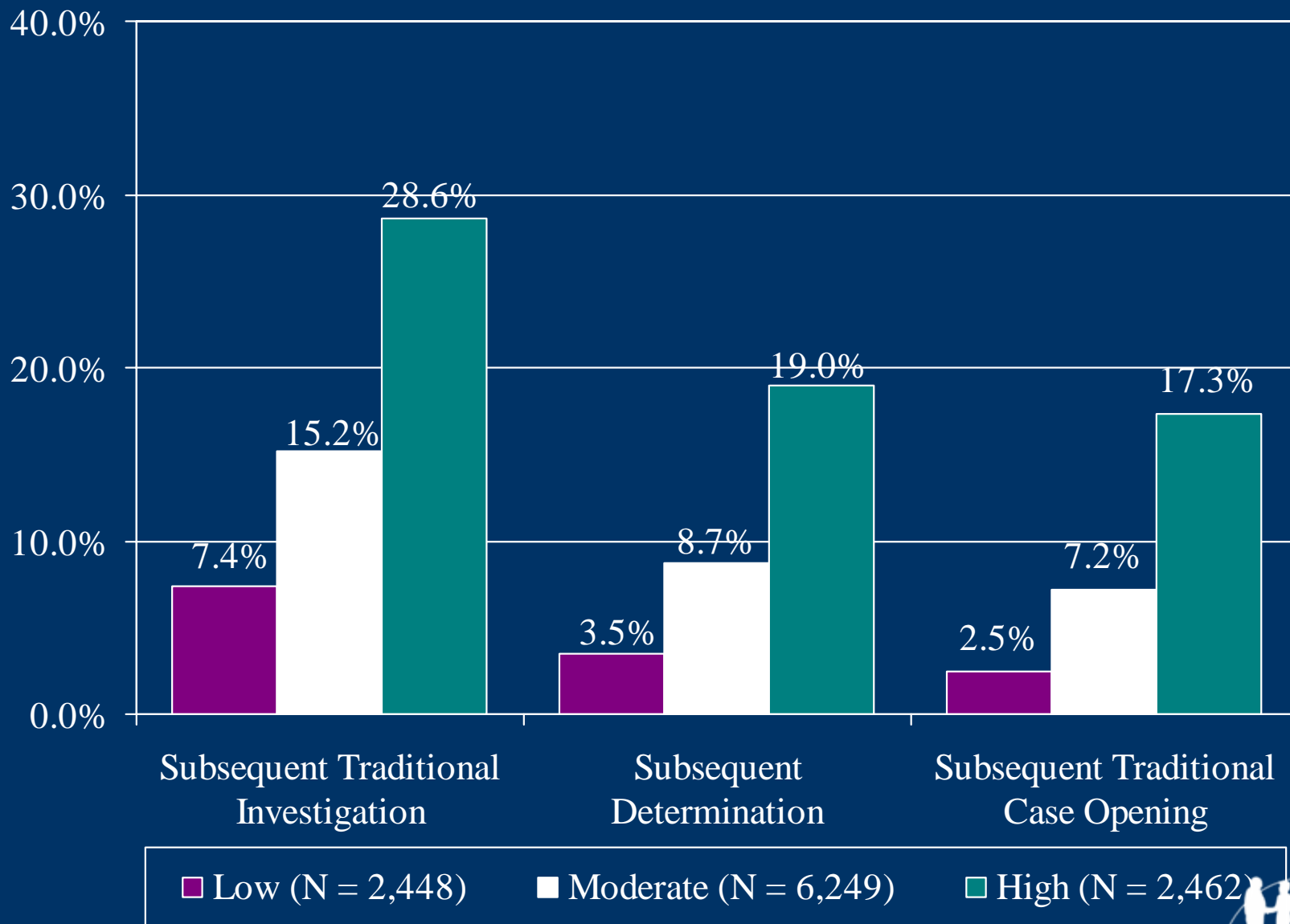


# Summary of the Current Risk Assessment's Performance

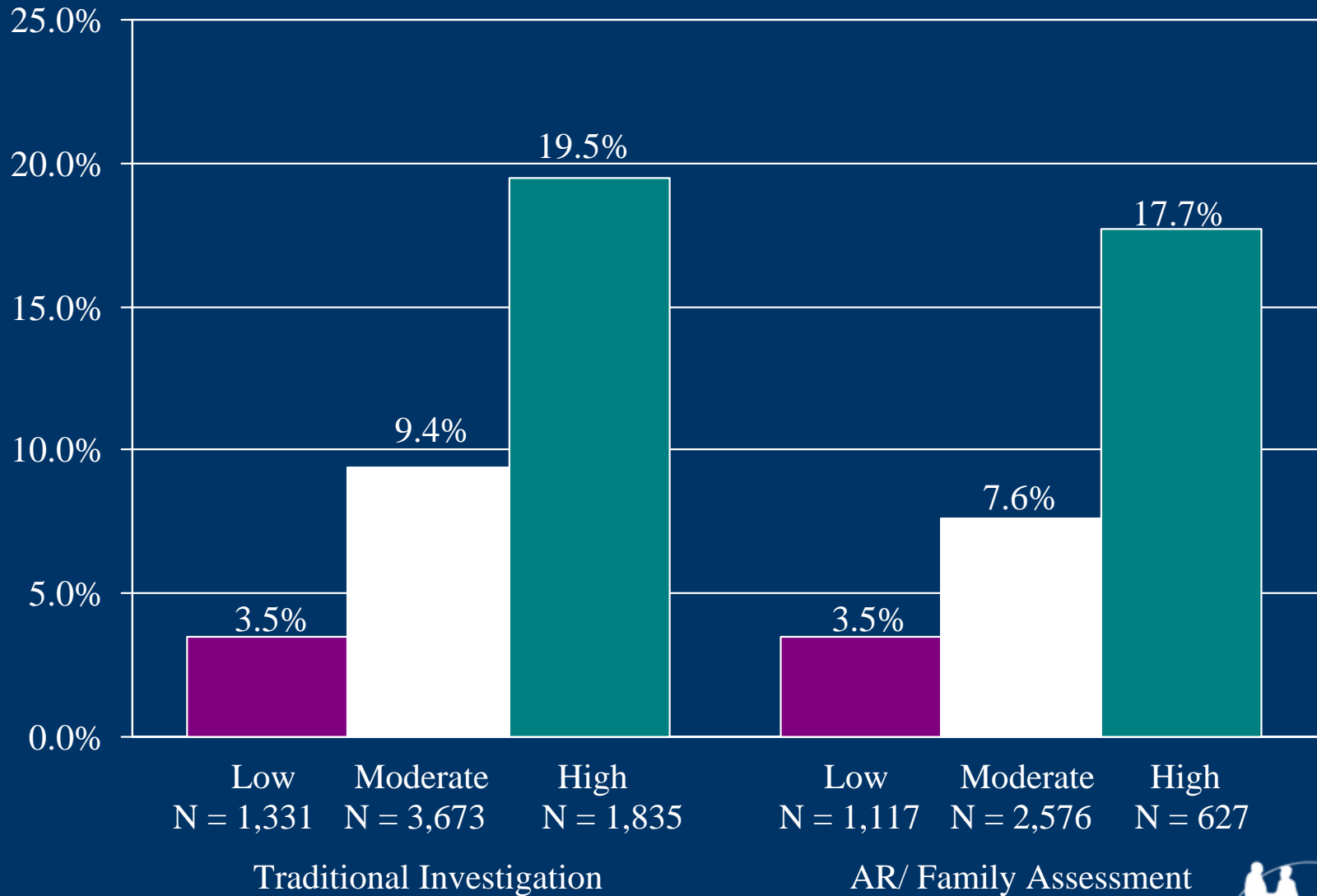
- Distinguished between families classified at low versus higher risk levels.
- Very few intensive risk families.
  - High and intensive risk families had similar outcome rates
- For some subgroups of the sample, the risk assessment also failed to distinguish well between moderate and high risk families.
  - Families assessed using AR methods
  - American Indian/Alaskan Native families
- Current risk assessment is based on research conducted in Michigan in 1992 that observed only families in a determined maltreatment incident.
- An independent analysis was conducted to develop a proposed risk assessment.



# CPS Outcomes During the Standardized 18-Month Follow-Up Period by *Proposed* Risk Classification

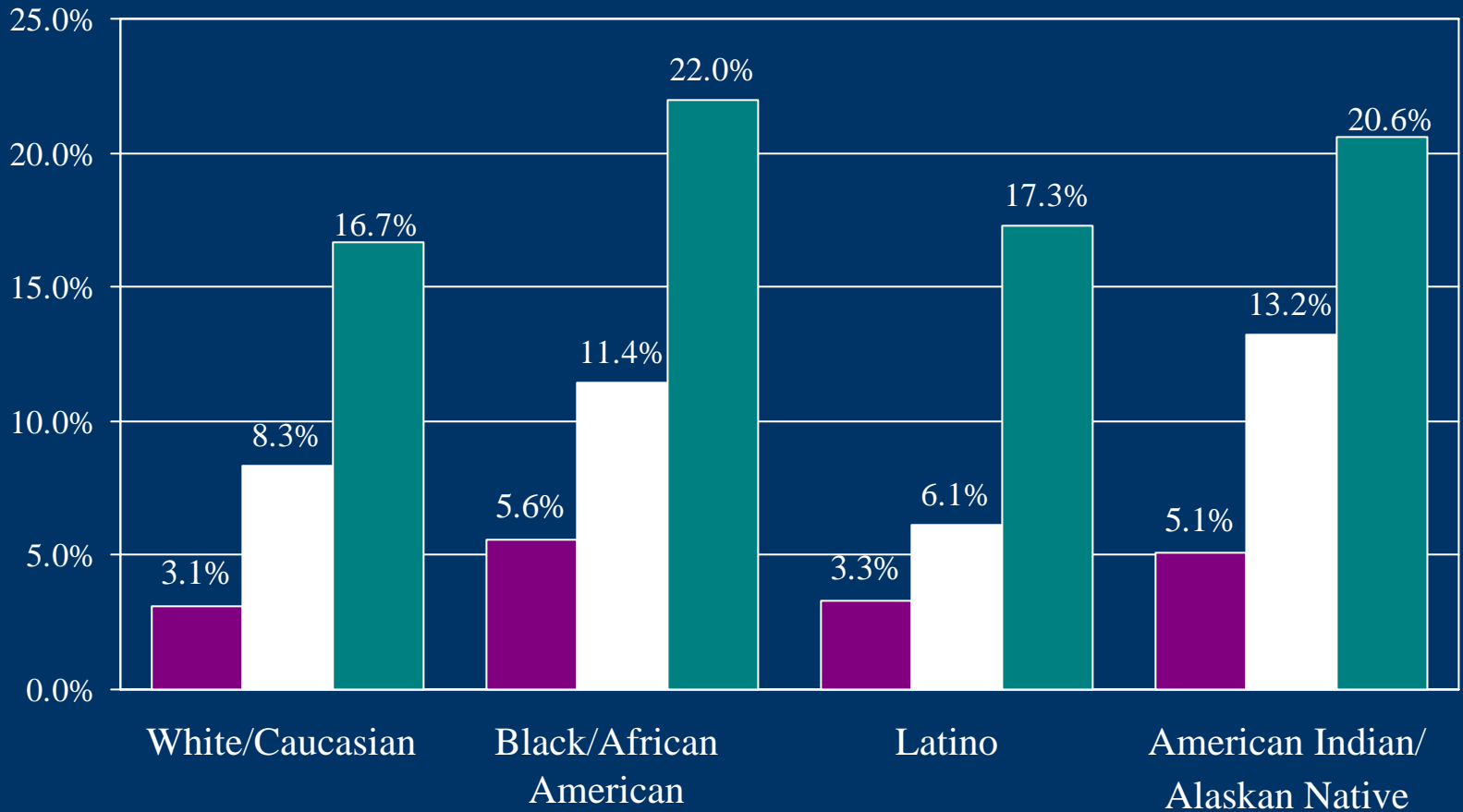


# Subsequent Maltreatment Determination by *Proposed* Risk Classification for Investigation/Assessment Track





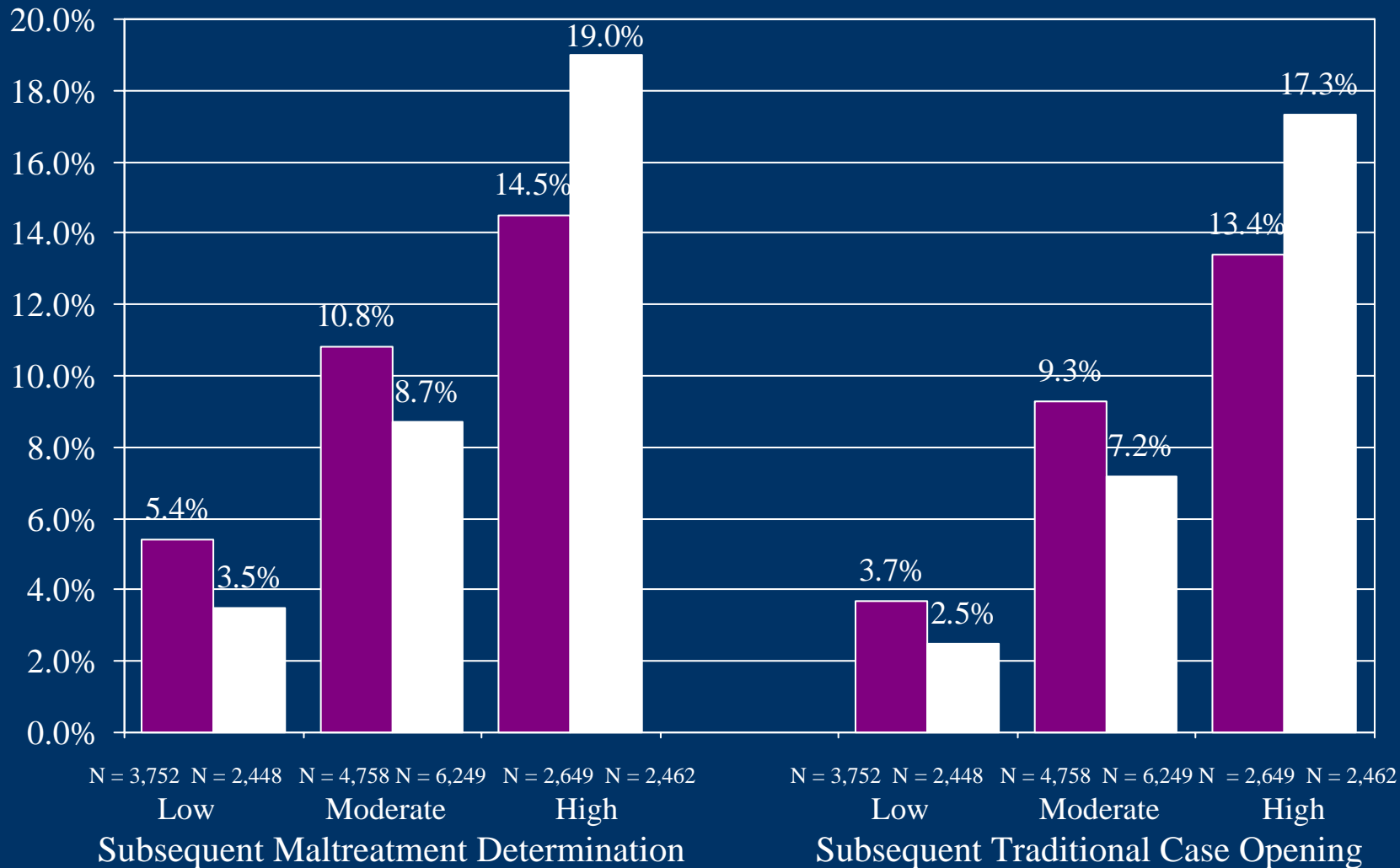
# Subsequent Maltreatment Determination by *Proposed* Risk Classification for Caregiver Race/Ethnicity



Low	N = 1,034	N = 414	N = 181	N = 78
Moderate	N = 2,514	N = 1,487	N = 561	N = 372
High	N = 923	N = 772	N = 150	N = 287



# Comparing Three-Level Risk Classification Findings by Determination and Traditional Case Opening During the 18-Month Follow-Up Period



N = 11,159

■ Current Risk (High/Intensive Risk Combined)   
 ■ Proposed Risk



# Actuarial Risk Assessment Limitations

- Estimates the future probability of child maltreatment among families with similar characteristics. It does not yield infallible predictions for individual families, nor is it a substitute for sound professional judgment.
- Appropriate use requires that workers understand how risk assessment instruments work and receive the training and policy guidance necessary to employ them effectively.
- Workers may override the scored risk assessment classification based on agency policy or discretionary judgment.



# Implementing Study Recommendations

- Revised FRA will replace current tool
- State-wide retraining of all social workers using the revised FRA to occur in July, 2007
- New FRA to be made available on SSIS to correspond with retraining
- County supervisors encouraged to use case review to assure quality of decision making



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