

# Fight Asthma Now® (FAN)

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**RESPIRATORY HEALTH ASSOCIATION™**  
of Metropolitan Chicago

# Fight Asthma Now® (FAN)

## Disclosure of Conflict of Interest Information

Speakers for this presentation have the following relationships that exist related to this presentation:

**Giselle Mosnaim, MD, MS, FAAAAI** : Speaker's Bureau/Honoraria: Astra Zeneca, Merck, GlaxoSmithKline, Schering Plough

Scientific Advisory Board/Stock Options/Research Grant: Electrocore, LLC.,

**Lisa Sharp PhD**: No conflicts related to this presentation to disclose

**Maureen Damitz, AE-C**: Research Funding/Grants: received from Merck Childhood Asthma Network Inc., Abbott Laboratories

# Funding

- The validation study was funded in part by the following:
  - Respiratory Health Association of Metropolitan Chicago
  - Abbott Laboratories

# Program Goals

- Asthma self-management program designed for youth and teens
  - Support the NHLBI EPR-3 Asthma guidelines
  - Address asthma pathophysiology, warning signs, trigger avoidance, tobacco, and social barriers to proper care
  - Understand proper use of quick-relief and controller medications
  - Self-monitoring: spacer technique, peak flow meter and asthma action plan use



# Program Goals

- Meet the needs of diverse populations
  - Address contextual barriers
  - Fit into a school structure
  - Be flexible for all communities



# FAN

## Program Background

- Extensive research into existing programs
- Focus groups with youth and teens
- Advisory Panel formed
  - Pediatricians with a focus on asthma
  - Certified Asthma Educators
  - Advanced Practice Nurses & Registered Nurses
  - Respiratory Therapists
  - Community Educators
  - Parents of children with asthma

# Program Development

- Feedback from 140 Youth and Teens
  - Do not use cartoon figures
  - Let us talk about OUR asthma
  - Use our language
  - Have pictures of kids who look like us
  - Give us real information

# Advisory Feedback on FAN Content

- Edited for accuracy
- Helped to choose content order and flow
- Ensured the content was consistent with the EPR- 3 guidelines
- Ensured content met the needs of:
  - Youth and Teens
  - Schools
  - Parents
  - Communities



# Program Design

- Standardized format
  - Two 90-minute sessions or
  - Four 45-minute sessions
- Settings
  - Schools
  - Community (i.e. Boys and Girls Clubs, Chicago Park District Programs)
  - Places of worship

# Program Differences

- Youth: 3<sup>rd</sup> – 6<sup>th</sup> grade
- Teens: 7<sup>th</sup> – 12<sup>th</sup> grade
- Youth vs. Teens
  - Different social issues
  - Tobacco is addressed differently
  - Teen program has a section on “Preparing for Life on Your Own”
    - College
    - Career/Jobs
    - Talking with your healthcare provider



# Training of FAN Educators

- Received full-day of training at RHAMC by Certified Asthma Educator
  - Three hours of Asthma Management training
  - Four hours of FAN Training
  - Education on working with target population in the school setting
- Provided on-going support
- Experienced trainers observed and provided educators with feedback following their first FAN session



# FAN Program Implementation as of June 2008

- Chicago Public Schools
  - 1150 youth and teens
- Southern Cook County Schools
  - 436 youth and teens

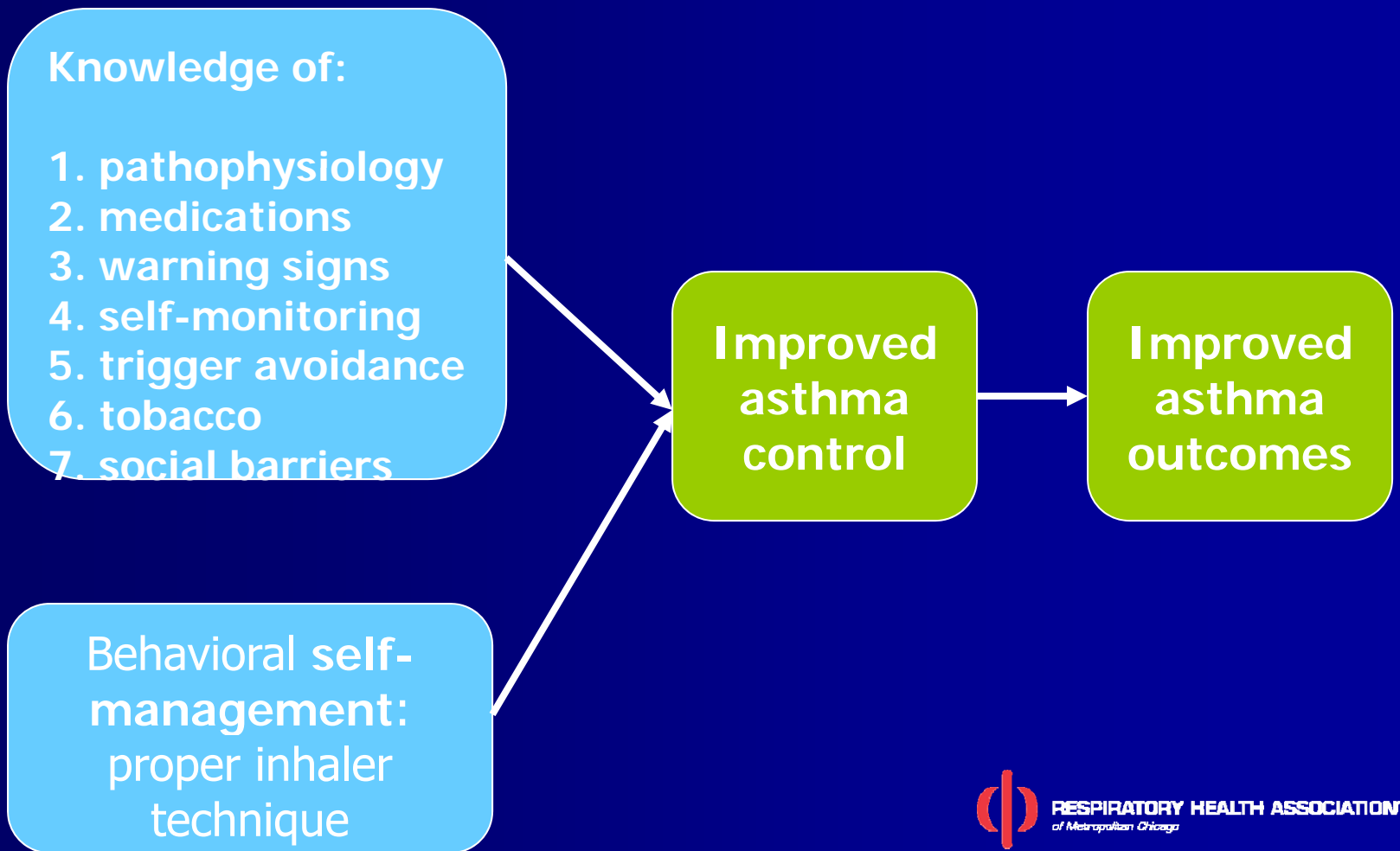
# One Month Later

Parents reported:

- 82% of the children were carrying their quick-relief inhalers all or most of the time
- 92% of the children remembered what to do during an asthma episode
- 94% of the children knew when to use their quick-relief inhaler

N=82 parent surveys completed one month after  
child completed FAN

# Our Goal is to Improve Asthma Outcomes



# FAN Validation Study

- Timeline: January - June 2008
- Study design
  - Intervention schools
  - Waitlist–control schools
- Schools enrollment criteria
  - $\geq 70\%$  student body receive free or reduced school lunch



# FAN Validation Design

- Intervention Schools
  - Received FAN educational program in 4 sessions between pre- and post-testing

# FAN Validation Design

## ■ Waitlist-control Schools

- Completed pre- and post-knowledge and spacer technique testing on the same day as a matched intervention school
- Children  $\geq 12$  years of age were administered the Asthma Control Test (ACT<sup>®</sup>) at baseline
- Received FAN educational program within 1 month of post-testing



# Recruitment

- School participation was voluntary
  - Recruitment conducted by RHAMC through fax (up to 3 attempts) and/or follow-up calls
- School Contact Person(s)
  - Principal/Vice–Principal
  - Nurse
  - Case Manager



# School Recruitment

Type of School	# of Schools Contacted via Fax
Chicago Public High Schools	116
Chicago Public Elementary Schools	483
Chicago Charter Schools	67
Southern Cook County High Schools	31
South Cook County Elementary Schools	191



# Participant Selection

- Principal provided written agreement for school to participate in FAN program
- School personnel assisted with identification of students with asthma
- Opt-out permission slips sent home to parents of identified students
- Date and time of FAN sessions arranged during the school day

# Program Participants

	Youth		Teen	
	Control Classes	Intervention Classes	Control Classes	Intervention Classes
# of Classes	6	17	5	13
# of Subjects	78	208	46	143

# Demographics of Youth

Youth				
	Intervention N=208		Control N=62	
Variables	M	SD	M	SD
Age	10.00	1.21	10.13	1.27
<b>Gender</b>				
Girls	89	42.8%	30	48.4%
Boys	119	57.2%	32	51.6%
<b>Ethnicity</b>				
AA	132	63.5%	41	66.1%
Hispanic	24	11.5%	16	25.8%
Other	25	12.1%	3	4.8%
Don't know	27	13.0%	2	3.2%



# Pre-test and Post-test Knowledge and Spacer Use

Youth				
	Intervention N=208		Control N=62	
Variables	M	SD	M	SD
<b>Knowledge</b>				
Pre	11.65	1.78	10.02	2.21
Post	13.30	1.69	10.21	2.54
<i>Change</i>	<b>1.62*</b>	<b>1.91</b>	<b>0.19*</b>	<b>2.10</b>
<b>Spacer Use</b>				
Pre	2.19	2.42	2.19	2.53
Post	6.34	1.32	2.53	2.46
<i>Change</i>	<b>4.14*</b>	<b>2.53</b>	<b>0.26*</b>	<b>1.71</b>

\* p<0.001 for independent t-tests on change scores (post-score minus pre-score) between intervention and control groups.

# Demographics of Teens

Teenagers				
	Intervention N=132		Control N=46	
Variables	M	SD	M	SD
Age	12.86*	0.86	13.50*	0.75
Gender				
Girls	67	50.8%	18	39.1%
Boys	65	49.2%	28	60.9%
Ethnicity				
AA	117	88.6%	31	67.4%
Hispanic	2	1.5%	10	21.7%
Other	10	7.6%	4	8.7%
Don't know	3	2.3%	1	2.2%
ACT	18.89	3.47	18.33	4.73

# Pre-test and Post-test Knowledge and Spacer Use

Teenagers				
	Intervention N=132		Control N=46	
Variables	M	SD	M	SD
<b>Knowledge</b>				
Pre	12.21	1.76	12.09	1.92
Post	13.80	1.60	12.06	1.83
<i>Change</i>	<b>1.58*</b>	<b>1.71</b>	<b>0.0*</b>	<b>2.01</b>
<b>Spacer Use</b>				
Pre	2.17	2.52	1.83	2.31
Post	6.81	1.06	2.91	2.63
<i>Change</i>	<b>4.64*</b>	<b>2.53</b>	<b>1.17*</b>	<b>2.09</b>

# Future of FAN

- Oral presentation was done at the AAAAI meeting in February 2010
- Other states have expressed interest in FAN program
- FAN is seeking additional funding for sustainability and expansion of programs
- FAN is being featured in a National pilot educational program for dissemination of the Guidelines Implementation Panel (GIP) Report for the Expert Panel Report 3 (EPR-3) —Guidelines for the Diagnosis and Management of Asthma