Home Based Asthma Management:
A Collaborative Effort to Reduce the Burden of Pediatric Asthma

October 7, 2021

NewYork-Presbyterian
Queens

CELEBRATING 150 YEARS
stmary'skids

St. Mary's Home Care

NewYork-Presbyterian
Queens

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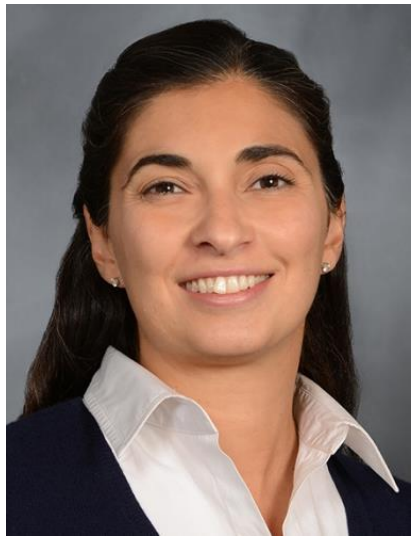


NewYork-Presbyterian
Queens

New York-Presbyterian is one of the nation's most comprehensive, integrated academic healthcare systems, encompassing 10 hospital campuses across the Greater New York area, more than 200 primary and specialty care clinics and medical groups, and an array of telemedicine services.

New York-Presbyterian Queens is a community hospital serving Queens and metropolitan New York and has been recognized as **one of the best regional hospitals** in New York State, according to the 2020-2021 US News & World Report "Best Hospitals" survey.

New York Presbyterian Queens has:

- 14 clinical departments
- numerous sub-specialties
- Affiliations with Weill Cornell Medicine – an ivy league medical school that is among the nation's best in patient care, medical education and research
- network of affiliated physician practices and community health centers.

Weill Cornell Medicine

BEST HOSPITALS U.S.News HONOR ROLL 2021-22

NewYork-Presbyterian Queens

St. Mary's Home Care

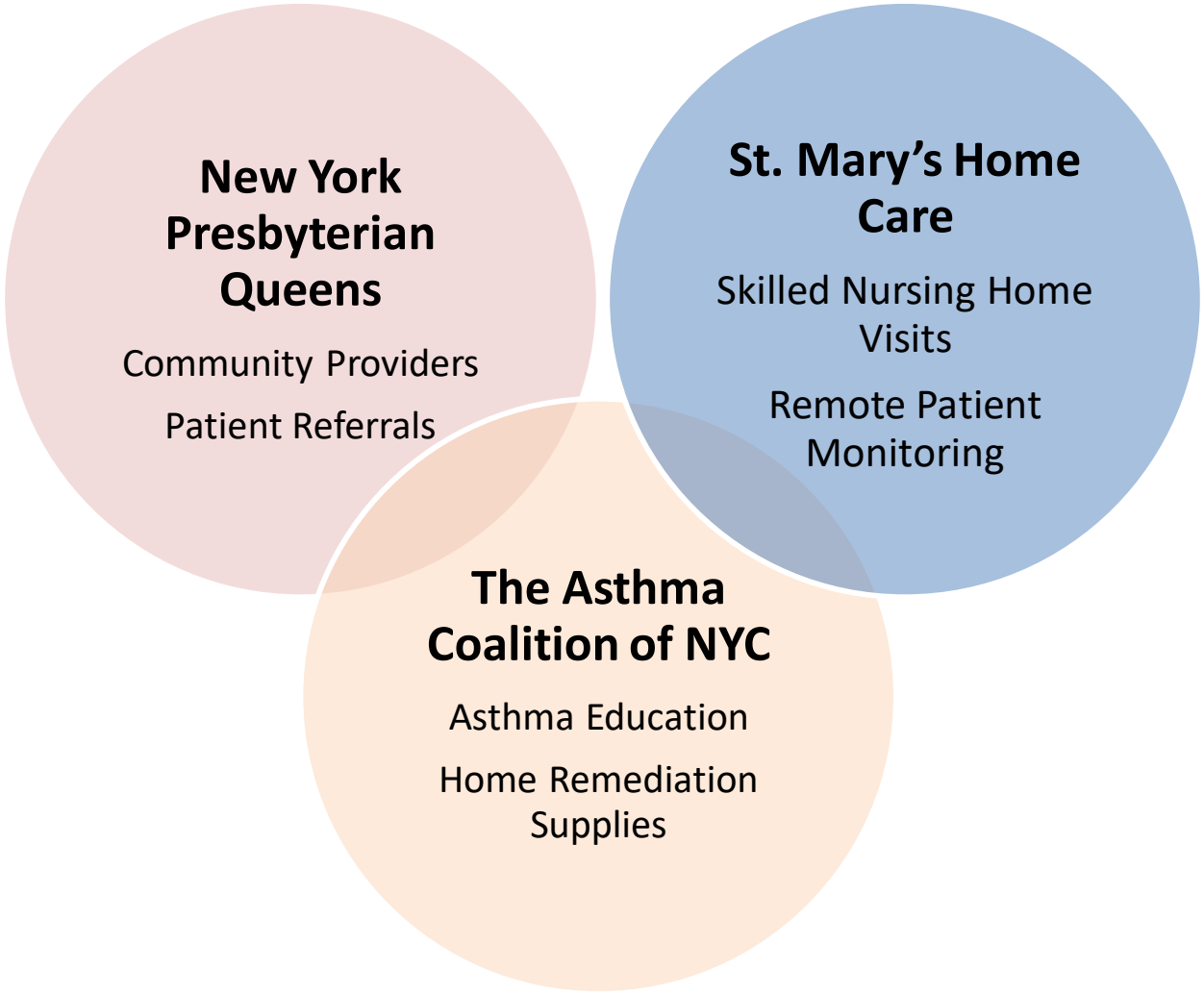
- Serves over 1250 children and young adults from birth to age 44
- Most vulnerable – medically fragile and medical complex

- *Services*

Skilled Nursing	Social Work
Telehealth (RPM & Virtual Visits)	Physical Therapy
Occupational Therapy	Speech Therapy
Palliative Care	Nutrition

- *Geography*
  - Five boroughs of NYC, Nassau and Suffolk Counties

❑ Collaboration



❑ NYPQ Community Needs Assessment

CHALLENGES	GOALS
- Increasing asthma rates in Queens	- Reduce asthma rates in Queens
- Non-adherence to medication	- Reduce missed medication doses
- Home Triggers	- Reduce triggers
- Missed primary & specialist MD visits	- Reduce avoidable ED visits & Hospitalizations

❑Early Beginnings – DSRIP

Delivery **S**ystem **R**eform **I**ncentive **P**ayment("DSRIP")Program

- ❑ **New York Presbyterian Queens (NYPQ)** was designated as a DSRIP Hospital Performing Provider System (PPS) in 2014 and chose Project 3.d.11 – Expansion of a Home Based Asthma Program as one of their key projects.

St. Mary's Home Care

NewYork-Presbyterian Queens

2012
- 2013 -2018 NYS Prevention Agenda
- Focus on Pediatric Asthma - Reducing Pediatric ED visits

2014
- NYS DSRIP
- 3.d.iii Expansion of asthma home-based self -management programs

2015 Ongoing
- Collaboration I – Asthma Skilled Nursing Home Visits
- Education – Environmental Assessments – Trigger Reduction Remediation

2018
- Collaboration II - Asthma Home Visits Plus +
- Remote medication adherence monitoring

2020
- 2019-2024 NYS Prevention Agenda – Updated
- Expanded Focus on Chronic Disease, Cross-sector partnerships, Value Based Payment Models

2021 & Beyond
- Collaboration III – Chronic Disease Home Management Program

❑ Problem Statement-Asthma

2016 New York State

- **152,000 emergency department visits**
- **20,000 hospitalizations due to asthma**

❑ Project Aims

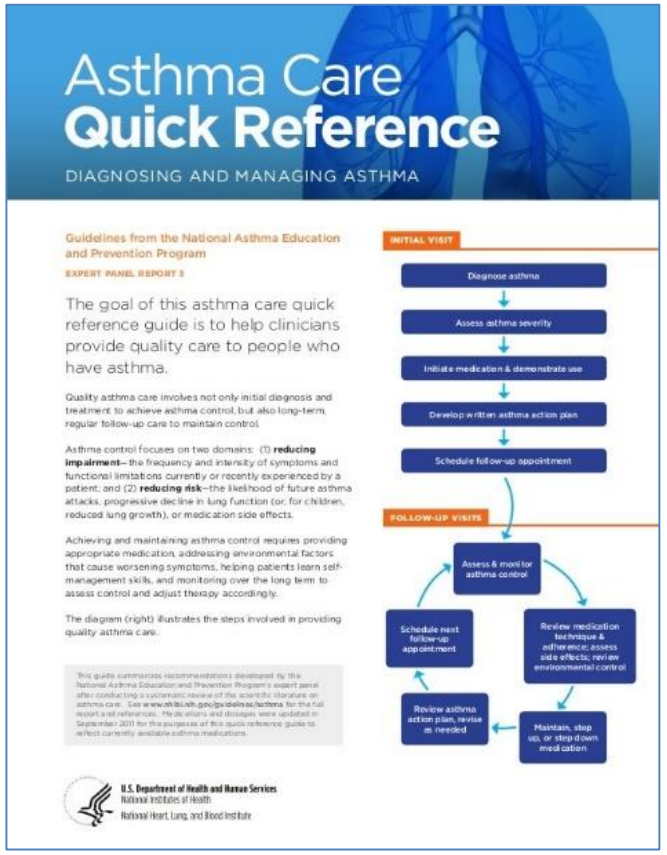
Decrease rate of hospitalizations & emergency department visits

Improve quality of life for individuals with asthma and their families

Increase collaboration between primary care & community providers

Improve asthma control among individuals with asthma

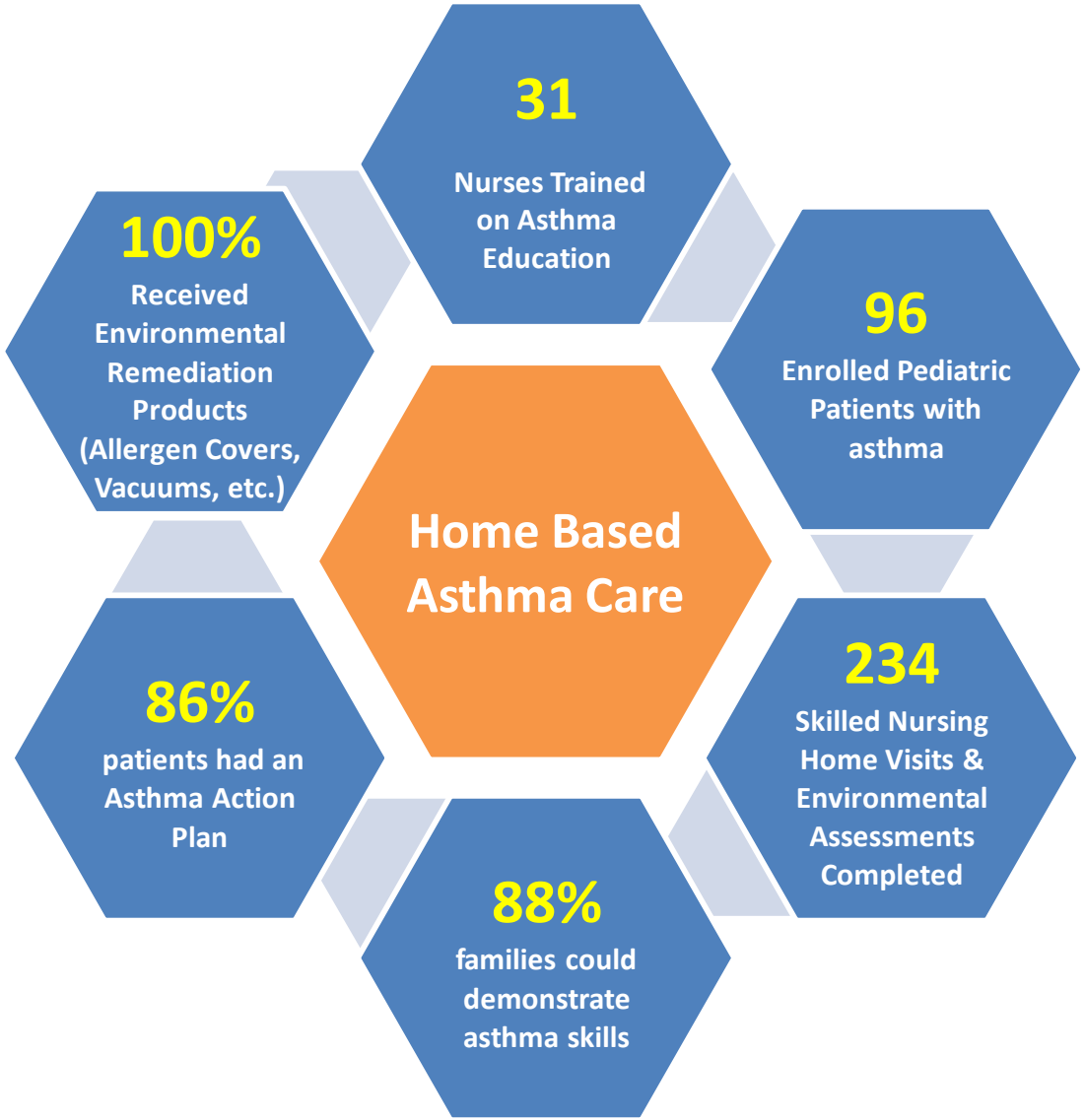
❑ Collaboration I - Asthma Program



- Family Engagement
- Two-way Communication
- Staff & Provider Education
- Home Visits
- Environmental Assessments
- Partnership

❑ Asthma Program

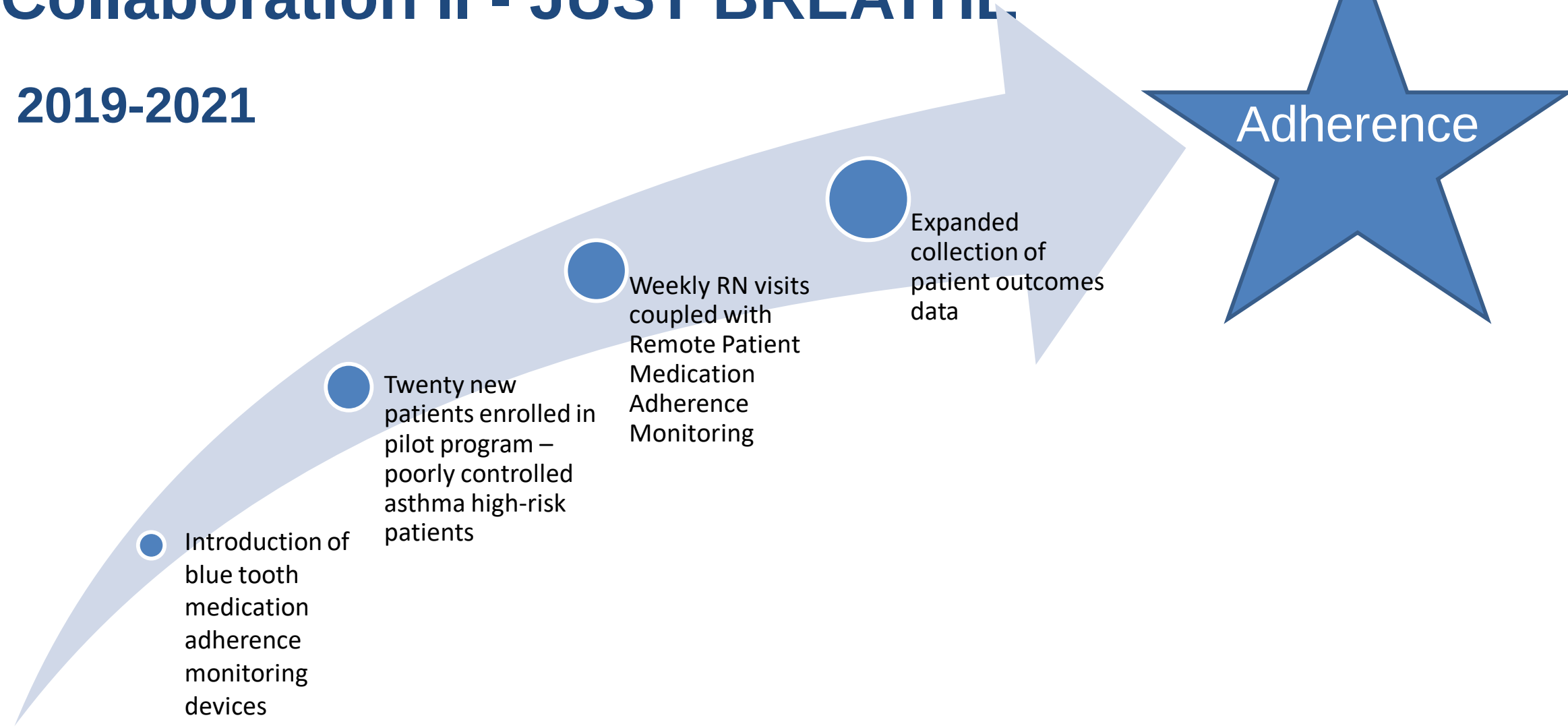
- **March 2016 –August-2017**
- **Achievements**



❑ Asthma Program

❑ Collaboration II - JUST BREATHE

2019-2021



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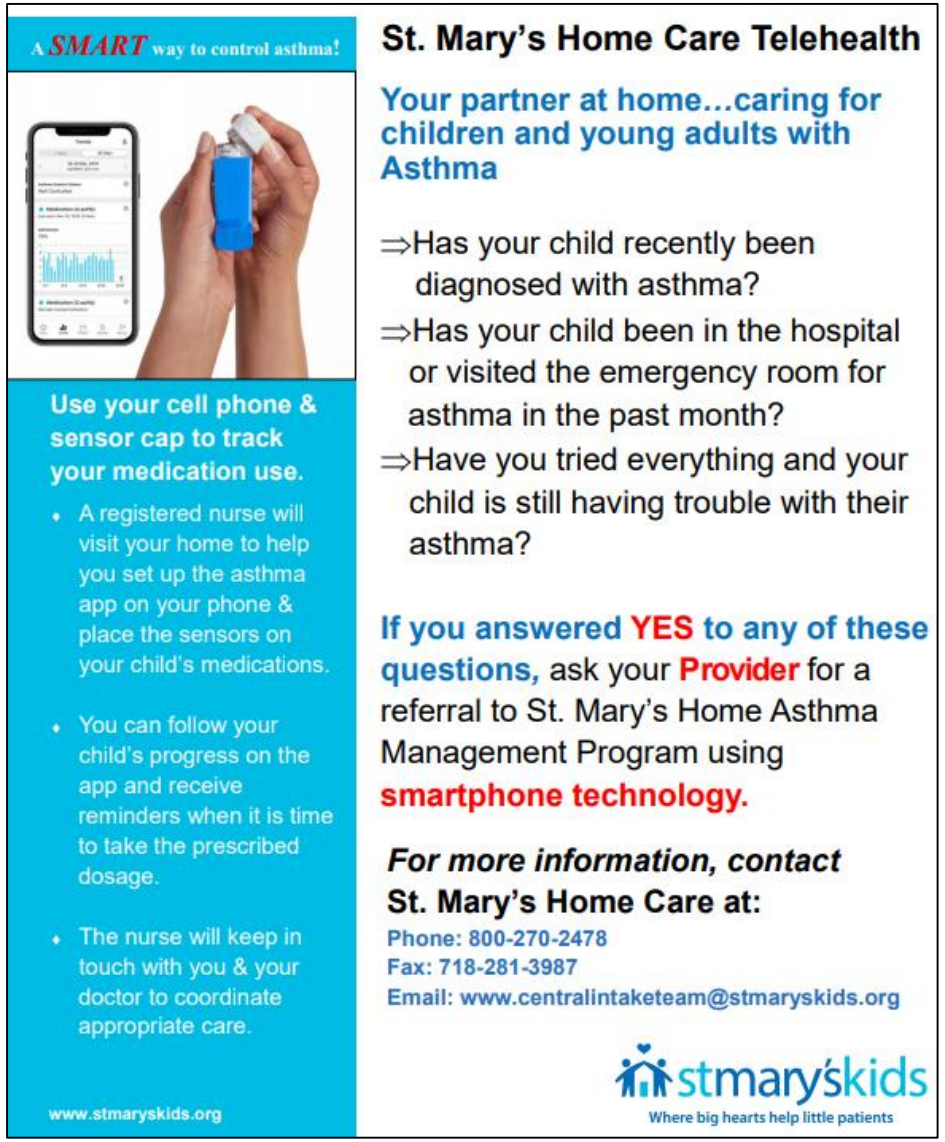


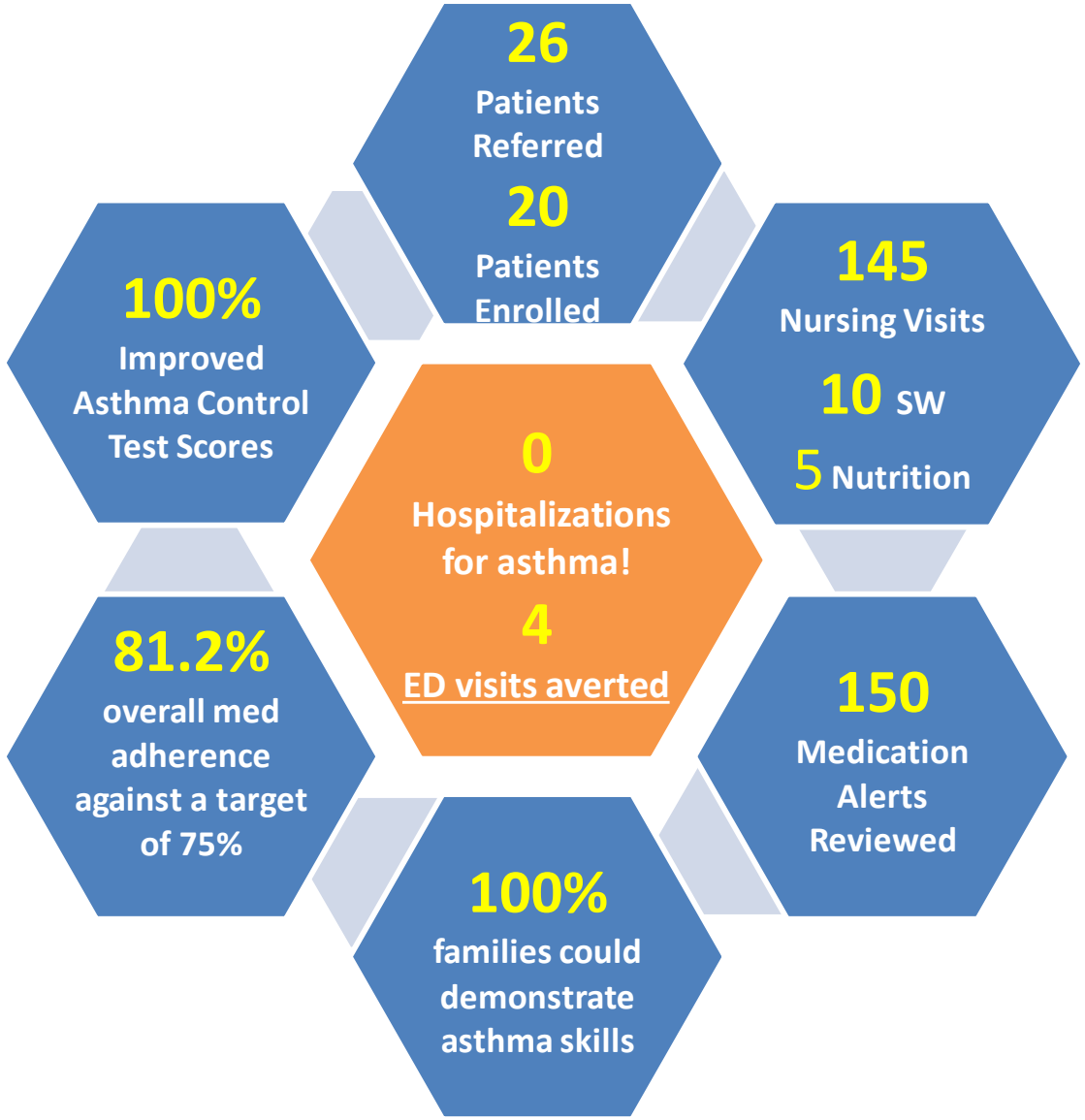
- "Smart" sensor caps placed on medication
- Parameters provided by patient's provider
- Remote monitoring of patient med adherence
- Dashboard alerts to Telehealth RN
- RN triage for timely intervention
- Prevents avoidable ED visits and hospitalizations

❑ JUST BREATHE*

- **January 2019–March 2021**
- ***Achievements***

  - ***Pre-Program (6 months prior)***
  - *8 patients /14 hospitalizations*
  - *14 patients / 32 reported ED visits*

  - ***Post-Program***
  - *20 patients / 2 hospitalizations*
  - *20 patients / 1 ED visit*
  - *20 patients – 4 ED visits averted*

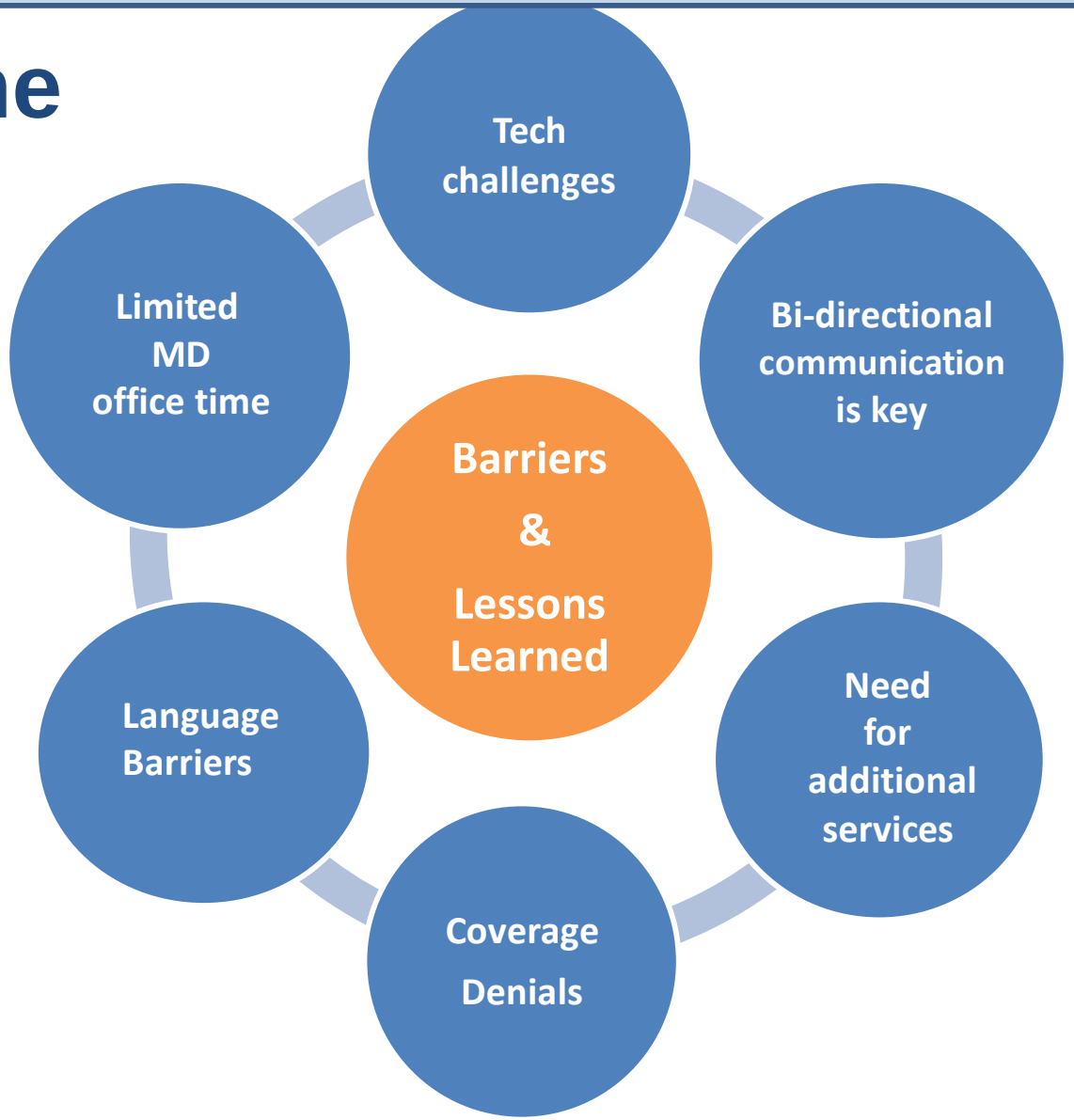


** Program continued throughout COVID Pandemic*

❑ Collaboration II Success Story: Eduardo

- 11-year old boy diagnosed with mild, persistent asthma, congenital tracheomalacia, sleep apnea, GERD without esophagitis.
- Living in a shelter.
- Enrolled in remote monitoring for asthma for 12 months
- Nurse obtained air conditioner
- Avoided ED visits and hospitalizations!

❑ Just Breathe




Success is a journey
not a destination.
Just keep learning
and keep growing.
Enjoy the journey!

❑ NYS Prevention Agenda-*2019-2024*

Figure 6: New York State Prevention Agenda 2019-2024 – Priority Areas, Focus Areas, and Goals

Priority Area: Prevent Chronic Diseases	**Focus Area 1: Healthy Eating and Food Security** Overarching Goal: Reduce obesity and the risk of chronic diseases
	Goal 1.1: Increase access to healthy and affordable foods and beverages
	Goal 1.2: Increase skills and knowledge to support healthy food and beverage choices
	Goal 1.3: Increase food security
	Focus Area 2: Physical Activity Overarching Goal: Reduce obesity and the risk of chronic diseases
	Goal 2.1: Improve community environments that support active transportation and recreational physical activity for people of all ages and abilities
	Goal 2.2: Promote school, child care, and worksite environments that support physical activity for people of all ages and abilities
	Goal 2.3: Increase access, for people of all ages and abilities, to safe indoor and/or outdoor places for physical activity
	Focus Area 3: Tobacco Prevention
	Goal 3.1: Prevent initiation of tobacco use, including combustible tobacco and electronic vaping products (electronic cigarettes and similar devices) by youth and young adults
	Goal 3.2: Promote tobacco use cessation, especially among populations disproportionately affected by tobacco use including: low SES; frequent mental distress/substance use disorder; LGBT; and disability
	Goal 3.3: Eliminate exposure to secondhand smoke and exposure to secondhand aerosol/emissions from electronic vapor products
	Focus Area 4: Preventive Care and Management
	Goal 4.1: Increase cancer screening rates for breast, cervical, and colorectal cancer
	Goal 4.2: Increase early detection of cardiovascular disease, diabetes, prediabetes and obesity
	Goal 4.3: Promote the use of evidence-based care to manage chronic diseases
	Goal 4.4: Improve self-management skills for individuals with chronic conditions

❑ Collaboration III:

Chronic Disease Home Management Program

❑ Problem Statement

Pediatric patients with chronic illnesses in Queens have poor adherence to treatment plans and limited access to care

❑ Project Aim

By referring pediatric patients with chronic illnesses to St. Mary's Chronic Disease Home Management program, we aim to reduce high cost health care utilization and improve Quality of Life.

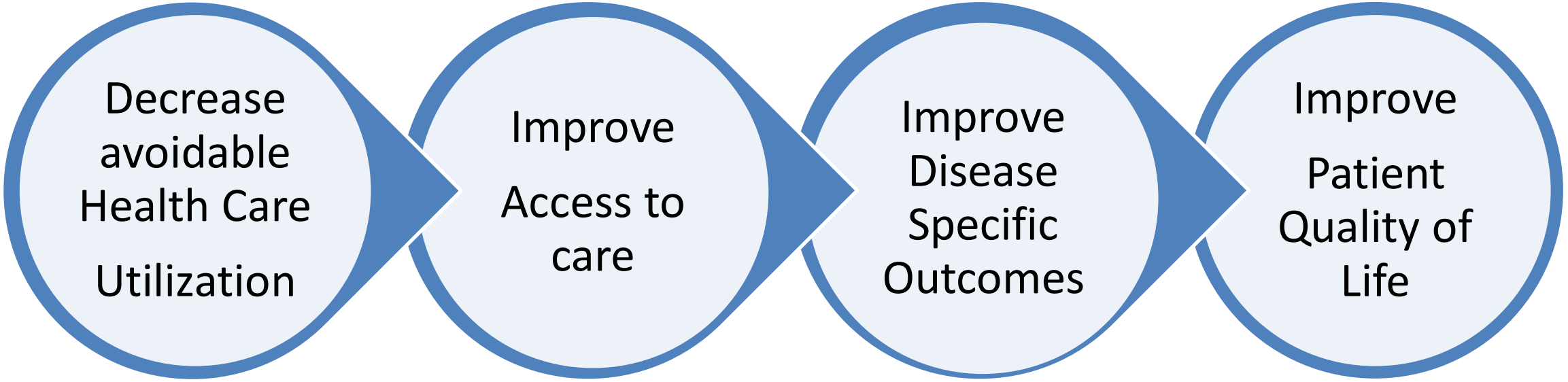
❑ DSRIP Funded

❑ Collaboration III: Asthma & Beyond

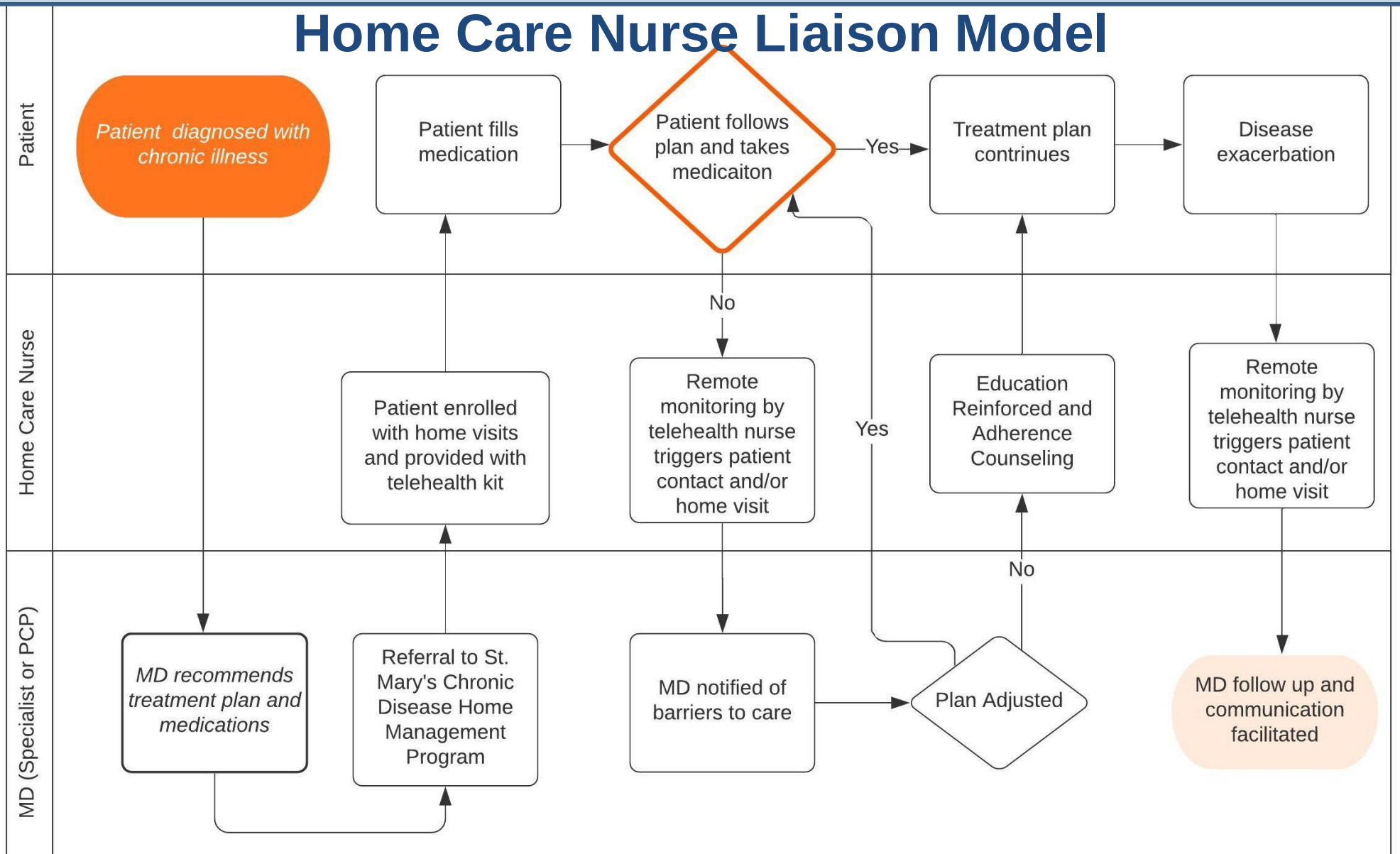
- Expansion of program to monitor other chronic conditions with supportive services

– GI disease	– Dysphagia
– Lung disease	– Seizures
– Developmental Delays	– Obesity with co-morbidity

❑ We Can Do More



Home Care Nurse Liaison Model



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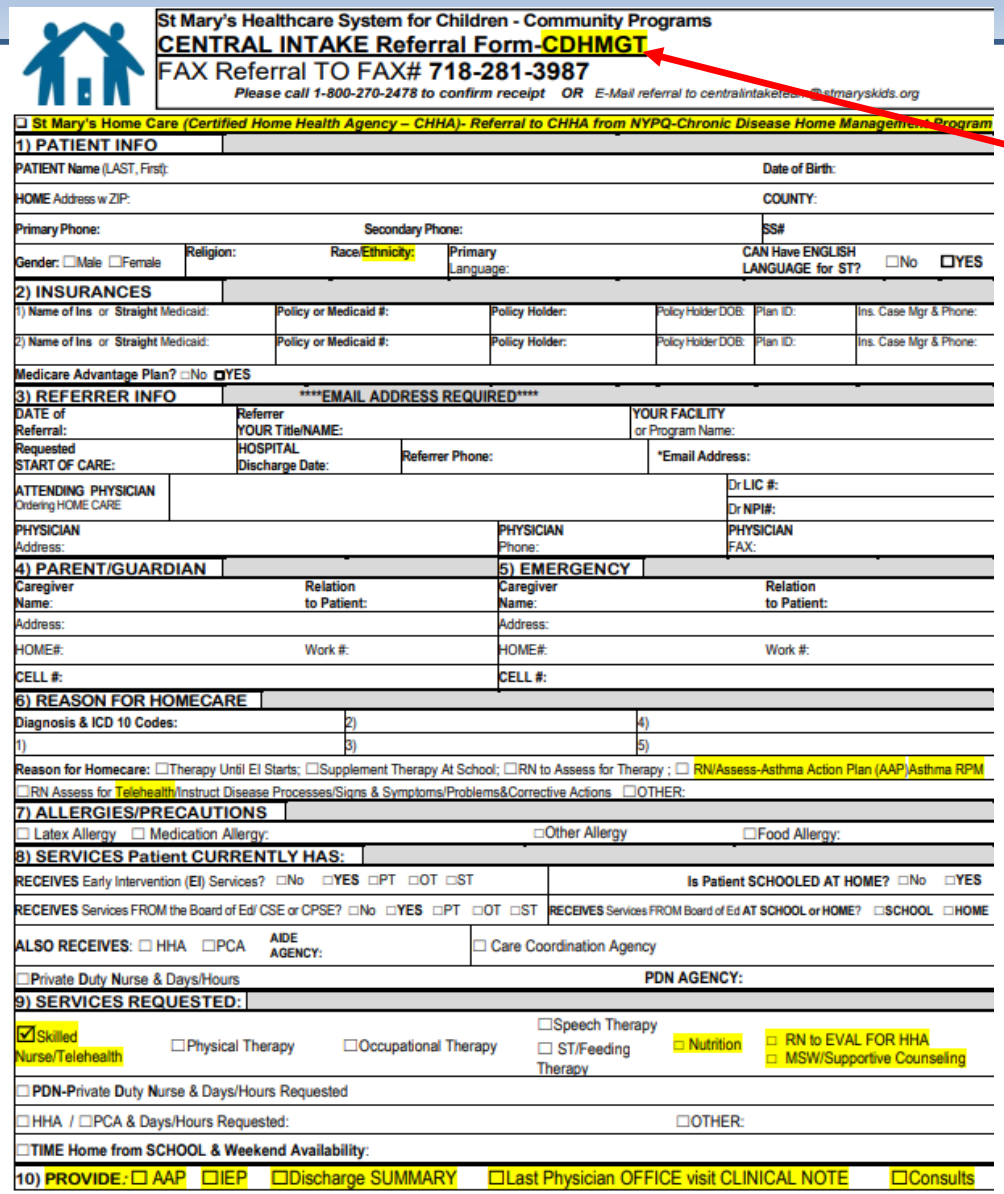


St Mary's Healthcare System for Children - Community Programs
CENTRAL INTAKE Referral Form-CDHMGT
FAX Referral TO FAX# **718-281-3987**
Please call 1-800-270-2478 to confirm receipt OR E-Mail referral to centralintakefax@stmaryskids.org

☐ St Mary's Home Care *(Certified Home Health Agency – CHHA)- Referral to CHHA from NYPQ-Chronic Disease Home Management Program*

1) PATIENT INFO

PATIENT Name (LAST, First): | Date of Birth:
HOME Address w ZIP: | COUNTY:
Primary Phone: | Secondary Phone: | SS#
Gender: ☐Male ☐Female | Religion: | Race/Ethnicity: | Primary Language: | CAN Have ENGLISH LANGUAGE for ST? ☐No ☐YES

2) INSURANCES

1) Name of Ins or Straight Medicaid:	Policy or Medicaid #:	Policy Holder:	Policy Holder DOB:	Plan ID:	Ins. Case Mgr & Phone:
2) Name of Ins or Straight Medicaid:	Policy or Medicaid #:	Policy Holder:	Policy Holder DOB:	Plan ID:	Ins. Case Mgr & Phone:

Medicare Advantage Plan? ☐No ☐YES

3) REFERRER INFO ****EMAIL ADDRESS REQUIRED****

DATE of Referral: | Referrer YOUR Title/NAME: | YOUR FACILITY or Program Name:
Requested START OF CARE: | HOSPITAL Discharge Date: | Referrer Phone: | *Email Address:
ATTENDING PHYSICIAN Ordering HOME CARE | Dr LIC #: | Dr NPI#:
PHYSICIAN Address: | PHYSICIAN Phone: | PHYSICIAN FAX:

4) PARENT/GUARDIAN | **5) EMERGENCY**

Caregiver Name: | Relation to Patient: | Caregiver Name: | Relation to Patient:
Address: | Address:
HOME#: | Work #: | HOME#: | Work #:
CELL #: | CELL #:

6) REASON FOR HOMECARE

Diagnosis & ICD 10 Codes: 1) 2) 3) 4) 5)

Reason for Homecare: ☐Therapy Until EI Starts; ☐Supplement Therapy At School; ☐RN to Assess for Therapy ; ☐ RN/Assess-Asthma Action Plan (AAP)\Asthma RPM
☐RN Assess for Telehealth/Instruct Disease Processes/Signs & Symptoms/Problems&Corrective Actions ☐OTHER:

7) ALLERGIES/PRECAUTIONS

☐ Latex Allergy ☐ Medication Allergy: ☐Other Allergy ☐Food Allergy:

8) SERVICES Patient CURRENTLY HAS:

RECEIVES Early Intervention (EI) Services? ☐No ☐YES ☐PT ☐OT ☐ST | Is Patient SCHOOLED AT HOME? ☐No ☐YES
RECEIVES Services FROM the Board of Ed/ CSE or CPSE? ☐No ☐YES ☐PT ☐OT ☐ST | RECEIVES Services FROM Board of Ed AT SCHOOL or HOME? ☐SCHOOL ☐HOME
ALSO RECEIVES: ☐ HHA ☐PCA AIDE AGENCY: | ☐ Care Coordination Agency
☐Private Duty Nurse & Days/Hours | PDN AGENCY:

9) SERVICES REQUESTED:

☑Skilled Nurse/Telehealth ☐Physical Therapy ☐Occupational Therapy ☐Speech Therapy ☐ ST/Feeding Therapy ☐ Nutrition ☐ RN to EVAL FOR HHA ☐ MSW/Supportive Counseling
☐PDN-Private Duty Nurse & Days/Hours Requested
☐HHA / ☐PCA & Days/Hours Requested: ☐OTHER:
☐TIME Home from SCHOOL & Weekend Availability:

10) PROVIDE: ☐ AAP ☐IEP ☐Discharge SUMMARY ☐Last Physician OFFICE visit CLINICAL NOTE ☐Consults

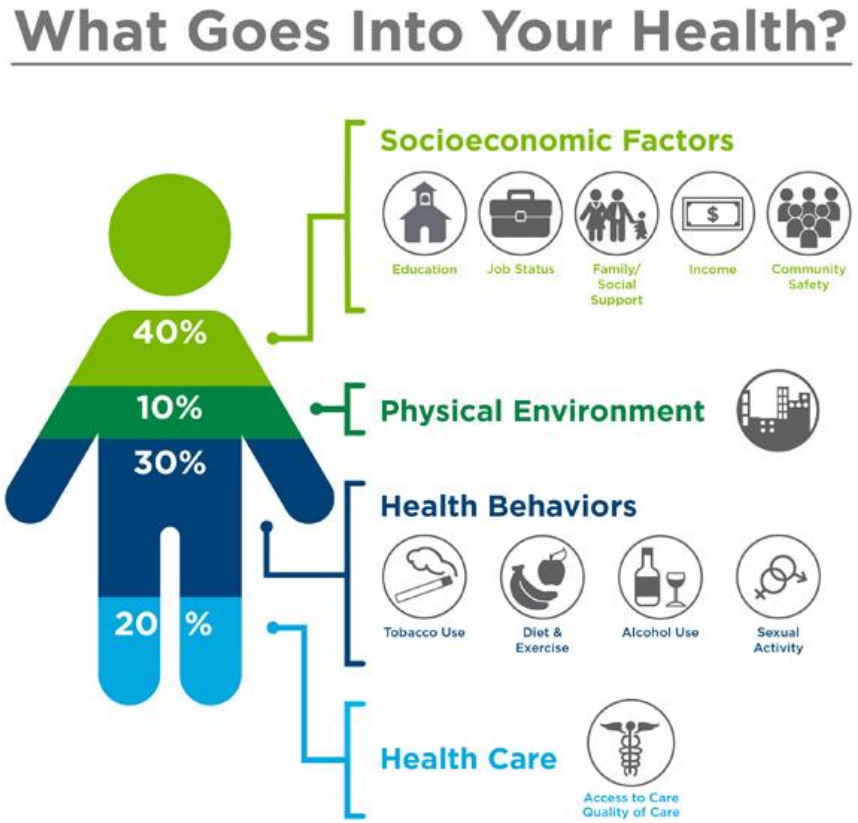
— Thank you for your referral to St. Mary's Healthcare System for Children —

FORM-COMMUNITY PROGRAMS REFERRAL FORM –SAA Version v2013 0924 1 PAGE

- Designed special Intake Referral form designated for specific program
- Educated all Intake staff on how to process
- PDSA – cycles of improvement

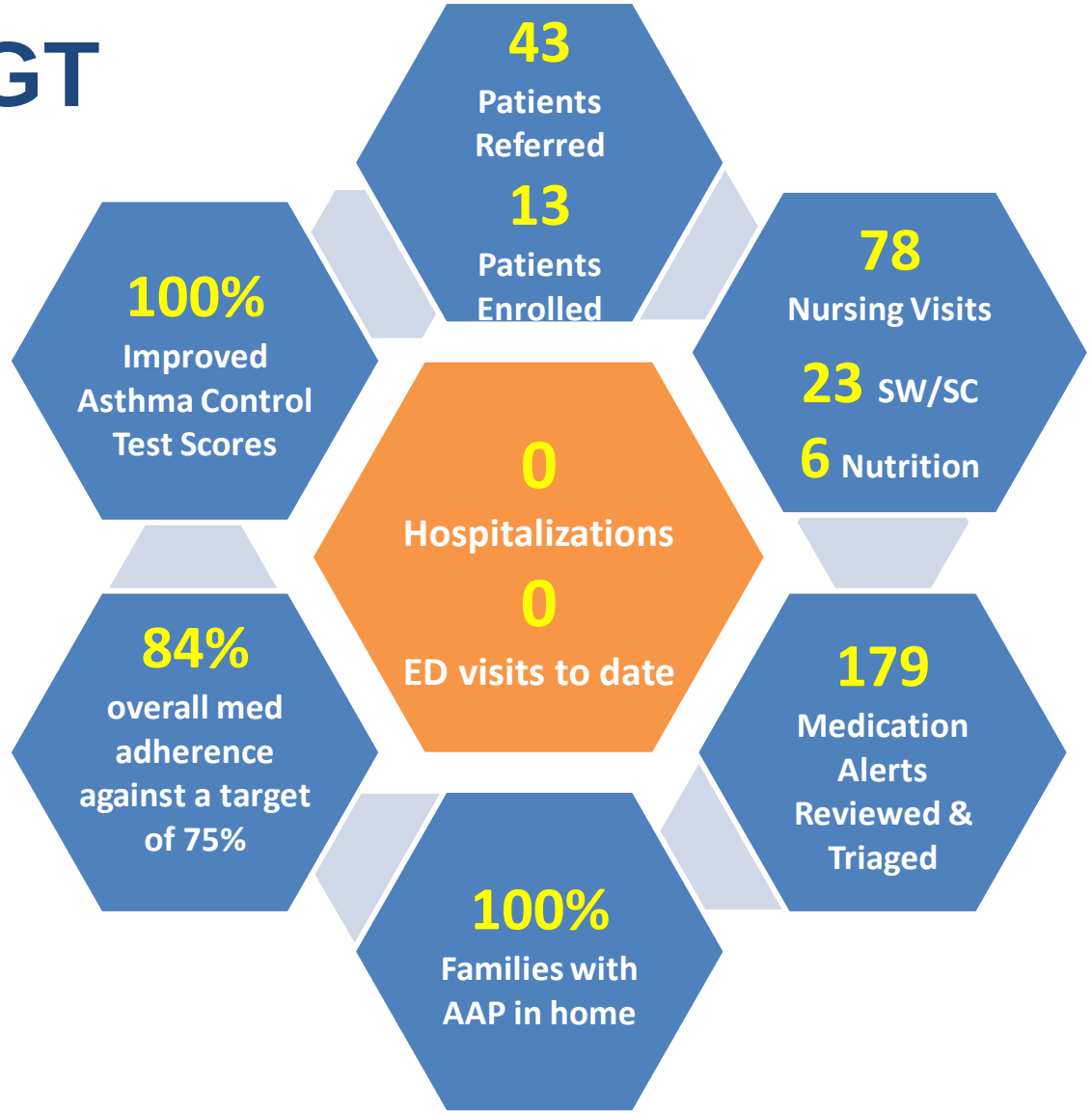
❑ Chronic Disease Home Management Program

- **Hybrid – Virtual + In-Home visits**
  - Tablets + PPE and COVID precautions
  - Remote Patient Monitoring
- **Supportive Counseling**
  - Licensed Clinical Social Worker
- **Nutritional Support by RDs**
  - Healthy Eating Education
  - Activity monitoring
- **"Eyes in the Home"**
  - Telehealth RNs



❑ Collaboration III - CDHMGT

- **April 2021–2023**
- ***Asthma - RPM***
- ***Achievements to Date***



➢ Metrics:

- ED visits/hospitalizations
- Adherence Rates
- Asthma Control Tests
- RPM notifications

❑ CDHMGT Success Story: Leslie

- 10 year old diagnosed with moderate persistent asthma and allergic rhinitis
- Enrolled in RPM for 105 days to date
  - 100% Medication Compliance
  - 0% Rescue Alerts
- Beginning ACT Score of 18
- Improved ACT Score of 26
- 9 Nursing Visits to date/Daily RPM
- Trigger Remediation items provided
- No ED Visits to date
- No Hospitalizations to date

❑ Project Expansion to Chronic Care

- **10** pts enrolled with asthma only (RPM with Smart inhaler)
- **3** pts enrolled with asthma + other chronic illnesses*

  Receiving combined RPM (smart inhaler, scale, pulsox, temp)
- **5** pts enrolled with chronic illnesses from NYPQ aerodigestive clinic

  Skilled nursing visits, care plan adherence and telehealth platform
  - Scale, pulse ox, thermometer
  - SW, Care Coordination
  - Feeding, ST, PT, OT
  - Supportive Counseling for families

*Failure to Thrive, obesity, seizures, dysphagia, developmental delays

St. Mary's Home Care

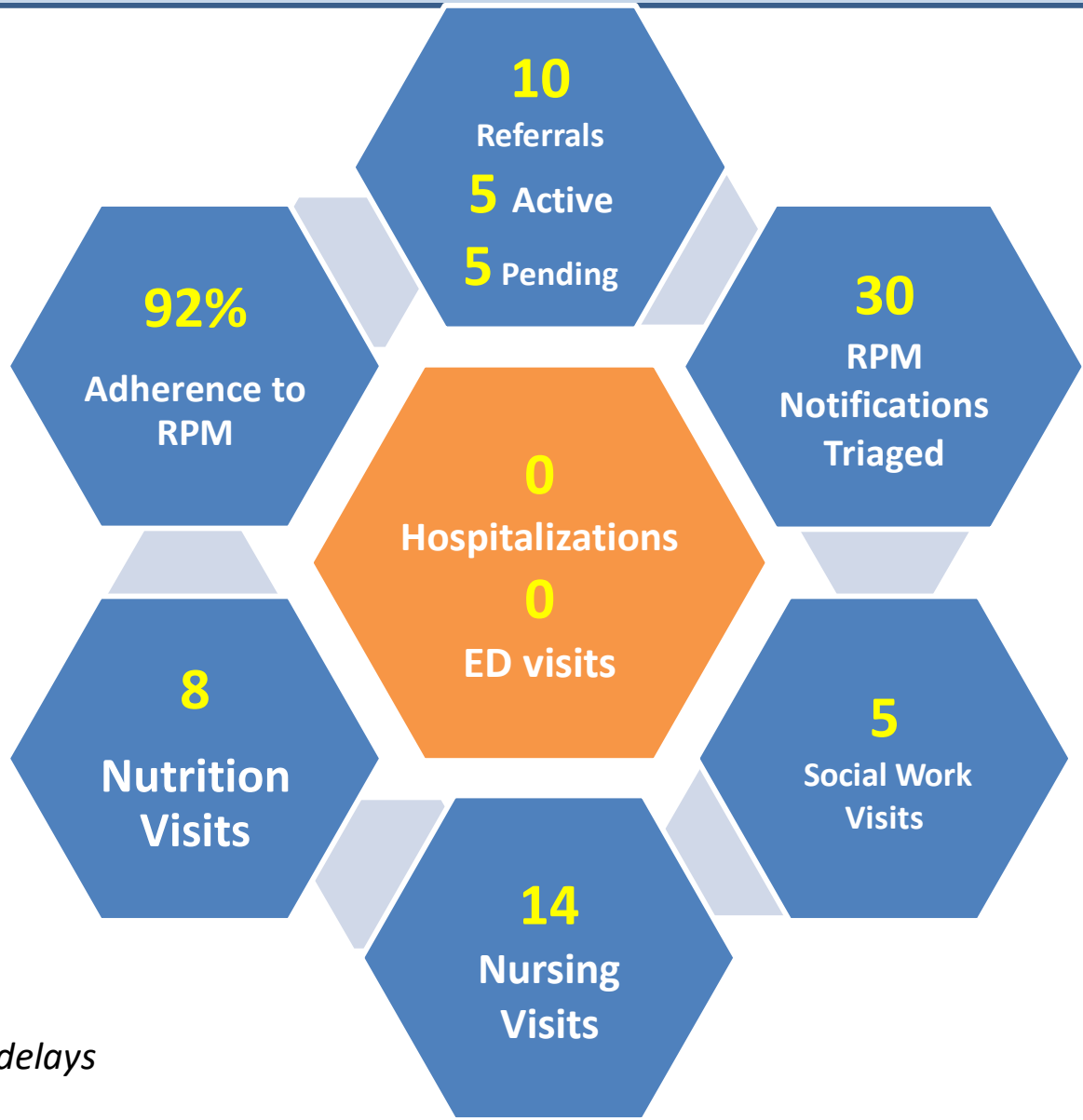
NewYork-Presbyterian Queens

CDHMGT Progress

- April 2021– Sept. 2021
- *Other Chronic Conditions**
- *Achievements to Date*

Metrics:

- ED visits/hospitalizations
- Adherence Rates
- Disease Specific Outcomes
- RPM notifications



**Failure to Thrive, obesity, seizures, dysphagia, developmental delays*

❑ CDHMGT Barriers

CHALLENGES	Solutions
- Patient Refusal	- MD handout and encouragement
- Unable to contact	- Clinic staff referral f/u
- Patient Schedules	- Social Work referrals
- Lack of Insurance	- Grant-funded devices
- Lack of Technology	- IT and MD assists with technology and Rx
- Non-compatible devices	
* Other provider referrals	

❑ Project Expansion: Creating a Medical Home

- **Pediatric Asthma Center Move 11/1/21**
  - Into pediatric clinic at Theresa Lang Children's Center located in NYPQ
  - Expand chronic care interdisciplinary services based in Gen Peds
  - Increase collaboration and CDHMGT referrals from Gen Peds, Neuro, GI for children with chronic illnesses OTHER than asthma

❑ CDHMGT Success – Supportive Counseling/Social Work

- 13-year old patient with asthma, depression, anxiety
- Fell behind on schoolwork during COVID, resulting in fear of entrance to high school
- Supportive counseling visits provided by Licensed Clinical Social Worker
- Patient completed summer school and was accepted into high school of her choice
- Further referrals made to additional community resources for the family

St. Mary's CDHMGT Supportive Social Work Team
Danielle Toto, LMSW, Alicia Velez, SW Program Assistant, Alan Booth, LCSW

❑ Future Directions

- Expand to other providers in NYP network
- Recruit staff with specialized skillsets
- Define disease specific outcomes for other chronic illnesses (vitals, weight, blood glucose, blood pressure, temperature, seizure frequency)
- Identify quality of life or patient experience questionnaire to evaluate program

Health and Quality of Life Outcomes

BioMed Central

Research

Open Acces

The European DISABKIDS project: development of seven condition-specific modules to measure health related quality of life in children and adolescents

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Abstract

Background: The European DISABKIDS project aims to enhance the Health Related Quality of Life (HRQoL) of children and adolescents with chronic medical conditions and their families. We describe the development of the seven cross-nationally tested condition-specific modules of the European DISABKIDS HRQoL instrument in a population of children and adolescents. The condition-specific modules are intended for use in conjunction with the DISABKIDS chronic generic module

❑ Thank you

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