Replicating the Michigan MATCH

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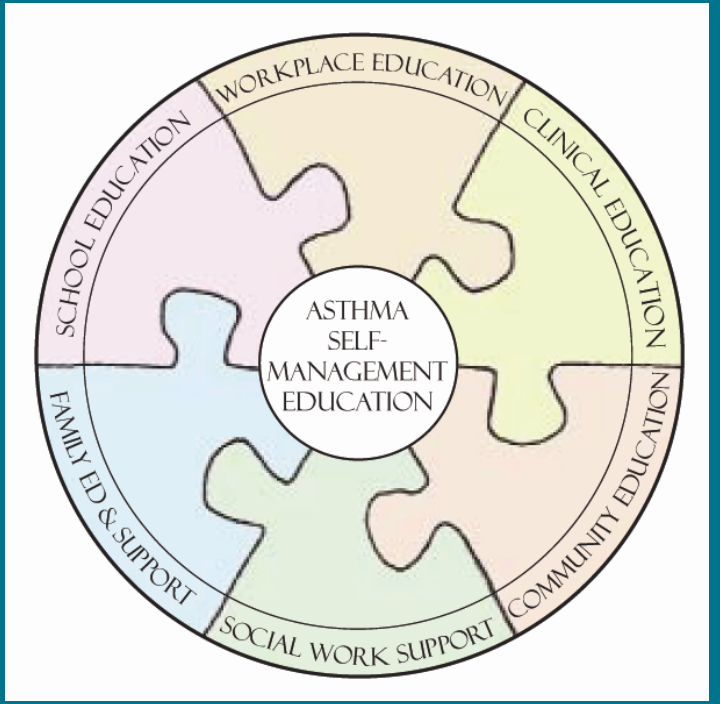
Disclosures

- Karen Meyerson
  - Speakers' Bureaus: GlaxoSmithKline, ThermoFisher Scientific, Genentech/Novartis
  - Advisory Board: Ideomed, Inc.
  - Educational Grant: AstraZeneca
- Tisa Vorce
  - Nothing to disclose

Overview

- Successful Model
- Replication of Successful Model
- Outcomes
- Lessons Learned
- Value Proposition



Asthma: A Preventable Disease… *Out of Control*

- High business costs associated with asthma
  - Direct & indirect costs, lost productivity
- Barriers to quality asthma care
  - Insufficient and inconsistent insurance benefits
  - High costs of medications
  - Lack of educational services and case management
  - Challenges in reducing exposure to environmental triggers

Controlling Asthma and Its Costs

- Best Practices for Asthma Management (NAEPP Guidelines 2007):
  - Assessment and monitoring
  - Comprehensive pharmacologic therapy
  - Education for a partnership in asthma care
  - Control of environmental triggers and co-morbid conditions

Implementing Best Practices

- Asthma Education
  - Based on cost-effectiveness of asthma education programs, the NAEPP Expert Panel recommended "that asthma self-management education delivered by trained health professionals be considered for policies and reimbursements as an integral part of effective asthma care."
  - "Abundant" scientific evidence that asthma self-management programs reduce urgent care visits and hospitalizations and improve overall health status.

A Model that Works: Asthma Network of West Michigan

- Established in 1994 as the grass-roots asthma coalition serving West Michigan
- Began providing home-based asthma case management services in 1996
- Obtained 501(c)(3) status in 1997
- Contracted with area's largest payer in 1999
- The first asthma coalition in Michigan; one of the first in the nation
- Designated "National Model Asthma Program" by U.S. EPA

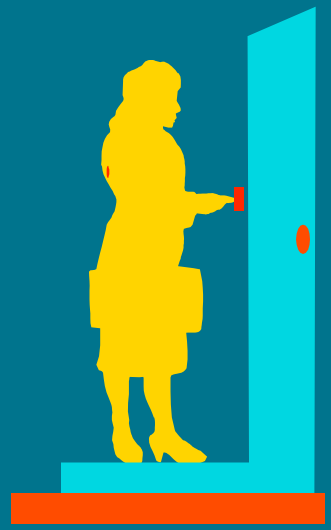
Value Proposition

- Population of Focus
- Mission
- Goals
- Tasks/Activities (what the program does to fulfill its mission/achieve impacts)
- Objectives/Outputs (direct products of program activities)
- Outcomes (benefits or changes for individuals or populations during or after participating in program activities)
- Costs

Population of Focus

- Children and adults with poorly controlled asthma in three West Michigan counties, primarily from low-income families.
- Long-term impacts
  - Fewer adverse asthma events
  - Measures: Decreased morbidity (25% reduction in ER visits and 40% reduction in hospital admissions) and decreased mortality in this population

Activities to Achieve Impacts



- Home-Based Case Management:
  - Home visits
    - AE-Cs, LMSWs and CHWs
  - School/daycare visits
  - Physician care conferences to elicit a written asthma action plan
  - Licensed masters social worker (LMSW) to assist with psychosocial barriers
- Community outreach:
  - Speakers' Bureau

Asthma Network of West Michigan – Staff (Inputs)

- Asthma Educators/Case Managers
  - 2.8 FTEs
  - RN or RRT with interest/experience in asthma management
  - Must be a certified asthma educator (AE-C) or become certified within a year of employment (Asthma Network of West Michigan covers the cost)

Asthma Network of West Michigan – Staff (Inputs)

- Asthma Network of West Michigan Manager (1.0 FTE)
- Medical Social Worker (1.0 FTE)
  - MSW prepared with experience in medical social work and extensive knowledge of community resources
  - Responds to psychosocial needs of patients
- Clerical (1.0 FTE)
  - Office assistant/biller with billing, database experience
  - Assists with scheduling appointments, correspondence

Referral Sources

- Inpatient population
- PCP/clinic
- School nurse
- Public Health Nurse
- Self-referral
- Managed Care Organizations

ANWM and Managed Care Organizations

- First asthma coalition in the nation to contract with managed care organizations (MCOs)
- Some MCOs authorize 18 visits, others authorize fewer and AE-C must call and justify the need for more visits
- Target members with uncontrolled asthma
- Signed contracts with 5 MCOs – negotiating with a 6th
- Reimbursement ($160,000) covers ~1/3 of our operating budget ($500,000)

Goals of Case Management

- Target behavior modification to promote prevention rather than crisis care
- Appropriate utilization of the health-care system
- Access to medications and primary care physician (obtain "medical home" if necessary)
- Address barriers - encourage problem-solving strategies
- Improved asthma knowledge/Improved quality of life
- Resolving psychosocial issues allows AE to focus on asthma management issues
- Enhanced communication with school and medical personnel
- Ensure asthma management in accordance with NAEPP guidelines

Objectives/Outputs

- Case management goal of 75 families/1.0 FTE asthma educator/case manager ~ 210 families
- 185 reimbursable slots
- 25 non-reimbursable slots (waiting list) – supported by grant $
- Serve over 400 families per year
- Accomplish ~ 2,000 home visits per year

Activities: Care Conference

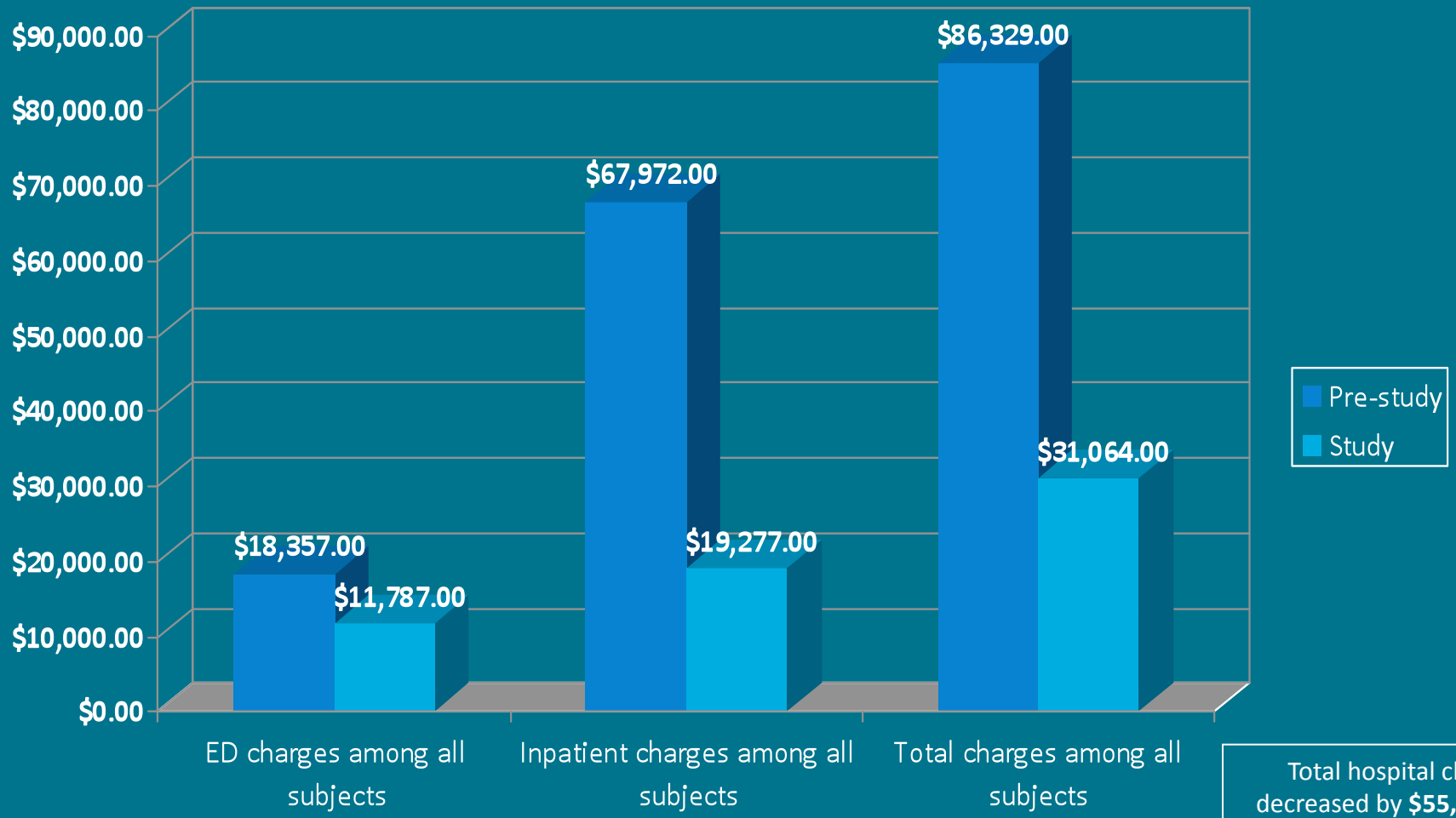
- Conducted with PCP (and possibly specialist as well) with or without family present
- Elicit a written asthma action plan
- Discuss compliance issues - psychosocial barriers to asthma management
- Discuss access to care issues - PCP visits, devices, medications, etc.
- Reimbursable visit

Activities: School/Daycare In-service

- Scheduled with key school personnel:
  - principal, school nurse, classroom
  - teacher, phys. ed. teacher, and school secretary
- May provide in-service for entire staff
- Discuss (in private) key issues concerning child's asthma and psychosocial barriers/ learning problems identified by school
- Provide with copy of AAP - ensure school staff understands
- Reimbursable visit

ANWM Outcomes:

Reduced Hospital Charges



Total hospital charges decreased by **$55,265** from pre-study year to study year

ANWM Outcomes

- Fewer emergency department visits
- Fewer hospitalizations
- Lower overall costs for asthma

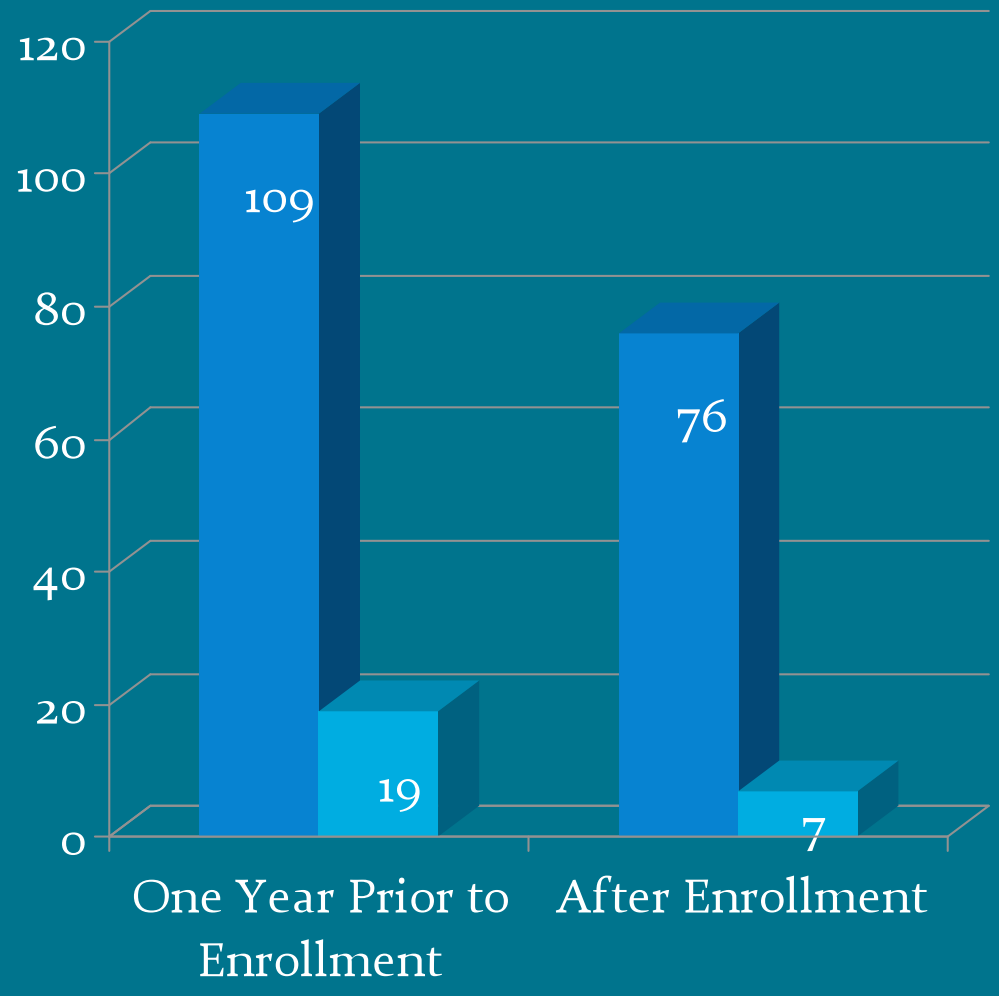
Clinical Outcomes	Cohort Group N=45			Control Group N=39			Cohort vs. Control
	Pre	Study	P-value	Yr 1	Yr2	P-value	P-value
ED Visits	80	61	0.047	28	43	0.0211	0.0040
Hospitalizations	41	13	<0.0001	23	28	0.1457	<0.0001
Days Hospitalized	114	25	<0.0001	55	67	0.0779	<0.0001

Kirk GM, et al. Abstract presented to the American Thoracic Society International Conference in San Francisco - May 2001

ANWM Outcomes

- An intensive case management program can produce significant positive outcomes in a low-income population of children with moderate to severe asthma
- The same program can be cost-effective
- Great numbers of community members can be educated through an effective community outreach program
- This program can be replicated in other communities
- This program can enhance the services of a patient-centered medical home pilot targeting children with uncontrolled asthma who are covered by Medicaid insurance (Children's Healthcare Access Program – CHAP)

ANWM & CHAP Outcomes



73 children served between 2007 and 2009 through home-based case management

- 63% reduction in admissions
- 30% reduction in ED visits

Current Sources of Revenue

- Grants – over $2,000,000 in past 15 years
- Managed Care Contracts (fee-for-service) – covers 1/3 of annual operating budget
  - Priority Health
  - CareSource
  - Blue Care Network
  - Molina Healthcare of Michigan
  - Health Plan of Michigan
- Annual operating budget: ~$500,000

Future Projects

- Establish more service agreements with area providers
- Achieve long-term financial sustainability
- Support asthma educator certification
- Expand comprehensive case management services to other counties
- Replicate our model around the state – respond to the needs of our payers
- Replicate our model nationally

What is the Evidence?

Asthma Regional Council of New England (ARCE)

Still emerging….

- Investing in best practices - A Business Case
- Asthma: A Business Case for Employers and Health Care Insurers
- Insurance Coverage for Asthma- A Value and Quality Checklist for Purchasers of Health Care

What is the Evidence?

Robust evidence shows widespread improvements in asthma patients' health when primary and specialist care is supplemented by in-depth asthma education, home assessment and mitigation of home-based triggers provided by a team of providers.

The Evidence: Published Studies

Bolton et al	Clark et al	Greineder et al	Trautner et al	Kattan et al
• RCT • 3 one hour group sessions to high risk adults by RN • Cost $85/patient • 59% fewer ED visits • Saved $22.50 in health care costs for every $1 spent	• RCT • 6 one hours individual session with high risk kids • $1558/patient • 58% fewer hospitalizations, 59% fewer ED visits • Saved ~$11.22 in healthcare costs for every $1 spent on program	• RCT • Comprehensive management services for high risk children, education delivered by Case Manager • $190/patient • 57% fewer ED visits; 75% fewer hospitalizations • Saved ~$9 for every $1 spent on case manager	• Pre-post intervention • Delivered by specialized nurse educator to high risk adults with asthma while in hospital • $233/patient • Reduced missed work days, physician visits, attacks • Saved $3 in healthcare and lost work days for every $1 spent	• RCT • Home-based environmental interventions • Delivered by environmental counselor to high risk children with asthma • $1469/patient • 37.8 additional symptom-free days • Each symptom-free day gained costs $28

The Evidence

Key Quote:

"By investing in good health, we can add billions of dollars in economic growth in the coming decades."

Ross DeVol, Director of Regional Economics and the Center for Health Economics, Milken Institute

Michigan:
Replication & Evaluation

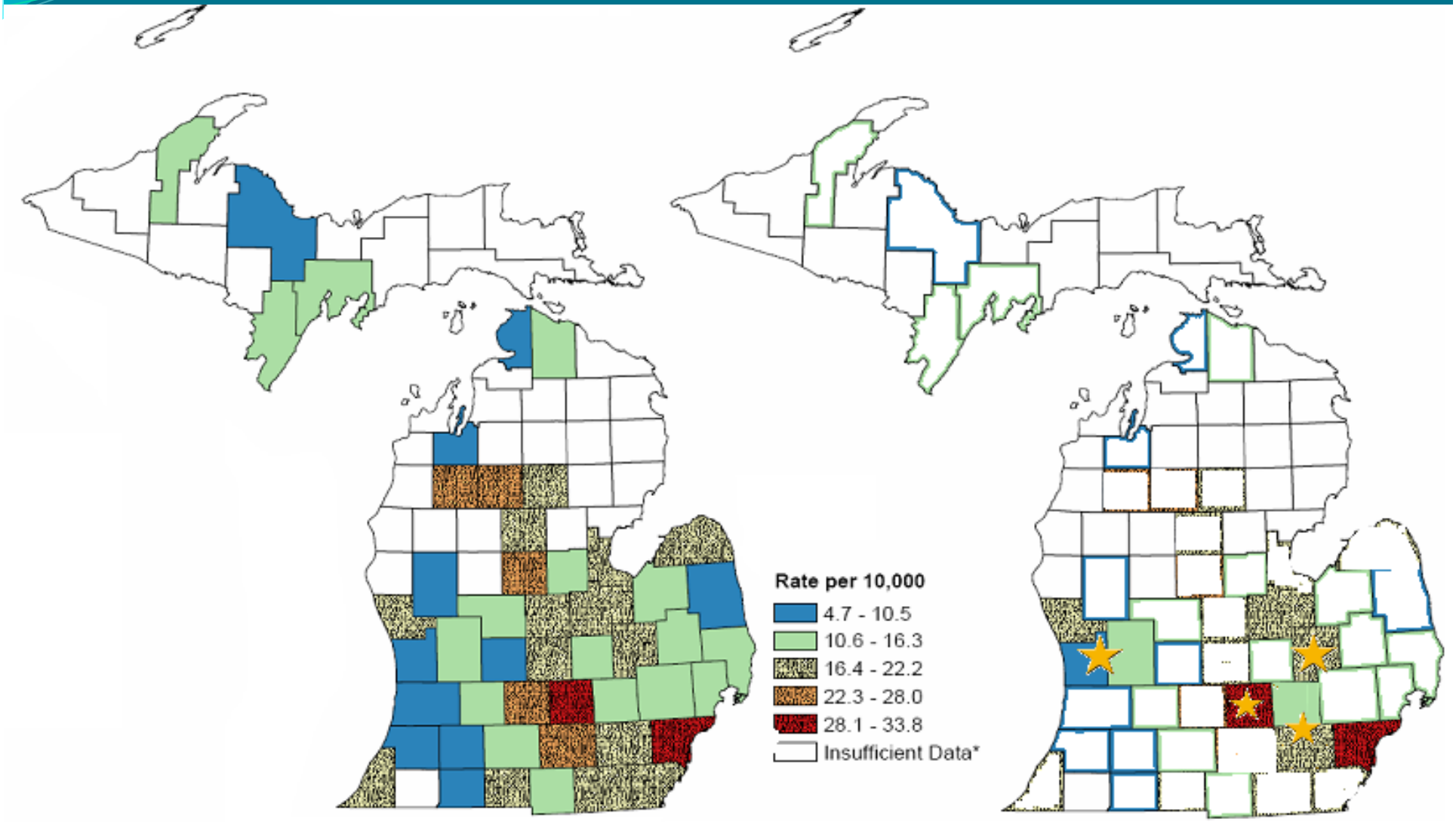
MDCH Asthma Program's Role

- Facilitating resources
  - Mentoring
  - Surveillance data
  - Medicaid
  - Other partners
- Seeking out lead organizations
- Marketing
- Targeting burden/capacity for sustainability
  - Assess asthma burden
  - Community Resource Assessment Tool
- Bringing people together
- Develop evidence
- Communication

Problem solving!

Targeting Communities

- High Risk Profile
  - Hospitalization & ED
  - Medicaid:
    - Hospitalizations
    - ED visits
    - Persistent Asthma
    - Beta-Agonist use
- Community Capacity
- Cost of program
- Capacity of FTE
- Revenue potential
  - Potential participants
  - Expected completion


Rate per 10,000
4.7 - 10.5
10.6 - 16.3
16.4 - 22.2
22.3 - 28.0
28.1 - 33.8
Insufficient Data*

Genesee County Asthma Network

- Multi-organizational community coalition
- Started in 1998, adopted MATCH model in 2008
- Lead: Hurley Medical Center
- Recognized with EPA Leadership Award, faculty
- Reimbursement contracts with 3 health plans, anticipate 2 more soon

GCAN
Genesee County Asthma Network

Comprehensive Asthma Program (CAP)

- Started as a school-based asthma ed program
- Adopted MATCH model in 2008
- Lead: St. Joseph Medical Center- Homecare Dept.
- Member of multi-organizational community coalition
- Reimbursement contracts with 5 health plans

ST. JOSEPH MERCY ANN ARBOR
SAINT JOSEPH MERCY HEALTH SYSTEM

WASHTENAW
Asthma Coalition

Capital Area Asthma Management Program (CAMP)

- Newest MATCH site: March 2011
  - Inspired by the death of a local child
- Lead: Ingham Co. Health Department
- Case managers are public health nurses, already going into homes for other reasons
- Actively seeking health plan reimbursement
- Works closely with MDCH Healthy Homes University

Doesn't always take… Berrien County

- ✓ enough burden
- ✓ assessments completed
- ✓ health system administrator said "YES!"
- ✓ plans made

But…

- ✓ a key VP left
- ✓ diabetes clinic start-up became competition
- ✓ local coalition not able to take it on

….and it fizzled.

Doesn't always take…

Detroit

- ✓ Detroit Children's Hospital planned to convert their mobile asthma unit to a MATCH program
- ✓ Detroit Health Department wanted to use their public health nurses to perform MATCH

But…

- ✓ a merger halted plans at the hospital
- ✓ politics and funding issues stopped the health department's attempt

…we haven't given up!

Replication in Michigan Lessons Learned

- Each community is different, but replication is possible!
- Lead organization
- Address health plan issues
- Model fidelity vital
- Not all about the money
- Community-based program best
- State public health asthma program has a role

MATCH Evaluation

- Purpose
  - Determine if pilot results are replicable
  - Estimate impact on outcomes & quality of life
  - Assist programs in evaluation
- Data Sources
  - Client data from case management services
  - Michigan Data Warehouse – Medicaid Data ON HOLD

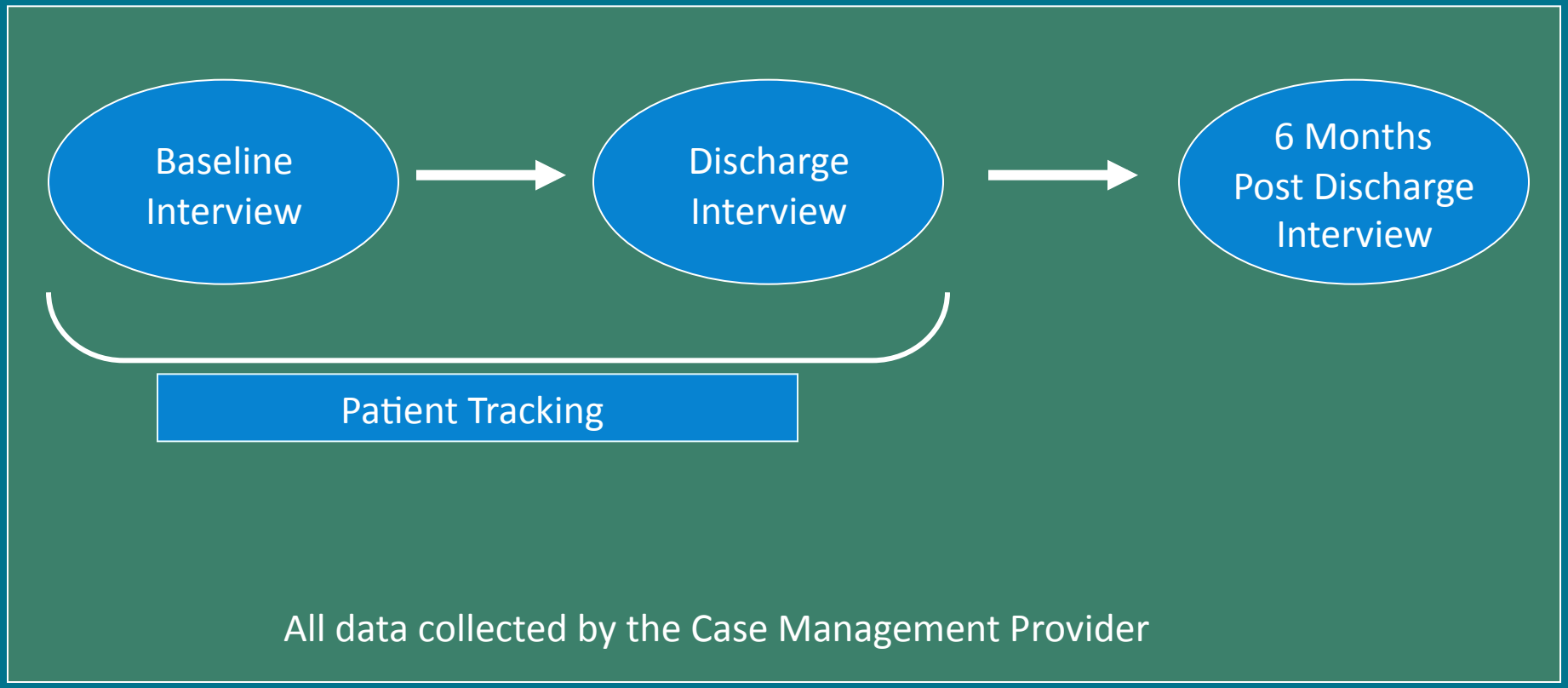
Outcomes

- Short-term outcomes: better understanding of impact of MATCH
- Long-term outcomes: improving the coordination of asthma care for patients.

- Feasibility – What are the challenges to using MATCH?
- Impact – What is MATCH's impact on QOL?
- Process – What are essential resources needed?

Overall Evaluation Design

- Pre-post analysis of MATCH program participants



Forms

Completed by Case Manager

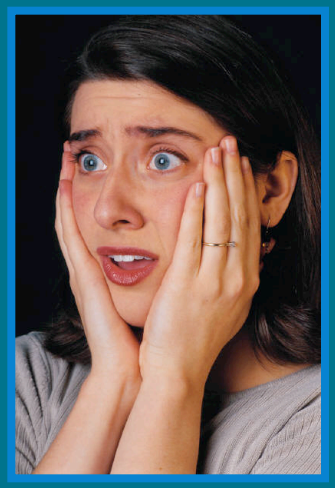
- Patient Tracking Worksheet
- Intake Visit Form
- Follow-up Visit Form
- Discharge Visit Form
- Tracking Log for Refusals/ Ineligibles

Completed by Evaluator

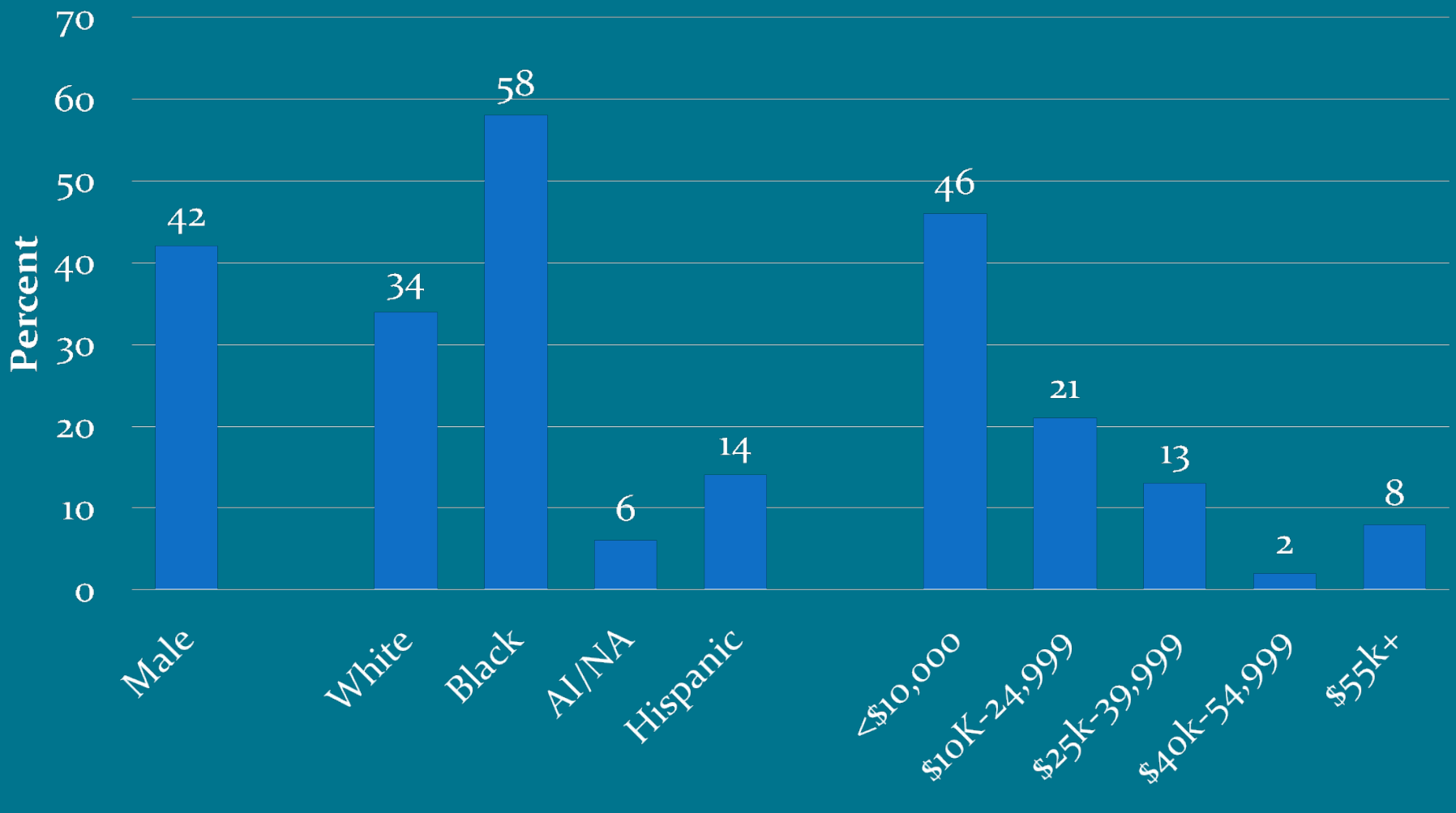
- Post Discharge Survey

Completed by Patient or Parent

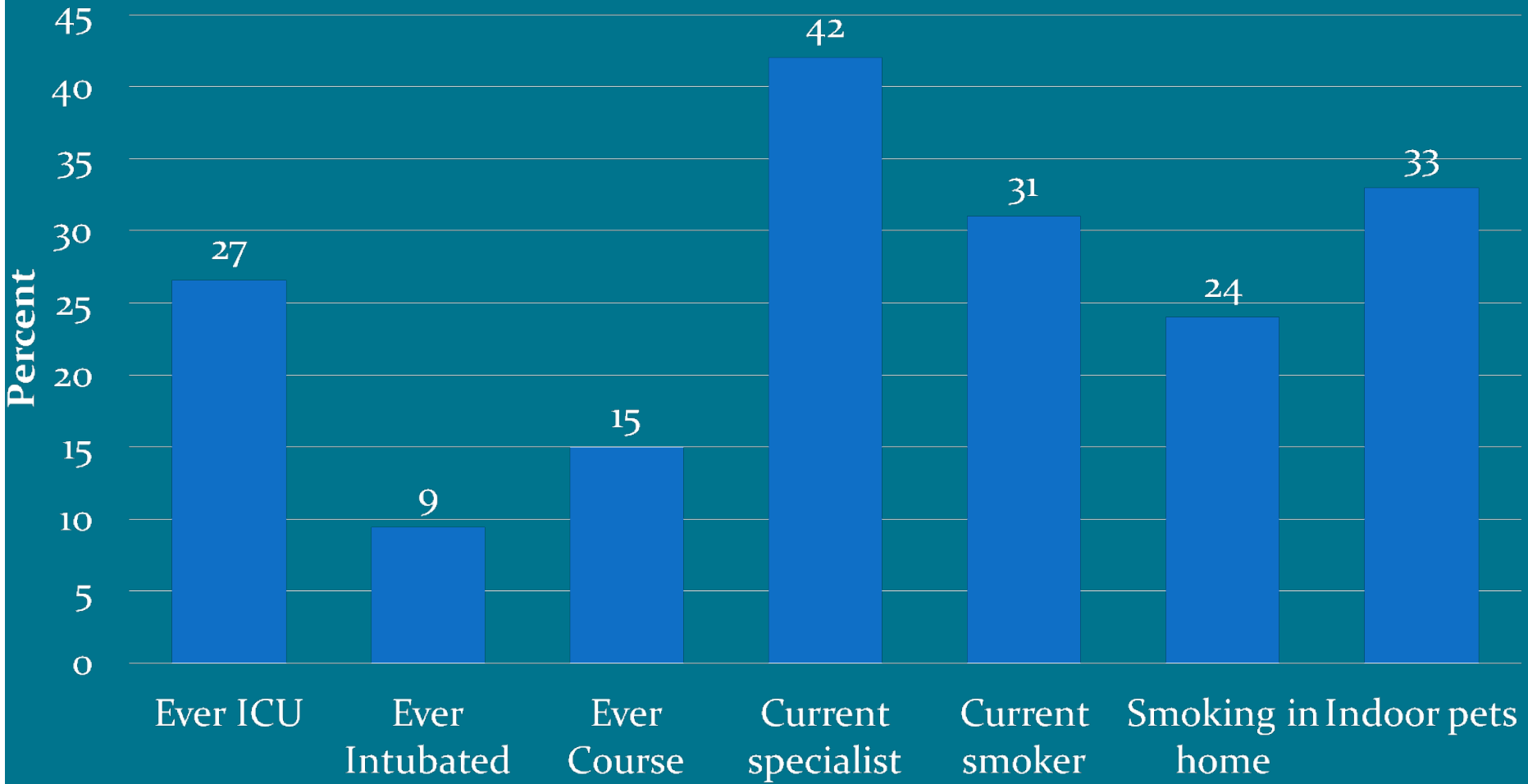
- Asthma Control Test
- Patient Quality of Life
- Caregiver Quality of Life
- Satisfaction Survey



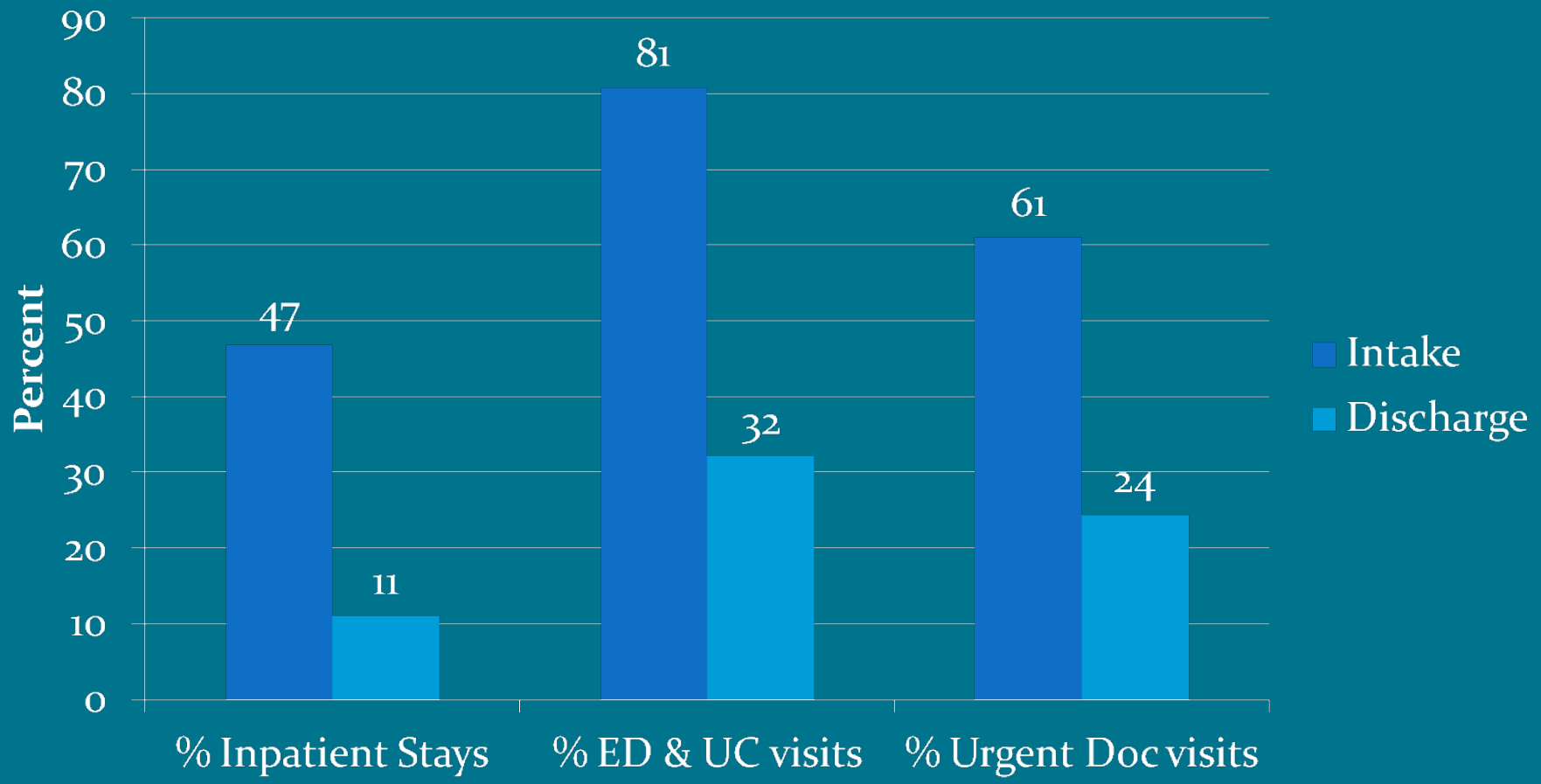
Intake Demographics



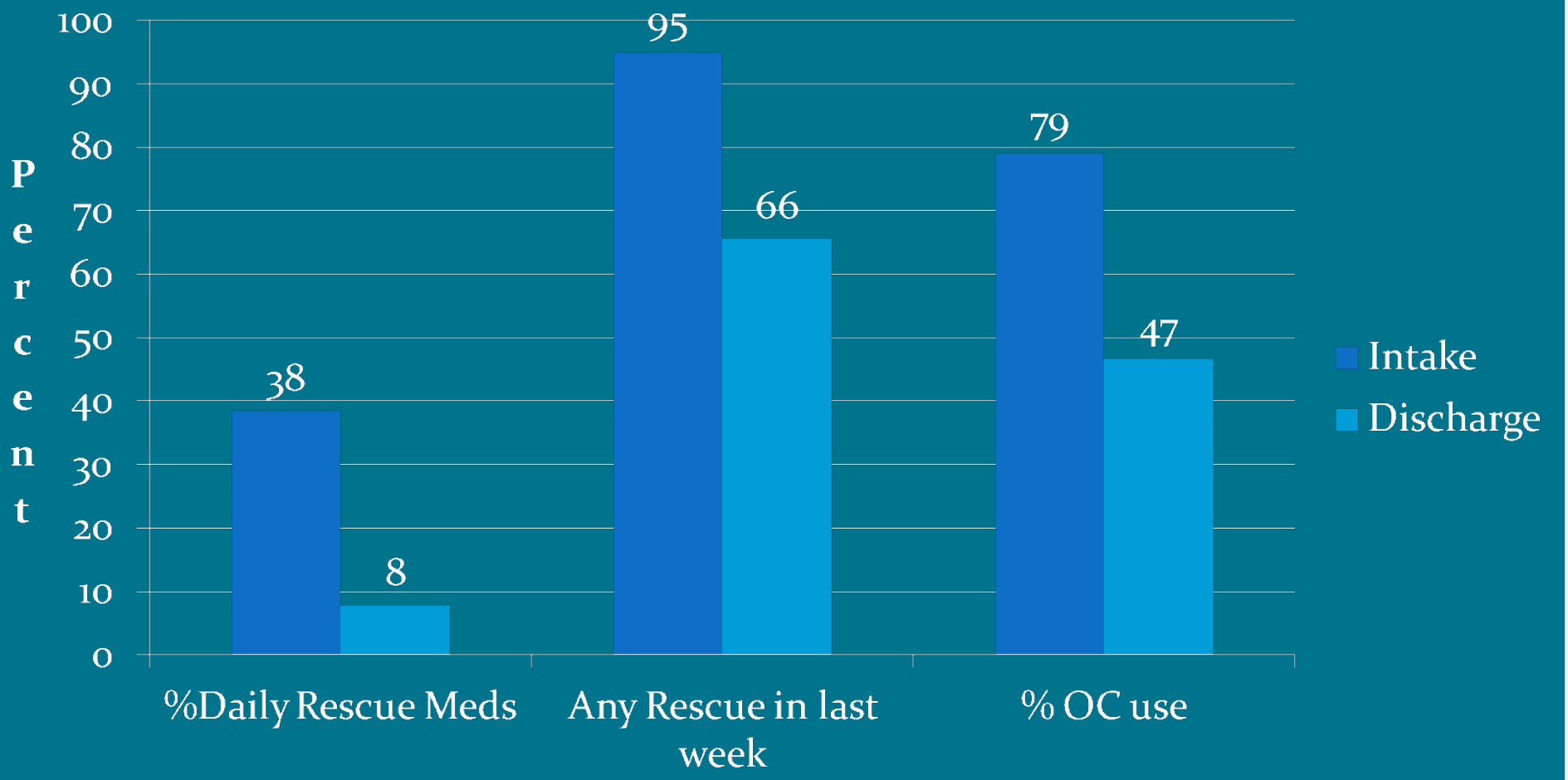
At Baseline


Percent
45
40
35
30
25
20
15
10
5
0
27
9
15
42
31
24
33
Ever ICU
Ever Intubated
Ever Course
Current specialist
Current smoker
Smoking in home
Indoor pets

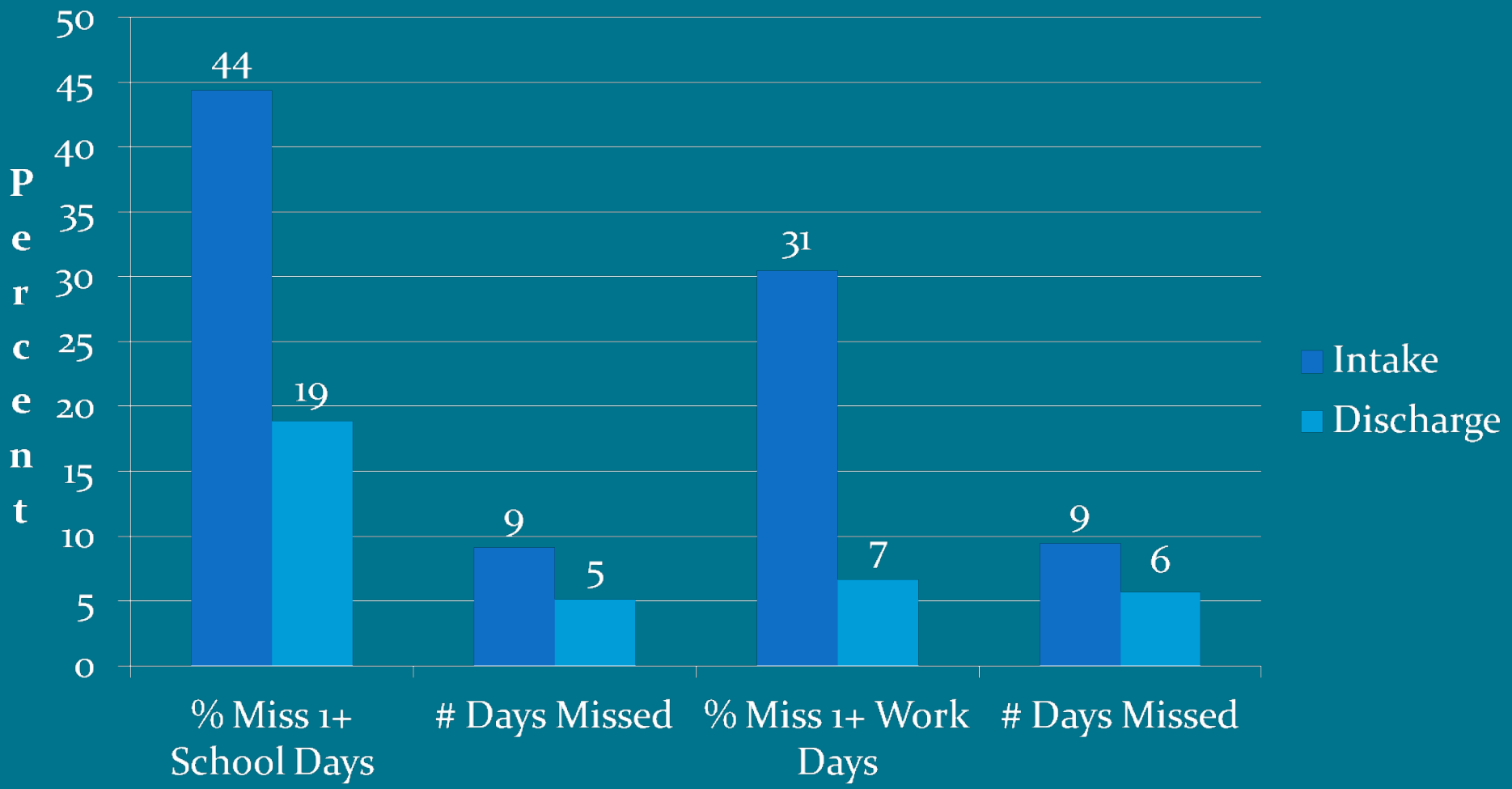
Urgent Asthma Utilization



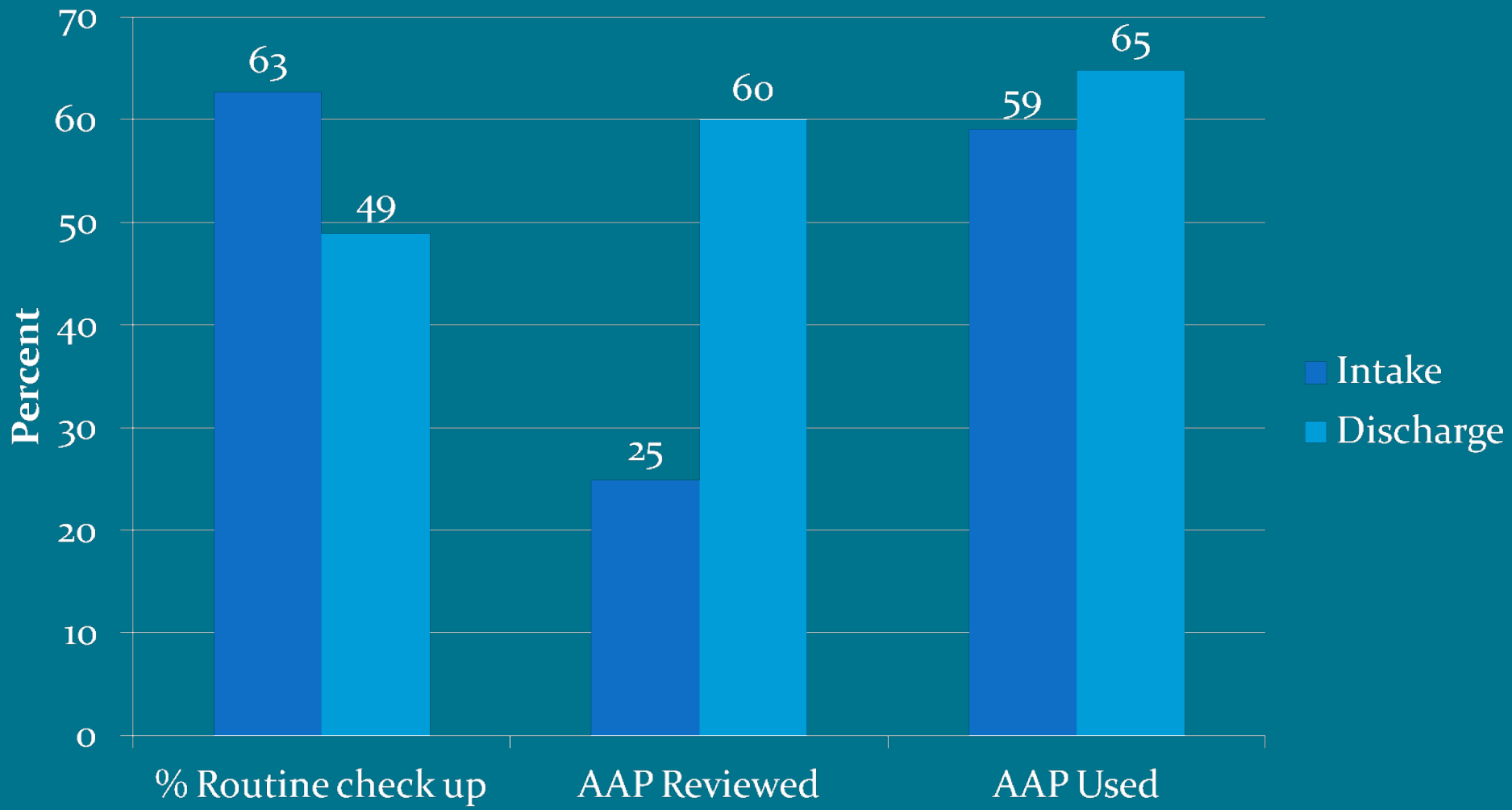
Urgent Asthma Medication



School and Work Days Missed



Check-ups, Asthma Action Plans



MATCH Evaluation Summary

- Serving disparate, low income population
- Population was poorly controlled at intake
- Reduced ED visits, hospitalizations
- Reduced use of SABA, oral steroids
- Improved work and school attendance
- Improved review/use of asthma action plans

MATCH Integration

- Healthy Homes – ACE grant
- Patient Centered Medical Home initiatives
  - CHAPS and WCHAPS
- Community transformation activities

Building YOUR Value Proposition

Charting Your Route Forward - *Knowing Where You Want to End Up and Writing the Plan to Get There* ..... **9:00 – 10:00 am**

EXERCISE #4

My **Population of Focus:** The People I Serve:_____

My Mission:

The **Long-Term Impacts** I Will Commit to Achieving for My

Population of Focus:_____

What I Will Measure:_____

My Goals:

What I Will Achieve to Ensure I Meet My Commitments:

Short-term & Intermediate Outcomes: _____

_____

What I Will Measure:_____

My Objectives:

What I will measure and track to assess my products and activities

Outputs: _____

My Tasks:

The **Activities** I Will Run to Achieve Impacts: _____

_____

My Costs:

The investments that drive the price

Management (_____%):_____

Evaluation (_____%): _____

Programming (_____%): _____

EXAMPLE
Pop of Focus: Children >18 yrs with poorly controlled asthma: 5,000 children

EXAMPLE
Impact: Improve self-management
Measure: % of families visited who report increase in number of symptom-free days
Impact: Fewer adverse asthma events
Measure: Decrease pediatric ER visits by 50%

EXAMPLE
Intermediate Outcomes: Reduced exposure to environmental triggers
Measure: % of households maintaining a "trigger-free" environment at 6 month follow-up home visit
Short-Term Outcomes: Increased awareness of environmental triggers
Measure: % of families with demonstrated knowledge increase through post test

EXAMPLE
Outputs: Number of providers conducting environmental assessments, Number of environmental home visits conducted , % of children referred for home visits

EXAMPLE
Activity: Train lay health workers to deliver home visits
Activity: Train providers to use electronic environmental assessment form
Activity: Develop referral system for providers to make referrals for home visits

EXAMPLE
Management (20%): $64,000/year
Management (10%): $32,000/year
Management (70%): $224,000/year
TOTAL: **$320,000**

Leading a Breakthrough—*Realistic Requests and Bold Offers*.....10:00 – 10:45 am

EXERCISE #5

For $_____ (MY COSTS) my program will improve asthma outcomes for _____ (MY POPULATION OF FOCUS) by achieving _____, _____, and _____ (MY IMPACTS & OUTCOMES).

My community will benefit from my work in terms of (MY UNIQUE VALUE FOR THIS AUDIENCE) _____

_____

_____

_____

EXAMPLE

For $250,000, Asthma Care in Action will improve the quality of life for the 3,000 pediatric asthma patients we serve by reducing adverse asthma events by 50%, doubling the number of families capable of effectively self-managing their asthma, and reducing children's exposures to environmental asthma triggers in their homes. We estimate our work will deliver $850,000 per year in savings to the health care system through 50% fewer ER visits.

What data do I need to refine my value proposition statement and how can I get it?

_____

_____

_____

Who in my community needs to hear my value proposition statement?_____

_____

_____

_____

Audience	Likely Value Preferences
Foundations	Investment, Build Program Sustainability
City Council, Mayor	Population results, Budget Control
Medicaid (State legislators, Governor	Lower Costs
Insurance Companies	Cost Savings, HEDIS scores
Primary Care Providers	Pay for Performance
Hospitals	Reduced ED visits, Lower Bad Debt from Un/underinsured
Local Corporations	Less Employee/Family Stress, Improved Productivity
Program Partners	Lower Community Asthma Costs

Who Needs to Be on Board?

National Partners

- Funding - EPA, HUD
- Educational resources
  - EPA's Asthma Community Network
    - www.asthmacommunitynetwork.com
- Collaborative opportunities through:
  - CHEST coalition symposia and e-mail list-serve
  - EPA's Asthma Community Network

State Partners:
A (Michigan) State Perspective

- MDCH Asthma Program
- MDCH Managed Care Medicaid
- Michigan Association of Health Plans
- Health plans
- Health systems
- Asthma Mortality Review Panel

Local Partners

- Asthma champions/coalition
- Foundations
- Hospital system or other organization
- School districts
- Health care providers/institutions
- Universities
- Media
- Health plans
- Local Health Department

Next Steps…

- Think about YOUR program…
- What is your program's Value Proposition?
  - Population of Focus
  - Mission
  - Goals
  - Objectives
  - Tasks
  - Costs
- Is MATCH a fit for you?

MATCH Works

- Growing well in Michigan
- Positive preliminary data
- Long track record of success
- Long track record of sustainability
- Integrated with community intervention efforts

New Mexico's Home-Visit Asthma Management Program (H-VAMP)

- Inspired by MATCH presentation in 2008, started 2009
  - 3 home visits by AE-C, 2 follow-up phone calls
  - Pre/Post-program assessment by AE-C
  - Follow-up visit with specialist
- HMO reimbursement, patient knowledge improvement

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- www.GetAsthmaHelp.org/managing-asthma-match.aspx
- http://breeze.mdch.train.org/asthmanetwork/
- www.asthmanetworkwm.org
- www.naecb.org