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Optimal Pregnancy Outcomes for Women on Medicaid – The Optima "Partners in Pregnancy" Program

The Disease
Management Colloquium

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Overview of the Problem

- Preterm Birth and Low Birth Weight are the leading problems facing the obstetrical community, families and healthcare organizations
- Sentara Healthcare participated in the Center for Healthcare Strategies (CHCS) Best Clinical and Administrative Practices (BCAP) focused on Birth Outcomes, and decided to initiate a comprehensive, population-based OB case management program

Program Development

SENTARA'S

PARTNERS IN

PREGNANCY

DELIVERING THE BEST

Leveraged Learnings to Design and Justify (ROI)

New Population-Based OB Program.

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Team Structure

Core Team

- Case Managers
- Patient Advisory Reps
  - Customer service reps recruited for interpersonal skills
  - Developed special training program for core OB content
- IT & Clinical Reporting
  - Unique partnership with co-management

Flat Hierarchy

  - Cross-sectional management team
  - Staff management of small sub-projects

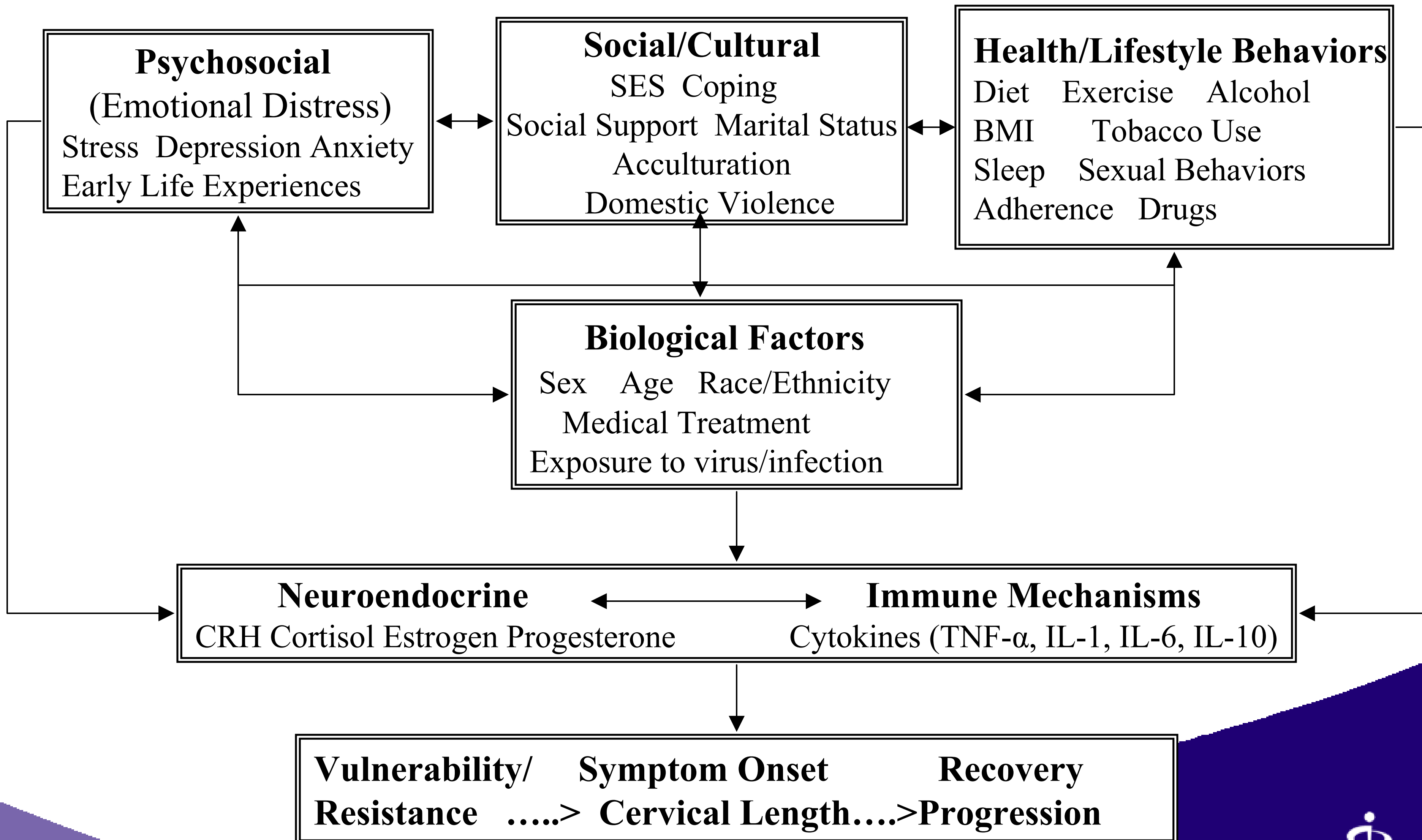
Evidence-based Model

- Is a comprehensive perinatal case management program designed to prolong pregnancy
- Key components include: coordination of care, linking to resources, providing education and a support network, encouraging self-care and advocacy for an often vulnerable population
- Program is a theory-based initiative that integrates disease prevention and health promotion within a psychoneuroimmunologic framework

Evidence-based Model

- Recognize relationship between behavioral and biologic phenomena and influence on health
- Emphasize health promotion behaviors that impact lifelong health

PnP Program Framework



Ruiz, R.J.,Fullerton, J., & Dudley, D.J. (2003). The interrelationship of maternal stress, endocrine factors and inflammation on gestational length. *Obstetrical and Gynecology Survey, 586, 415-428*

Lutgendorf, S.K. & Costanzo, E.S. (2003). Psychoneuroimmunology and health psychology: an integrative model. *Brain, Behavior, and Immunity, 17*,225-232.

Program Development: Guiding Principles

- Team Approach
- High Tech
- High Touch
- Rigorous Commitment
- Narrow, Intense Focus

Best Clinical and Administrative Practice Typology

Typology Element	OB
Identification	OB Authorization DMAS Report Physician referral Community ferrals Hospital Admissions Member Referral Self Referral
Stratification	Age Co-morbidity Prior Preg. Hx and outcomes Emotional distress
Outreach	Telemanagement Mailings Office Visits Hospital rounds Community Partner Referral
Intervention	Telemanagement Case Mgmt. Group Classes Education Home Visits

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Identification

How to Identify Eligible Participants – Who is Pregnant?

- Cornerstone of Program
- Methods
- Strategies:
  - Visits to high volume OBs and identify key office contact
  - Revised OB Authorization form
  - Articles in newspaper, member and provider newsletters
  - Mass mailings
  - Implementation of Database
  - Data mining within integrate health system

Stratification

How to Assign Risk to a Population?

- Serial risk assessments at each contact to identify developing problems and/or evaluate intervention
- Identify modifiable risk factors
- Data mining within integrated health care system
- All pregnant women are invited to participate

OB Active Case - Member Information

File Tools

Primary Address

SUFFOLK, VA 23434-

Home Phone:

Work Phone:

ID

DMID: 107

Member ID:

Medicaid ID:

Episode #: 1

Case Info

Next Review Date: 7/21/2002

Next Review By: Phyllis Cuffee

Case Manager:

Patient Advisor Rep: Phyllis Cuffee

Contacts | Demographics and Health Plan | Prenatal Info | Case Management | Birth Outcomes | Risk Assessment | Interventions

Current Risk Factors

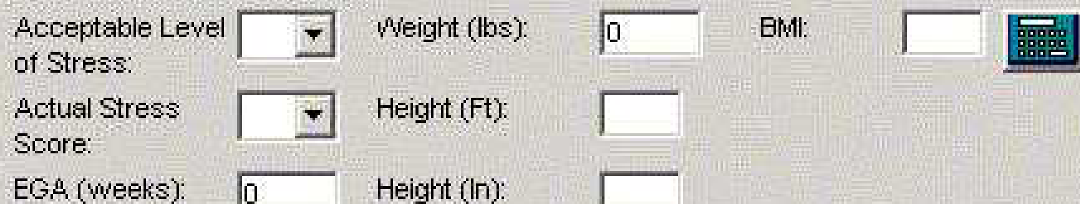
- Abruption
- Age < 18
- Age > 35
- Alcohol
- Asthma
- Cancer
- Diabetic
- Drug Use
- Fetal Anamoly
- Gest Diabetes
- Heart Disease
- Hemaologic Disease
- HIV
- Home Care
- Homeless
- Hospitalized
- HTN
- Hyperemesis
- Inadequate Wt Gain
- Incomp Cervix
- Multiple Gestations
- Nutritional Problems
- Other Lung Disease
- PIH
- Preterm Labor
- Previa
- Psych/Depression
- PT/OT/ST
- Renal Disease
- Smoker
- STD
- Surgery
- Transplant
- Violence/Abuse
- Other

Other Description:

Historic Risk Factors

- Abruption
- C-Section
- Fetal Demise/Stillbirth
- Hyperthyroidism
- Hypothyroidism
- Lupus
- Marfans Syndrome
- Myasthenia Gravis
- Preterm Labor
- Psych/Depression
- STD/Exposure
- Other Historic Risk

Other Historic Risk Description:



Other Current Information

Acceptable Level of Stress:

Weight (lbs): 0

BMI:

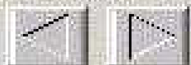
Actual Stress Score:

Height (Ft):

EGA (weeks): 0

Height (In):

1 of 1 Risk Assessments



Risk Stratification

Review Date: 10/11/2002

Current: Unknown

Review By:

Initial: Unknown

Comments

Call >= 30 minutes

Outreach

How Do You Find Target Population?

- Multiple methods
  - Instituted a 800-line for pregnant members
  - Telephone
  - Mail
  - Schools
  - Provider offices
- Contracted with Community Partner to provide home visitation program
- Recognize culture is an integral part of lifestyle

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Intervention

What Works to Improve Outcomes?

- Primary Prevention is focus
- Risk reduction is bases of prevention program
- Match intervention with risk factors
- Interventions aimed at key health behaviors in pregnancy
  - Stress Management
  - Nutrition
  - Access to health care
  - Physical activity
  - Lifestyle risk behavior
  - Medical risks

Outcomes

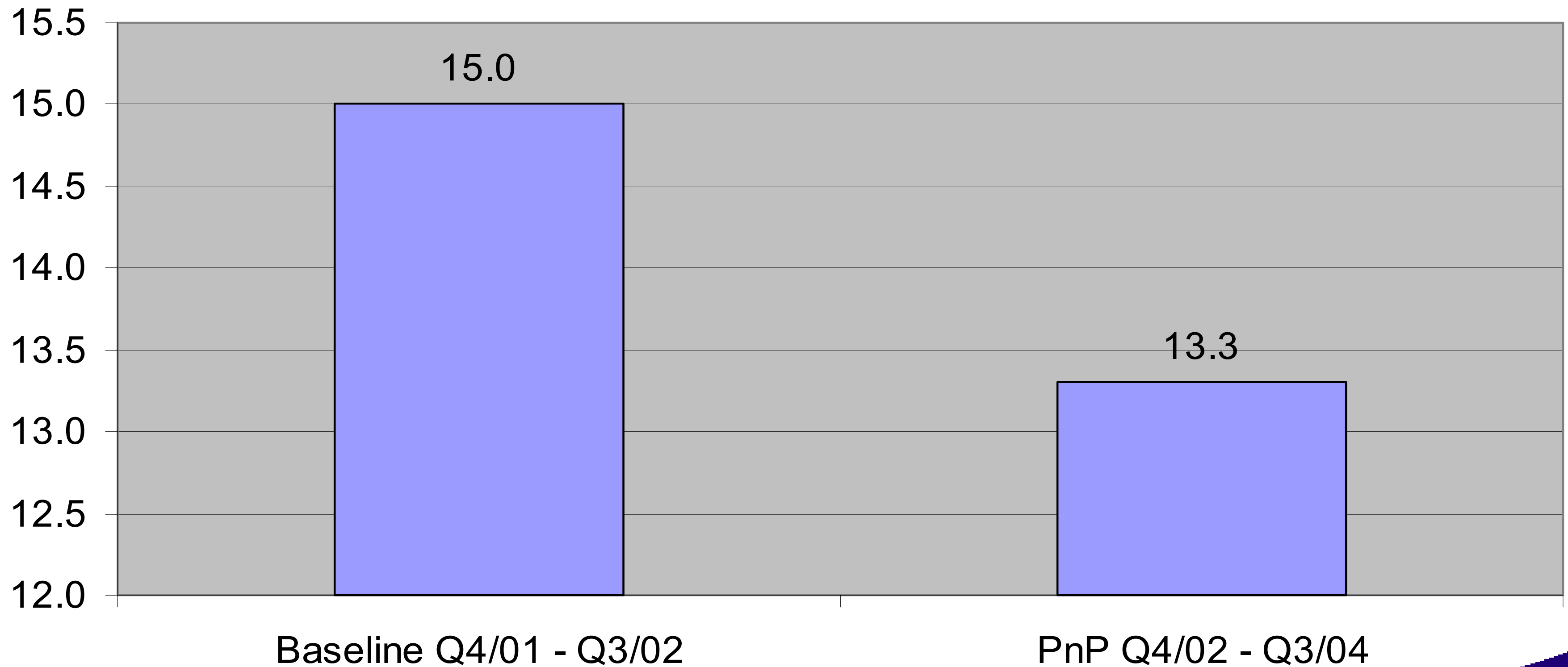
How Can Changes Be Measured?

• Goal of prolonging pregnancy recognizes impact of life course events on women’s reproductive health and birth outcomes.

What About Birth Weights?

- Birth Weight has been Traditional Proxy Measure for Gestational Age/Clinical Status.
- Data Collection Subject to Errors.
- "Healthy" LBW Phenomenon.

NICU Days



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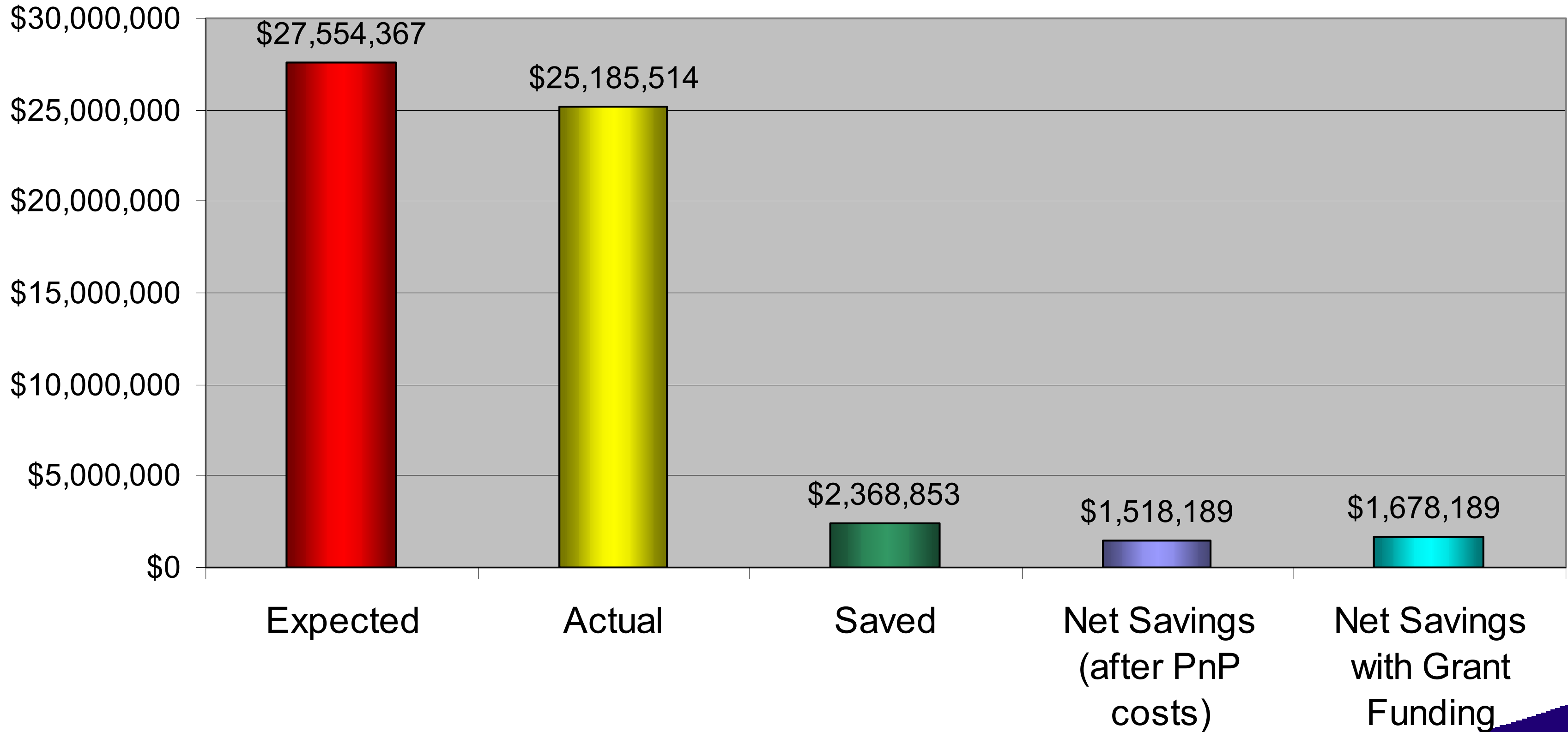
NICU Costs



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Community-Based Partner

- Bridge Between Healthcare System and Community.
- Link to Existing Programs:
  - Resource Mothers.
  - CHIP of Virginia.
  - Departments of Health.
- Primary Functions:
  - Outreach.
  - Identify Risk Factors/Needs.
  - Support Compliance with Intervention.

As a result of our initial success this program has been awarded 4 grants totaling $170,000.

Outreach – Partner Organization

Sentara Healthcare/Optima Health Plan

- Integrated healthcare delivery system
- Largest Medicaid Managed care provider in Virginia

CHIP of Virginia

- Network of local public/private partnerships
- Home-based health supervision and family support services by registered nurses and outreach workers.

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Outreach

We thought this would work because:

- Early intervention strategy that is widespread in other industrial nations.
- Often associated with improved birth outcomes.
- Awarded grants totaling $170,000

Outreach – Program Model

- Home-based case management by teams of registered nurses and community outreach workers
- Case management efforts focus on prenatal health and reduction of high risk behaviors
- Data tracking for both process and outcomes
  - Attendance at prenatal appointments
  - Stress reduction and use of stress management
  - Cessation or reduction of alcohol and other drug use
  - Smoking cessation or reduction
  - NICU days and dollars

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Outreach

- Women referred prior to 22th week of pregnancy
- Prenatal risk assessment identified major risk factors
- "Risk" includes medical, psychosocial, and environmental factors
- Home visits at least once every three weeks
- Regular contact between field-based staff (nurses and outreach workers) and health plan case management staff

High Risk OB Case Tracker

File Tools

OB Active Case Information

Primary Address

Home Phone:
Work Phone:

ID
DMID:
Member ID: *01
Medicaid ID:
Episode #: 1

Case Info
Next Review Date:
Next Review By:
Case Manager:
Patient Advisor Rep:

Contacts | Demographics and Health Plan | Prenatal Info | Case Management | Birth Outcomes | Risk Assessment | Interventions

Community Partner Information

Home Environment/ Domestic Violence:

Suppport System/ Family Involvement:

Housing Status:

Early Pregnancy Class Date: 3 /17/03

Class Location/Agency:

Appointments scheduled since last assessment:

Appointments attended since last assessment:

Pre-Pregnancy Condition NOT Under Control

Description:

Back to Main Risk Screen

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Enrollment profiles of Population served

Average maternal age	22.0 years
Under age 19	44%
Race	87% African American
Chronic Medical condition	37%
Previous pre-term delivery	26% (of children)
Previous low birth weight baby	25% (of children)
Average number of children	2.4
Married	35%
Completed high school/GED	37%
Average grade completed	10.5
Have one or both parents employed	15%

Enrollment profiles of Population served

In the last year

• Moved at least once	47%
• Needed transportation, but could not get it	41%
• Needed food, but could not afford it	27%

Outcomes - Community Partner

- 27% reported decreasing or stopping smoking during pregnancy
- 88.5% attended scheduled prenatal appointments
- 81% reported using stress management techniques

Outcomes – Community Partner

- 38% reported smoking during postpartum
  - Represents an increase in women who did not smoke during pregnancy but began postpartum

Outcomes - Community Partner

- Greatest risk factors often unrelated to medical history or pregnancy
  - Substance abuse
  - Violence
  - Mental illness
- Difficult population to engage and retain
- Importance of maintaining healthy behaviors
- Creative outreach, frequent contacts, incentives are necessary for success
- Infants born preterm, but often healthier than counterparts

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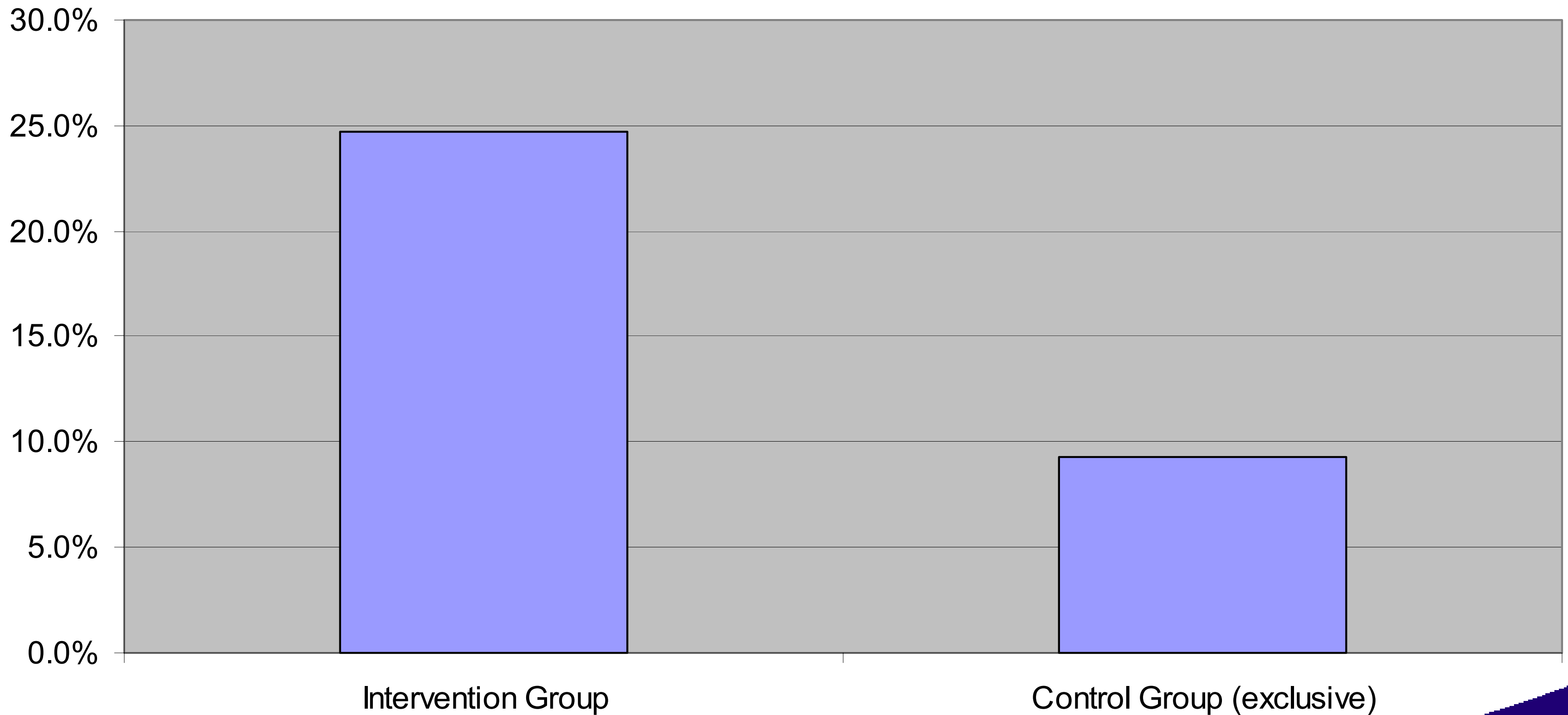
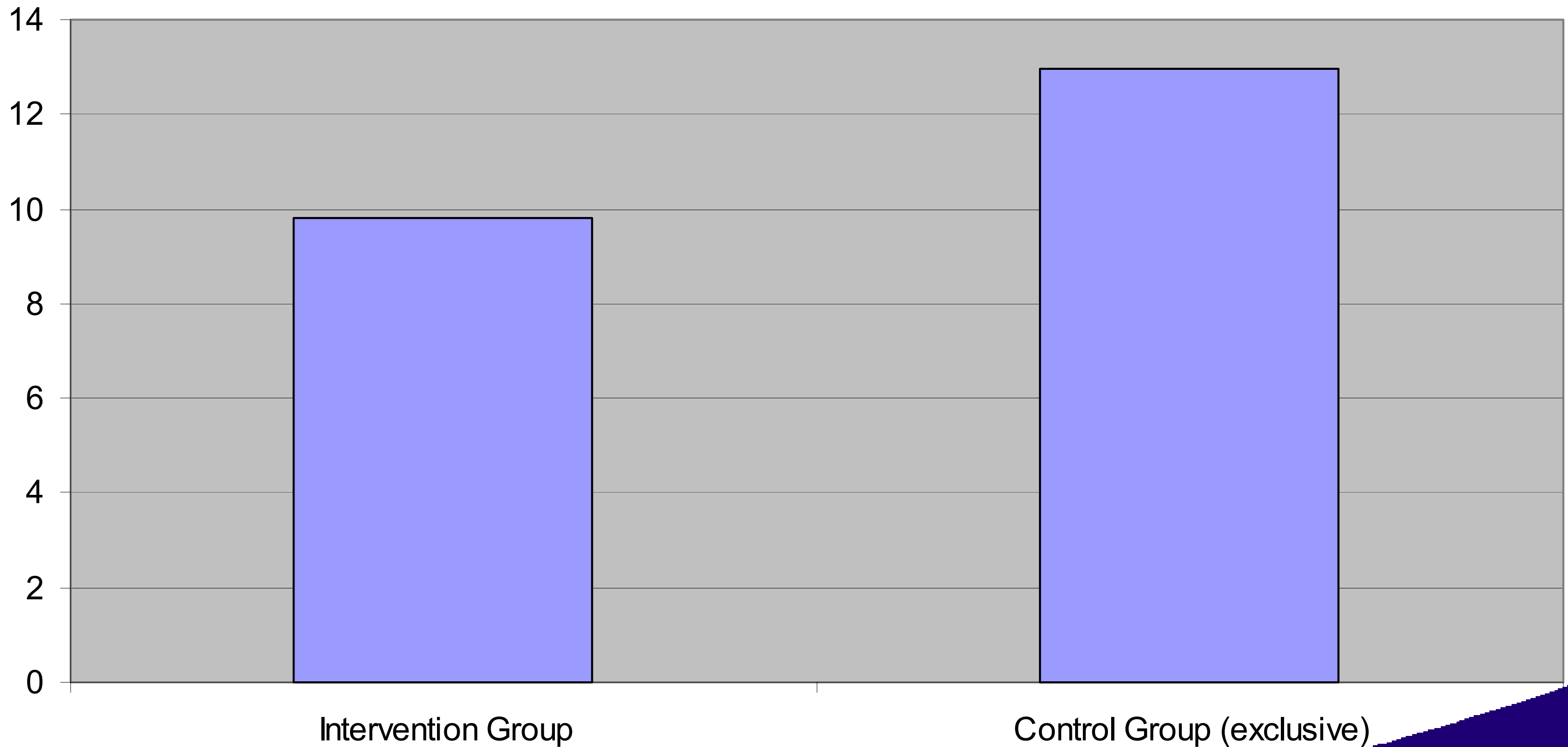
Community Partner Admit Rate



Community Partner LOS



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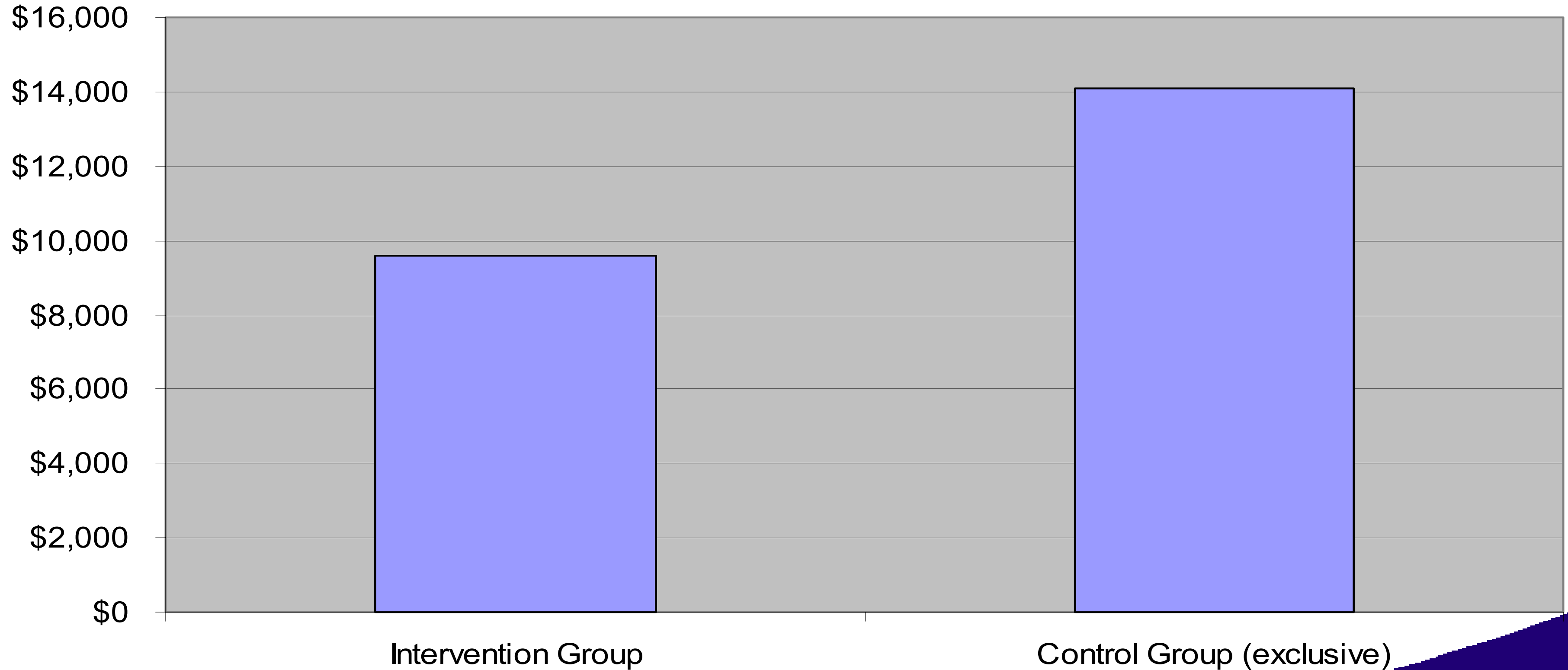
Community Partner Costs per Case



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Summary

- Highly innovative program with multiple components.
- High Tech + High Touch.
- Continuous improvement process based on tightly defined goals and a high degree of collaboration.
- Superior Clinical, Financial and Process Outcomes.
- National Recognition.

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