

Long Term Impact of Home Visiting on Maternal Depression & Child Adaptation in Hawaiian Families

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David and Lucile Packard Foundation

National Institute of Mental Health

National Institute of Child Health and Human Development

Background:

Hawaii's Healthy Start Program

❖ Widespread national adoption of home visiting

➤ HSP GOALS

- Improve family functioning
- Promote child health and development
- Prevent child abuse and neglect

➤ HSP COMPONENTS

- Population-based screening and assessment to identify at-risk families
- Intensive, long term home visiting by paraprofessionals

❖ IOM call for a comprehensive RCT in 1994

Objectives

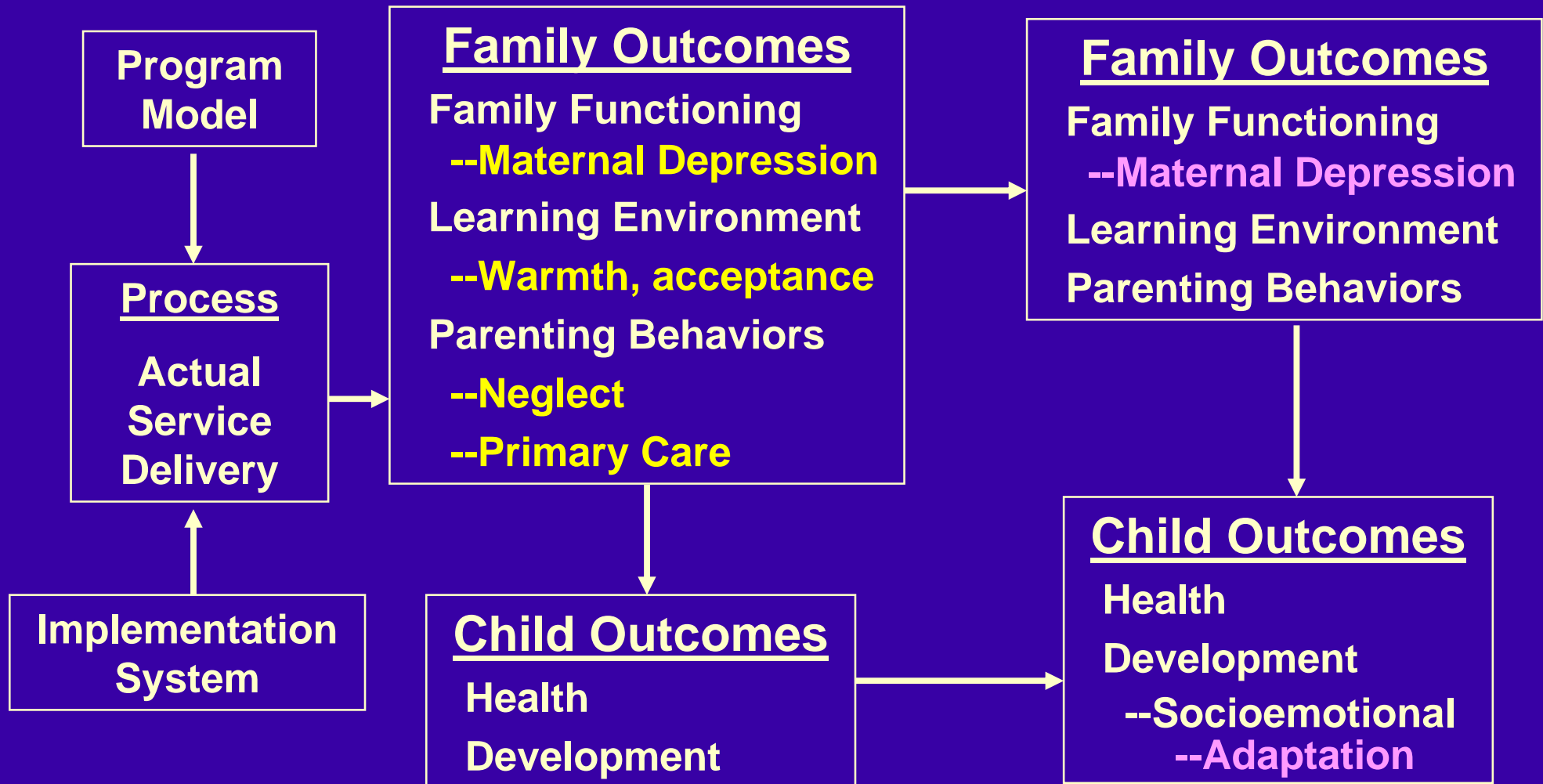
1. To assess program impact on maternal depression and child adaptation in first grade
2. To explore the link between early program impact and outcomes in first grade
3. To relate early impact to the process of home visiting and pediatric primary care
4. To determine if findings for Objectives 1-3 differ for Hawaiians as compared to the full sample.

Study Methods

- RCT independent of the program
- Six communities
- Data sources: parent interviews; child assessment; home and school observation; record review

	<u>Birth</u>	<u>1 Yr</u>	<u>2 Yrs</u>	<u>3 Yrs</u>	<u>Grade 1</u>
At-Risk					
HSP (n=373)	0	X	0	X	0
Control (n=270)	0	0	0	0	0
Not-At-Risk Families (n=218)					0

Conceptual Framework



Measurement

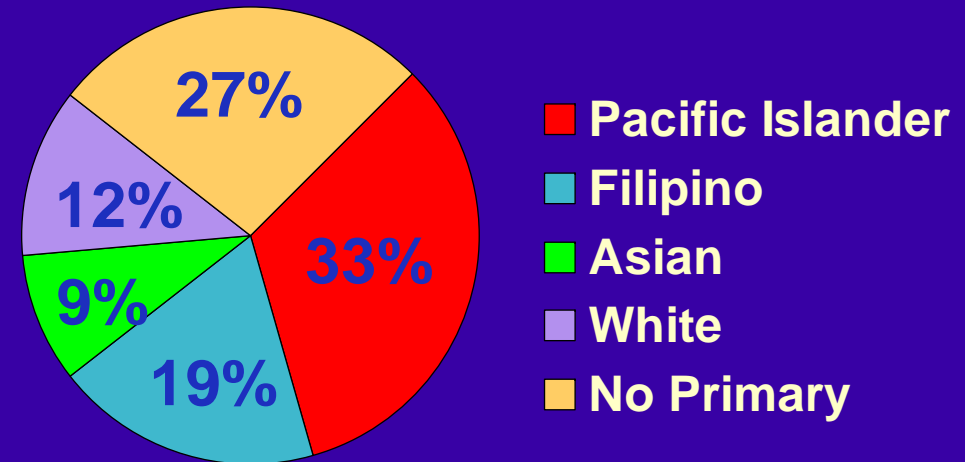
- **Maternal Depressive Symptoms: CES-D**
 - **At-Risk Families: at 1, 2, and 3 years and Grade 1**
 - **Not-at-Risk Families: Grade 1**
 - **Conventional Cut-points: <16, 16-19, 20-23, >23**
- **Child Adaptation in Grade 1**
 - **Vineland Adaptive Behavior Scale --- Score <85**
 - **Child and Adolescent Functioning Assessment Scale
--- Score >40**

Sample Baseline Attributes

AT-RISK VS. NOT-AT-RISK FAMILIES

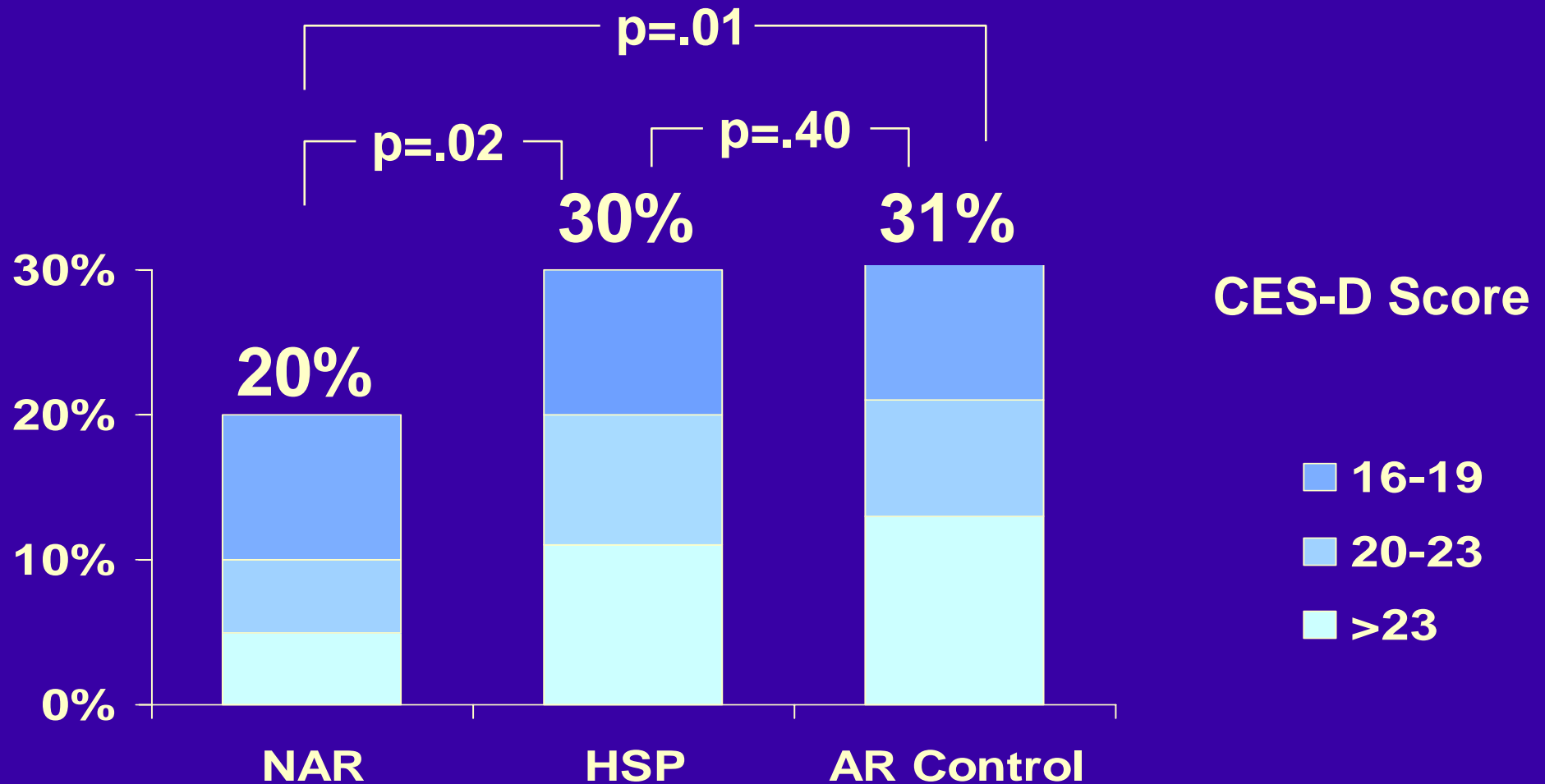
	<u>AR</u>	<u>NAR</u>	<u>p</u>
Maternal Age	23	30	<.001
Pacific Islander	33%	13%	<.001
Married	21%	99%	<.001

AT-RISK FAMILIES

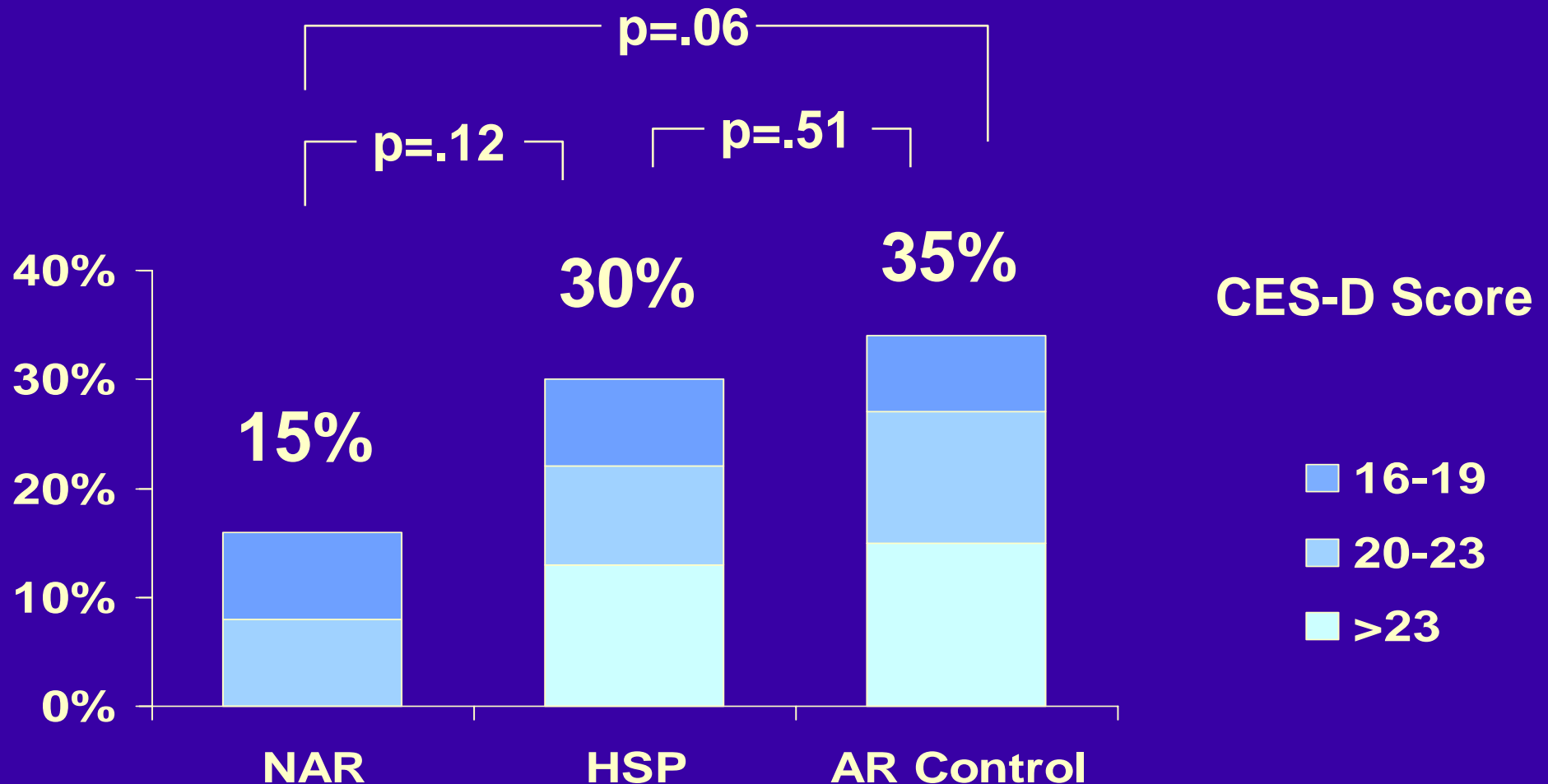


- 46% Poor maternal mental health
- 16% Maternal substance abuse
- 50% Domestic violence

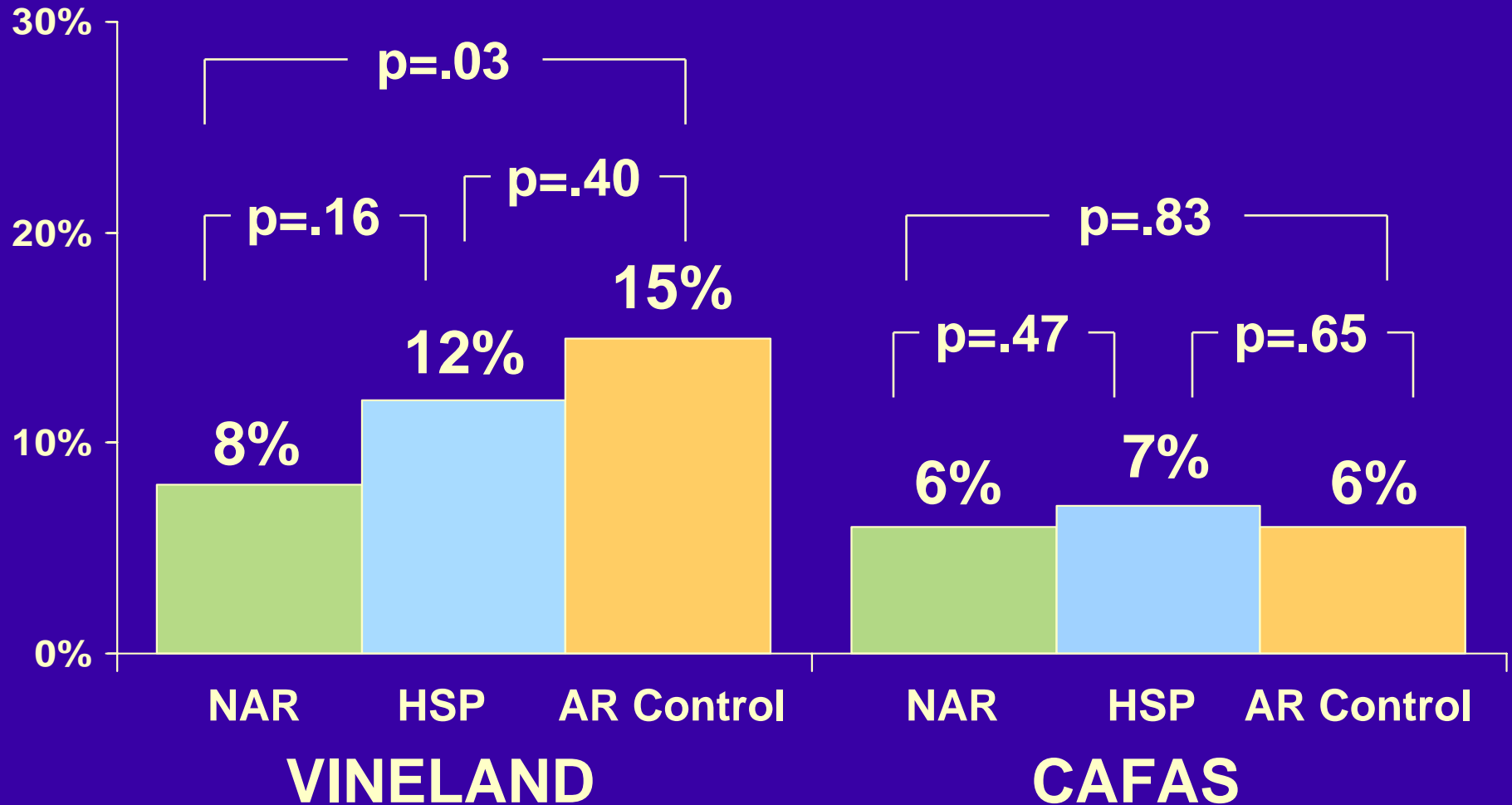
Maternal Depressive Symptoms – Full Sample When Child Was in Grade 1, by Study Group



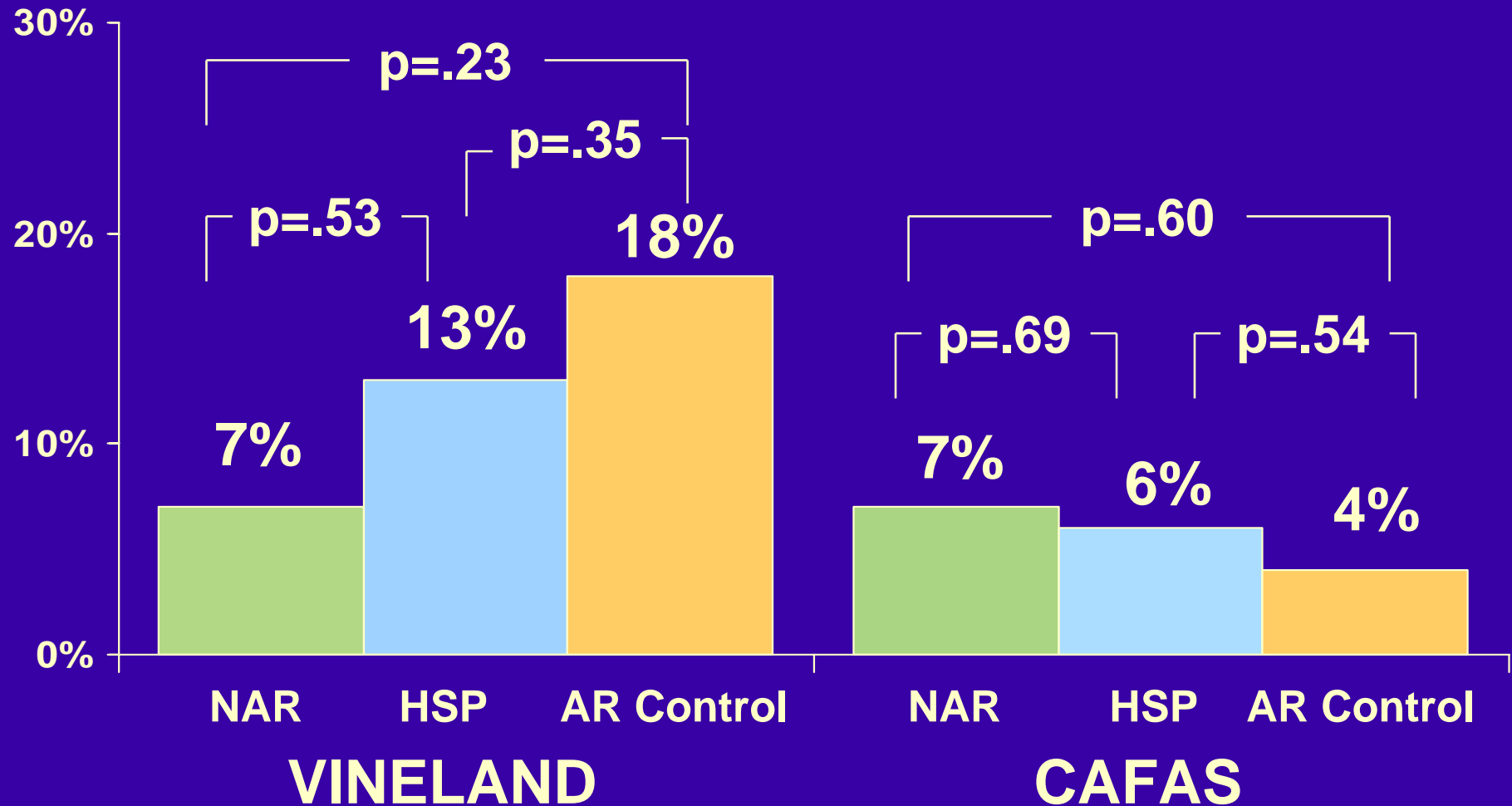
Maternal Depressive Symptoms – Hawaiian When Child Was in Grade 1, by Study Group



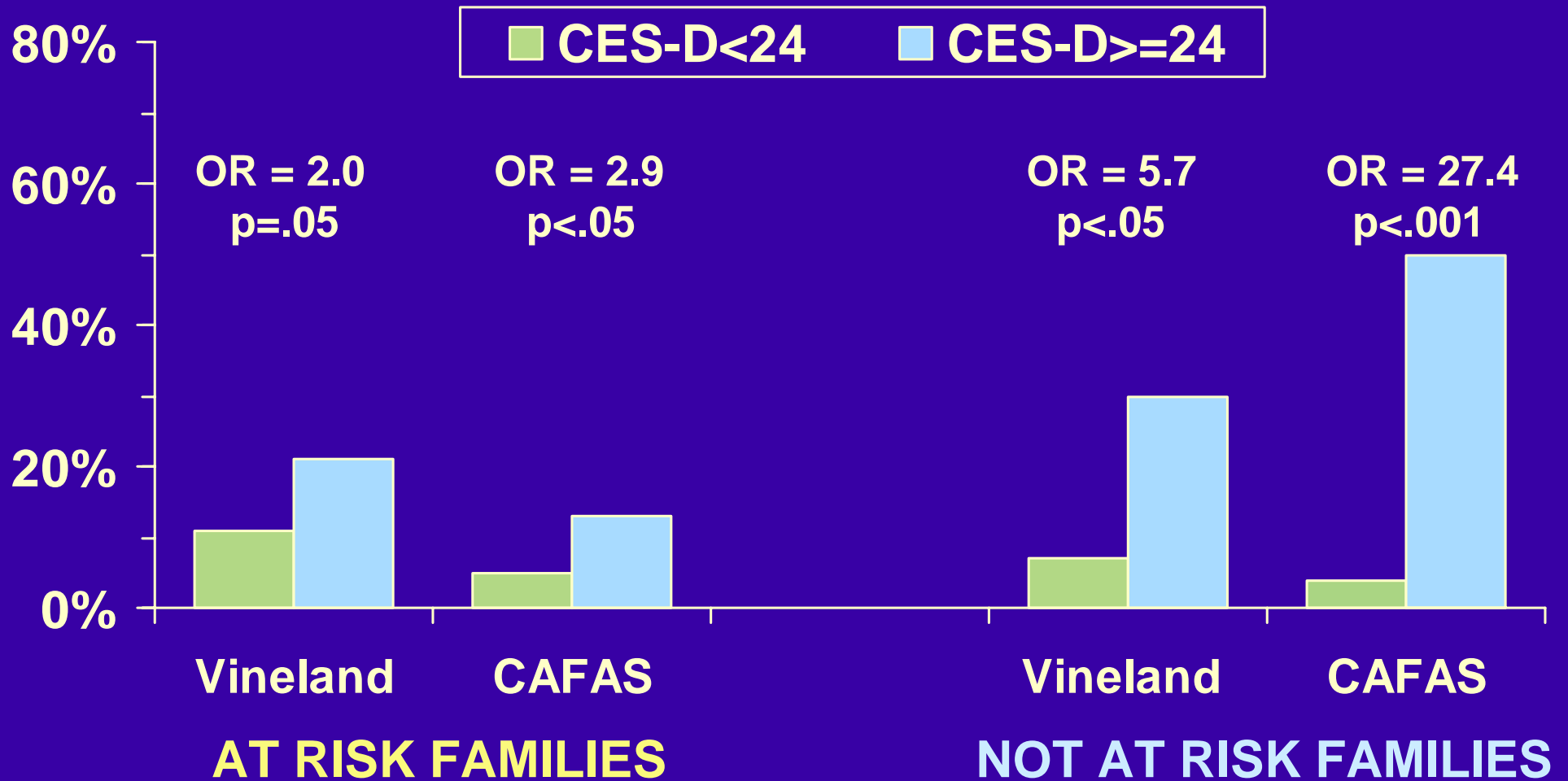
Child Adaptation – Full Sample Grade 1, by Study Group



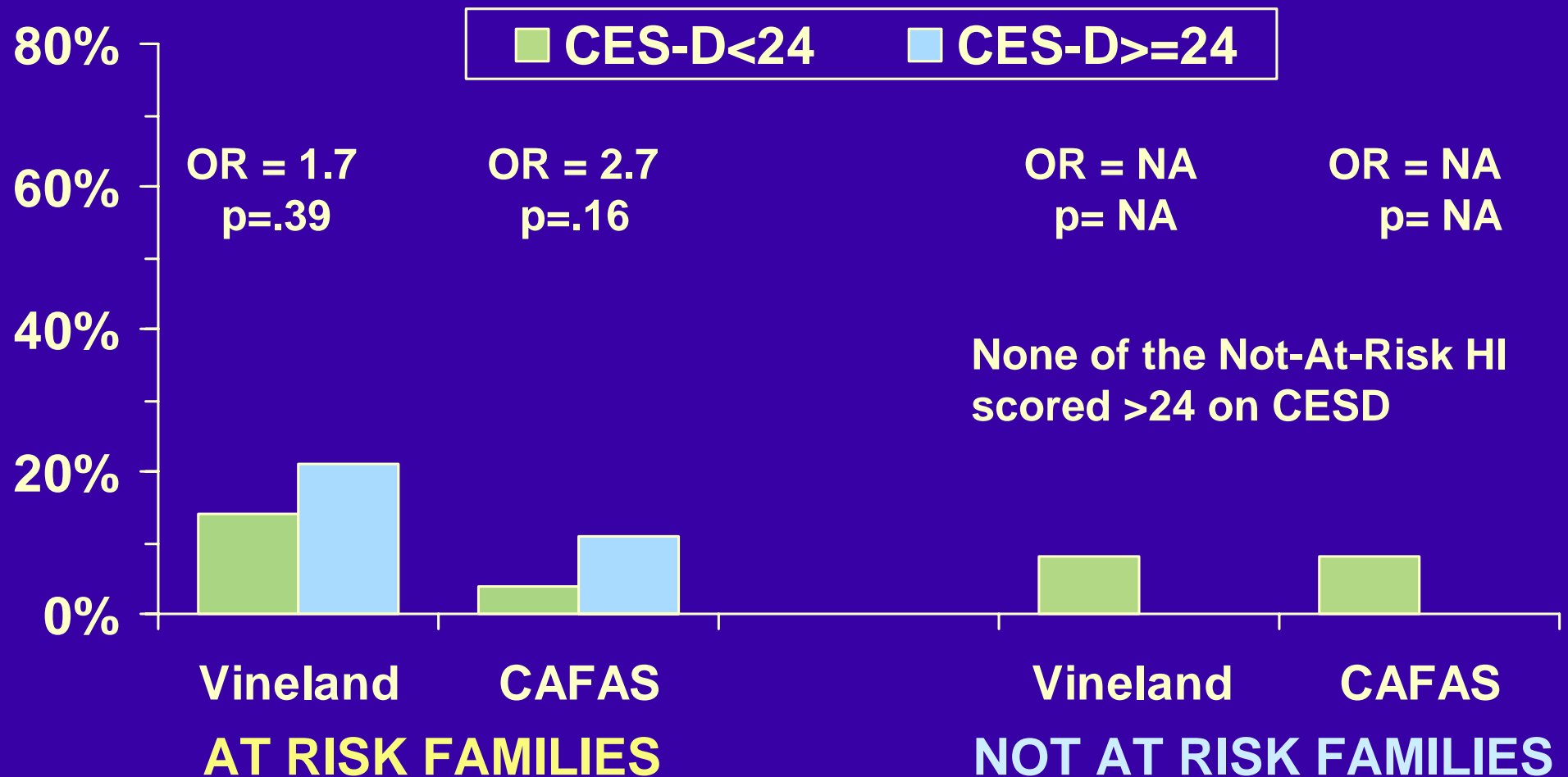
Child Adaptation – Hawaiian Grade 1, by Study Group



Maternal Depressive Symptoms Positively Associated with Child Adaptation Problems in Grade 1 (full sample)



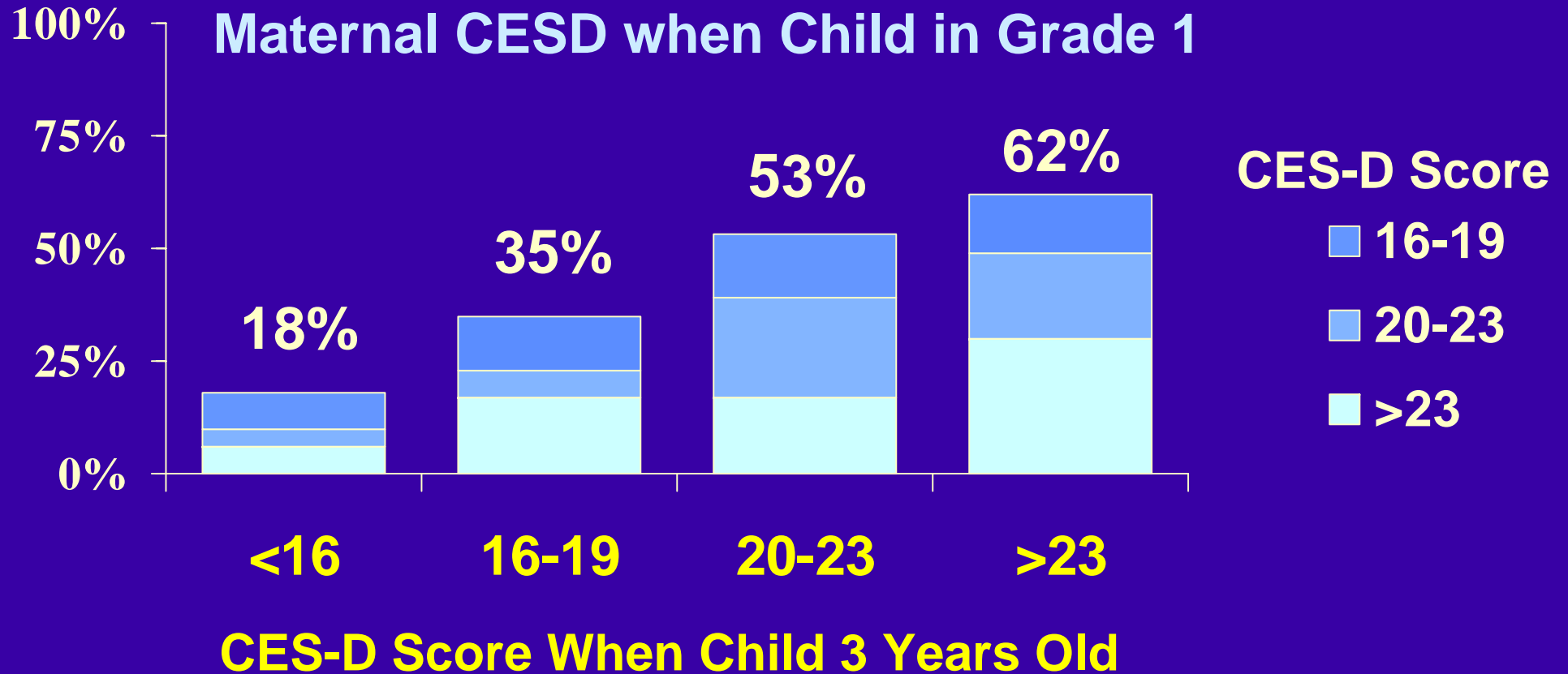
Maternal Depressive Symptoms NOT Positively Associated with Child Adaptation Problems in Grade 1 (Hawaiian)



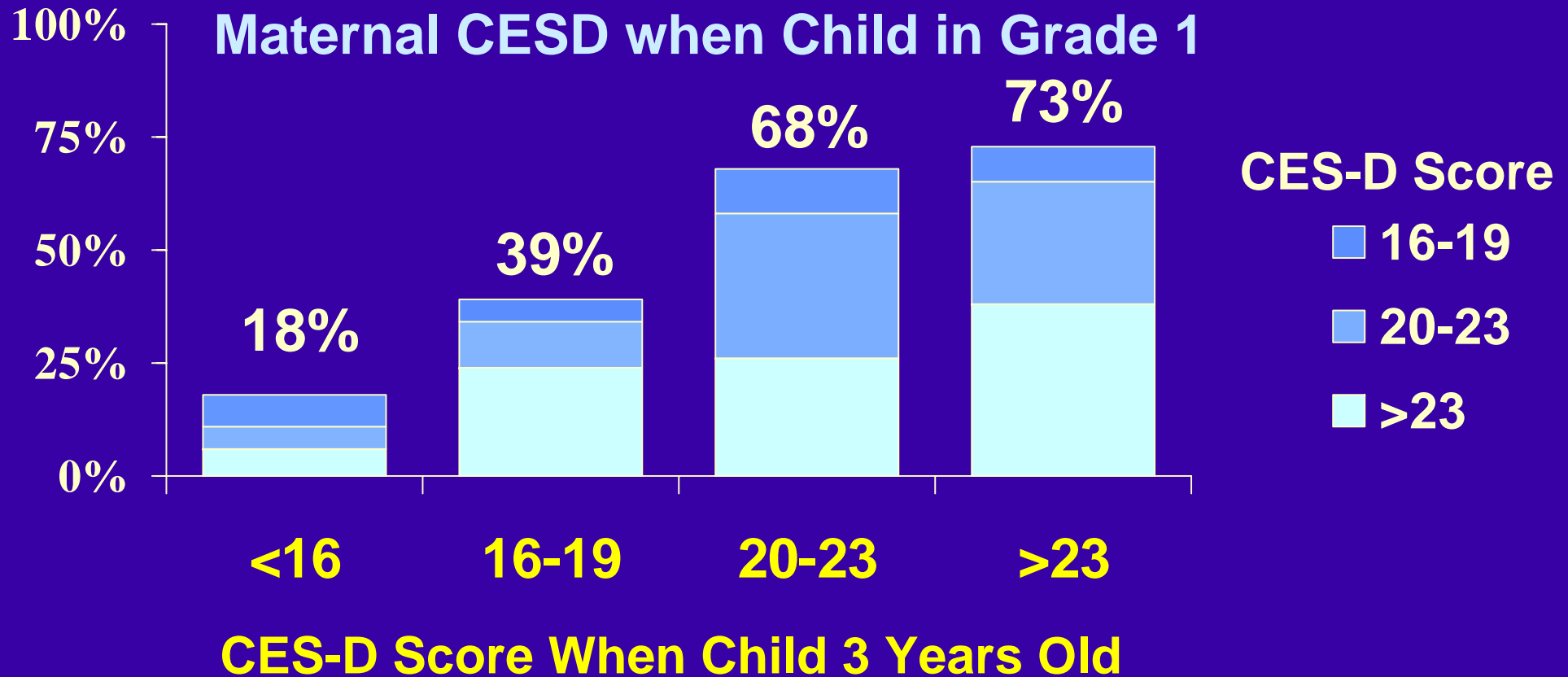
Impact of Depressive Symptoms on Vineland: Direct and Mediated through Parenting Behavior

	<u>Model 1</u>		<u>Model 2</u>	
	<u>B</u>	<u>p</u>	<u>B</u>	<u>p</u>
CES-D	-3.3	.05	-2.2	.20
Involvement with Child			0.9	.02
Neglect of Child			-3.4	.06

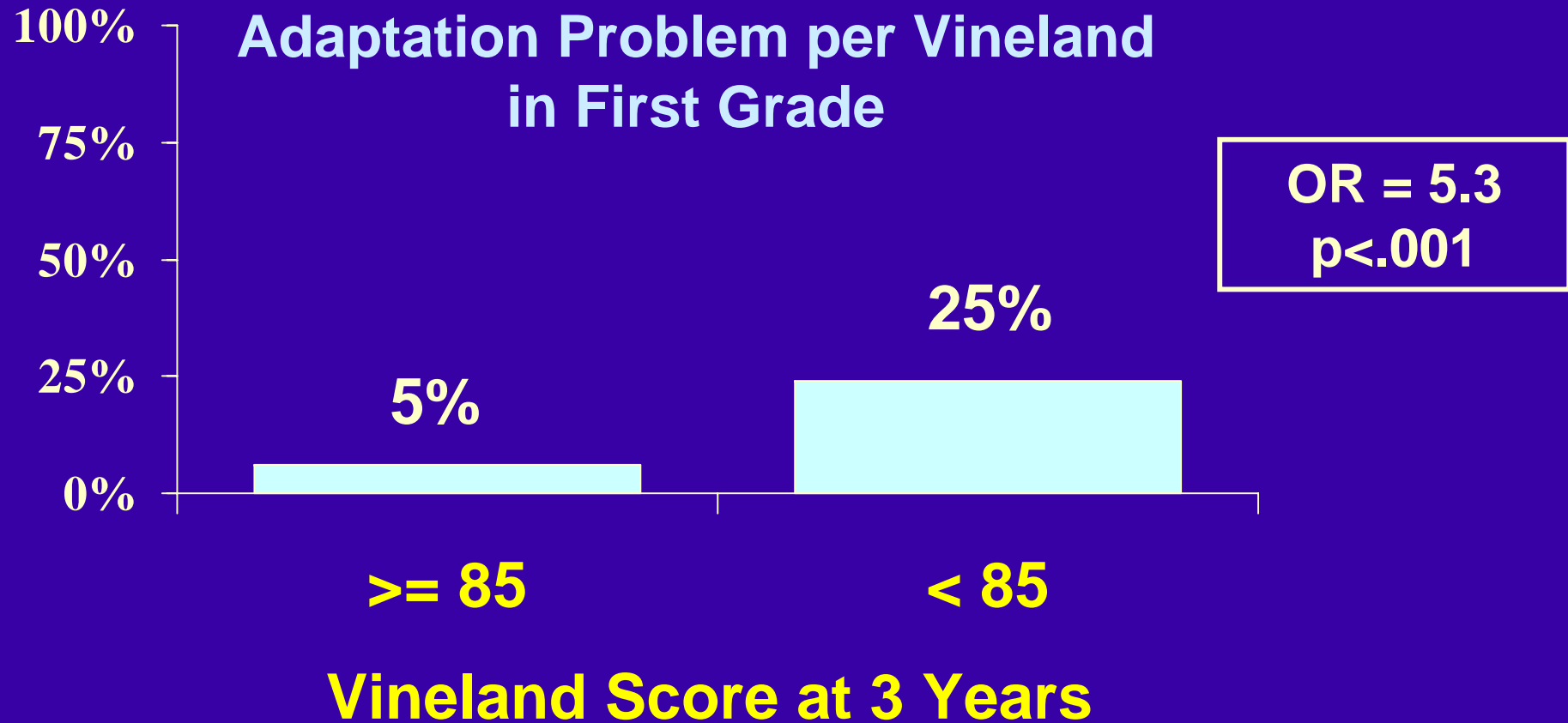
Tracking of Maternal Depressive Symptoms Over Time (Full Sample)



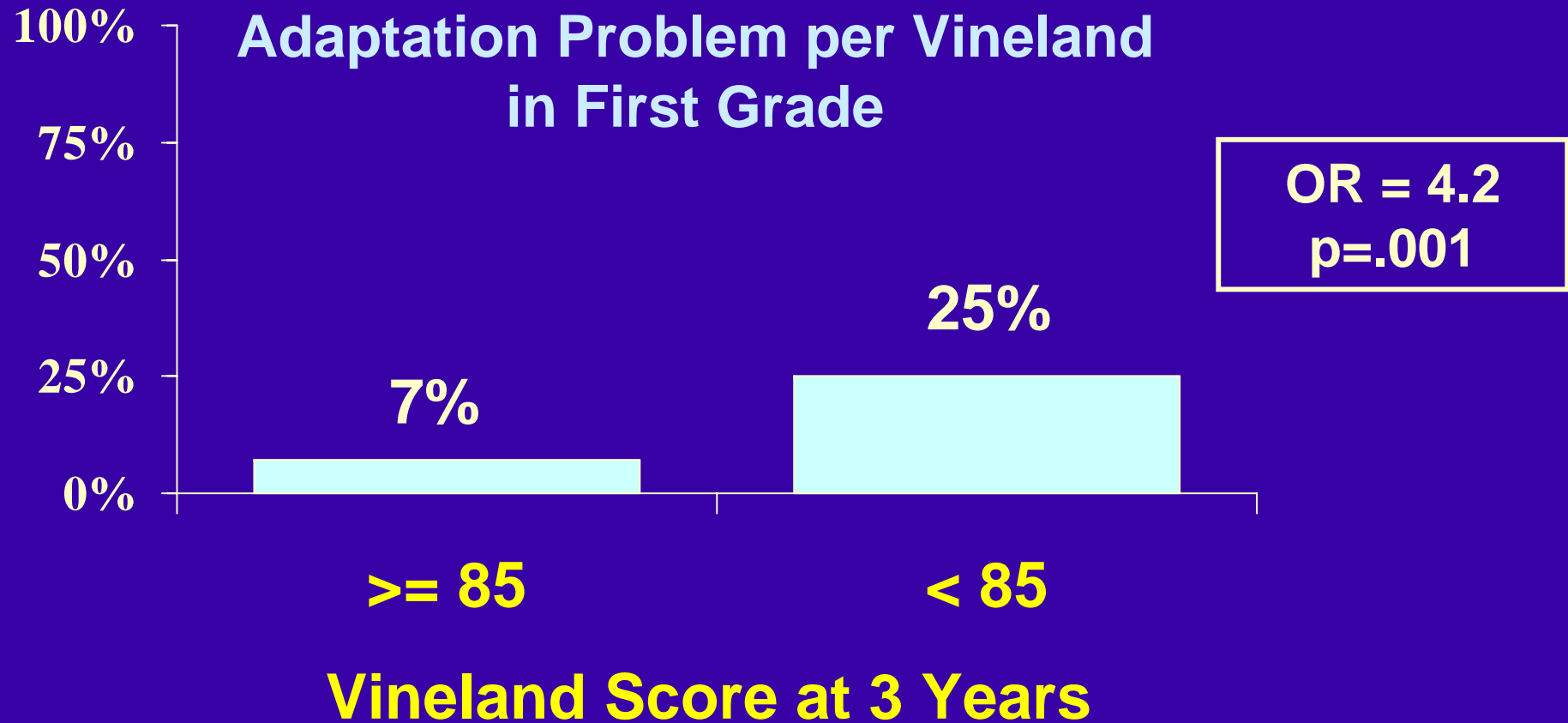
Tracking of Maternal Depressive Symptoms Over Time (Native Hawaiian)



Tracking of Child Adaptation Problems from Age 3 Years to First Grade (Full Sample)



Tracking of Child Adaptation Problems from Age 3 Years to First Grade (Hawaiian)



HSP Early Impact on Outcomes

CES-D_{≥24} at Y1 – Y3 Follow-Up

<u>AOR</u>	<u>95% CI</u>	<u>p</u>
0.97	0.70, 1.33	.84

Vineland <85 at Age 3 Years

<u>AOR</u>	<u>95% CI</u>	<u>p</u>
1.11	0.77, 1.59	.57

Provider Recognition of Maternal Depressive Symptoms

- Home Visitors
 - Recognition of poor mental health for 18% of engaged families with maternal CES-D \geq 24
- Pediatric Primary Care Providers
 - Recognition of poor mental health for 4% of families with same PCP and all AAP visits in child's first 3 years of life

Conclusions

- Maternal depressive symptoms
 - Are common and enduring for all families
 - Have a negative impact on child adaptation for some families
 - Act both directly and through parenting behavior for some families
 - May not be related to poor child adaptation in Native Hawaiians
- Provider recognition
 - Many opportunities
 - Poor

Limitations

- Child adaptation was measured by maternal report only
- Only at-risk families were followed from the child's birth
- Power was an issue for the NAR group

Implications

- There is potential to promote child outcomes by addressing maternal mental health
 - Improve home visitor and primary care provider recognition of maternal depressive symptoms
 - Develop strategies to better integrate home visiting and primary care provider services to address both maternal risk factors and child adaptation