Optimizing Child Health & The Quadruple Aim: A Partnership between an FQHC and Children’s Hospital

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ACHD Annual Meeting
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Framework for Discussion

I. Importance of Quadruple Aim
II. Partnership of an FQHC and a Children’s Hospital
III. Three innovative care models of care achieving quadruple aim measures
IV. Moving from traditional FFS payment systems towards shared savings models
V. Investment in education, research, quality, advocacy and clinical services to align with quadruple aim measures
I. Importance of Quadruple Aim

• Care Team Wellness as a prerequisite for Triple Aim = Quadruple Aim
  – 46% of practicing physicians report burnout\(^1\)
  – Principal driver of provider satisfaction = ability to provide quality care\(^2\)

• How can we move pediatric health care delivery systems towards achieving the Quadruple Aim?
II. Partnership of an FQHC and a Children’s Hospital

- Children’s Hospital Los Angeles + University of Southern California (USC) Keck School of Medicine + CHLAMG
  - Academic General Pediatrics and Subspecialty Clinical Care
  - Teaching Facility- Subspecialty fellowships, pediatric residency, medical student education
  - Research infrastructure with Saban Research Institute, CTSI, USC

- AltaMed Health Services Corporation
  - Largest Independent Federally Qualified Center in US
  - Serves population of >300,000 underserved, uninsured and primarily Latino patients in Los Angeles and Orange County
    - 65,000 children served in Los Angeles by AltaMed
    - Mix of pediatricians, family practitioners and mid-level providers providing pediatric care 46 community clinics in Los Angeles and Orange County
Phases of Relationship with CHLA and AltaMed

Phase I: CHLAMG
Pediatricians Consult in AltaMed Community Clinics
1995

Phase II: AltaMed CHLA General Pediatrics Outpatient Clinic
2005

Phase III: AltaCHLA IPA
2011

Phase IV: AltaMed-CHLAMG-CHLA Model of Care
2017
Phase I: CHLAMG Pediatricians in the Community

• **Phase I (1995-Present)**

  – Academic Pediatric care in FQHC clinics in East Los Angeles—started with 0.4 FTE

  – 2017-18: 20 CHLA pediatricians providing 9.3 FTE pediatric primary care support in FQHC community sites
Phase II: Outpatient Clinic within a Children’s Hospital

- **Phase II (2005-Present)**
  - Establishment of General Pediatrics Outpatient Clinic at CHLA
  - >27k pediatric lives; 12% complex needs population
  - Clinical, Education, Advocacy and Research services in primary care
  - Expansion and integration of onsite specialty care
  - Enhancement of ancillary support services
Phase 2: AltaMed CHLA General Pediatrics Primary & Subspecialty Care Clinic

- Community-based, Federally Qualified Health Centered, Outpatient General Pediatrics clinic located within a Tertiary Medical Center

- AltaMed CHLA Clinic Hours:
  - 7 days per week access
  - 24/7 live person access to nurse/physician triage for all patients

- Ancillary Support Programs:
  - Patient Centered Medical Home
  - Social Work
  - Psychology services
  - Childhood Obesity Group Classes/Lifestyle Redesign & Nutrition Services
  - Newborn Services
    - Lactation Services
    - Home Phototherapy Program
    - Circumcision Clinic
    - Prenatal Classes
  - Incredible Years Parenting Group
  - Immunization Clinics

- Onsite Subspecialty care
  - Allergy & Immunology
  - Optometry
  - Developmental Behavioral Pediatrics
  - Oral Health
  - Gastroenterology
  - Neurology
  - Orthopedics
  - Dermatology
  - Cardiology
  - Pulmonary
  - Genetics
  - Pediatric Dentistry
Phase 3: Delegated Risk Model with AltaCHLA IPA

• Phase III (2011-Present)
  – Blended Capitation model (FFS + Carveouts)
  – Shared risk between FQHC partner and Hospital medical group
    • Risk Arrangement:
      – Professional fee: ED/IP
      – Non capitated labs
      – Subspecialty visits
      – Medications (until stop loss)
      – Non-CCS (Title V) program
Multiple planning meetings between AltaMed, CHLA and CHLAMG leadership over previous 3-4 years with various consultant groups involved

CHLA Enterprise Strategic Plan Refresh FY 2018-2020: January 2017-June 2017

Strategic Plan #3: Optimize Care for Key Populations → CHLA
Board Approval: June 2, 2017

Pediatric Services Joint Venture Agreement: AltaMed, CHLAMG, CHLA
July 18, 2018

AltaMed Leadership Plan: Broaden CHLA and AltaMed Partnership

AltaMed Pediatric Strategic Plan → AltaMed Executive Team Approval: June 12, 2017
III. Three Innovative Models of Care Achieving Quadruple Aim Measures
Model #1: Developmental Screening for Children

Why EARLY INTERVENTION Is So Important

photo credit: hikijgk via photopin cc
Background Information

- Prevalence of Developmental Delay in Children ages 0-5 years has increased 17.1% in past 12 years
  - 6.3% of Hispanic children have developmental delay compared to 2.4% of non-Hispanics (up to 15% in impoverished communities)
  - Often undiagnosed as a result of lower screening rates and lack of parental understanding of diagnostic features

- The American Academy of Pediatrics recommends developmental screening using a validated tool for all children
  - In California, only 14% of children receive developmental screening using these tools
Importance of Recognition of Developmental Delay in Children

• *Inspiration to create path for change:*
  
  • Camilla’s Story
Model #1: Developmental Screening for Children

- First 5 LA: Early Identification of and Referrals to Early Intervention Services for Autism and Other Developmental Delays

- Goal: Increasing developmental screening and referrals for early services for children identified as being developmentally delayed or autistic in underserved communities

- Six Year, $780,000 → April 10, 2014-2020
Well Child Visit Registration 9mos, 18mos, 24mos

Tablet given to family to complete MCHAT-R +/- ASQ-3

Altamed staff to aid completion of screen; language services available upon request

MA collects Tablet; screen results auto-populate and track to NextGen EMR

IT generated algorithms and templates for tracking/database generation

Normal Development

Partial Delays

Developmental Delay

Re-screen with PMD in 1-2 months

- DBP Referrals
- Case Management
- Community Resource Links

Provider/Staff Training

START:

Age appropriate developmental surveillance

TA
Developmental Screening Using Validated Tools

1. Total number of screened children at 6 AltaMed clinic sites = 10,836
2. Total number of referrals made into early intervention services = 1,733*
3. Prevalence of developmental delay in primarily Latino population = 16%
Advocacy & Education for Developmental Screening

1. **Pediatric Academic Societies 2016**: Accepted Poster
2. **Help Me Grow 2016-Present**: Involvement in Leadership Council, Provider Group, Community Outreach Group
3. **AAP Town Hall Meetings 2016-2017**: Educate pediatric providers (Studio City, Santa Monica, Pomona, AltaMed Corporate)
4. **First 5 CA video**: AltaMed media team with First 5 team to create online videos for developmental screenings
5. **AB 11 (McCarty, Bonta, Carillo, Nazarian) 2018**: Assembly health testimony 1/9/2018; accountability for universal screening for Mcal population (CHDP)
6. **Publications to advance knowledge in literature**:
   1. Manuscript #1: 4 year data review for developmental screening
   2. Manuscript #2: Rates of referral by type; linkage timeline to CBR
   3. Manuscript #3: Early Intervention impacts on delay (ASQ-3 comparison)
   4. Manuscript #4: Community based intervention: *Hablamos Juntos Pilot*
Future Efforts

* Based upon our work, we are able to innovate linkage to cost-effective early intervention (Contracting SLP with AltaCHLA IPA for direct services)

* Year 5 & 6 Goals: Hardwire screening at 6+ AltaMed clinic sites with staff led accountability and train-the-trainer modelling; dissemination of data information for policy change
Model #1: Developmental Screening for Children

- **Reduction in Cost**
  (Innovation in early intervention; align with CBO; reduction in education costs)

- **Improved Patient Outcomes**
  (Early Intervention reduces developmental delay; mainstream education)

- **Improved Patient Satisfaction**
  (Families better informed; access to therapy)

- **Satisfied Providers**
  (Recognition of early intervention and impacting patient health outcomes in streamlined way)
Model #2: PCMH for Children with Medical Complexity
Children with Special Health Care Needs (CSHCN) are defined as having or being at increased risk for a chronic physical, developmental, behavioral or emotional condition and require health and related services beyond other children.

- 15% of children in California are CSHCN.
- 77.6% have public health insurance, and most of these children do not receive comprehensive, coordinated medical care in the state of California (**only 38% have access to a medical home**).
- CSHCN account for >80% of pediatric health care expenditures.
Our Family

School

- Bus Driver
- District Coordinator
- Transportation
- Sped Liaison
- Sped Teacher
- 76 ABA therapists
- BCBA
- Sped-Pac

Out-of-district School

City Sped

DESE

Neuropsych
- Speech
- OT/AT

Developmental Assessments

- Private inc.
- Medicaid

Dentist

- Palliative care
- Endocrine
- Genetics
- Cardiology
- G/I
- Ophthalm.
- Ortho

Pediatric specialty Hosp

Pedi Practice

- Referrals, triage, scripts

Specialty Hosp

NEURO

Physiatry

Specialty Pharm

- Local pharmac
- Toileting supplies
- Foot braces

Support

- People
- Friends
- Neighbors

Support groups

- NS
- GLSE

Daughter

Sib. Shops

Sibling Support Network

Blog: Durga's Toolbox

Reps

- Nat'l
- State
- Local

School committee

CHIPRA

LEND

Family Voices
- Arc
- Disability Scoop
- Catalyst Center

List serves

- Mass Advocates
- Mass Families Organizing for Change

Various Orgs

DPH

Adaptive sports coach
- Swim teacher

Town Rec

Comm. Arc

Medicaid
- DDS

PCA

Legal & Financial

- Attorney
- Ed. consultant

Trust & Estate

- Attorney & Planner

Education

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www.durgastoolbox.com
Model #2: Patient Centered Medical Home (PCMH) for Children with Complex Needs

- PCMH = A partnership between pediatric health care professionals and patient families to identify, access and coordinate medical and non-medical services to help a child achieve their maximum potential

- Provides a model of health care service delivery which is:
  - Accessible
  - Continuous
  - Comprehensive
  - Family-Centered
  - Coordinated
  - Compassionate
  - Culturally Effective

- Model of care which is integrated in primary care

- 1450 actively managed children with complex needs/6 FTE case managers

- Coordination of healthcare, community based services; education; mental health; social needs

- Use of case management score algorithm to allocate appropriate support for patient and their families

- Data analytics integration systems to review utilization
Pediatric Patient Centered Medical Home

- Current enrollees: 1450 patient families with CSHCN
  - One hour intake scheduled with each family (Care plan creation)
    - Initial 10 minutes - self-empowerment
    - Care plan creation
    - Goal setting
  - Follow up at least every 6 months (or more depending on situation); 3 month follow up phone calls
  - M-S 8a-7p access to Case Management

The Family contacts their assigned coordinator who works with the Pediatrician for all patient needs

Patient and Family are seen by their Pediatrician

A Referral is made to PPCMH based on Family's Needs; Case Management Score Assessment Completed

An individual care plan is created and All About Me notebook is created

The Clinical Care Coordinator contacts the family and schedules a one hour intake appointment

The Clinical Care Coordinator contacts the family and schedules a one hour intake appointment
Patient Centered Medical Home Utilization Review

- Health Care Utilization Cost Analysis: 1/1/2010-12/31/2015

Average LOS per year before and after PCMH program implementation

<table>
<thead>
<tr>
<th># of days per year</th>
<th>All Patients</th>
<th>High Utilizers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-PCMH</td>
<td>26.3</td>
<td>4.5</td>
</tr>
<tr>
<td>Post-PCMH</td>
<td>35.9</td>
<td>5.6</td>
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</tbody>
</table>

Annual ED Visit Rate Pre and Post PCMH Program

<table>
<thead>
<tr>
<th>Rate of visit per year</th>
<th>All Patients</th>
<th>High Utilizers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-PCMH</td>
<td>1.36</td>
<td>0.81</td>
</tr>
<tr>
<td>Post-PCMH</td>
<td>6.75</td>
<td>0.51</td>
</tr>
</tbody>
</table>
Model #2: PCMH for Children with Complex Needs

Reduction in Cost
(Decreased ED, IP, LOS; RA, CV)*

Improved Patient Outcomes
(Less utilization; increased social & community support)

Improved Patient Satisfaction (Press Ganey > 90%; Medical Home Index)

Satisfied Providers (Less paperwork, improved coordination, allows providers to focus on the medicine)*

*ED= Emergency Department; IP = Inpatient; LOS = Length of Stay; RA = Readmission; CV = Clinic Visit
Model #3: Home Phototherapy
High Bilirubin Level (Jaundice) In Newborn Infants

- Prevalence of Neonatal Jaundice: >50% in newborns
- If severe, leads to poor feeding; lethargy and kernicterus
How much of a problem is this?
Model #3: Home Phototherapy

- Elimination of disparities in care for private pay vs. publicly insured patients
- Home Lactation & Phototherapy services contracted January 2016
- Pilot: 1/1/2016-4/1/2018 → 40 newborns treated with home phototherapy (mean treatment length of 2.5 days)
- Cost Implications: N= 40

<table>
<thead>
<tr>
<th>Total Cost of Home Phototherapy</th>
<th>Total Cost of ED/IP for mean 2.5 day admit* (Delegated risk)</th>
<th>Total Cost of ED/IP for mean 2.5 day admit (Full risk)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$12,144.80</td>
<td>$14,969.20</td>
<td>$214,520.00</td>
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</table>

- In-home lactation support and daily communication with targeted ACES screening in an underserved population
- Increased satisfaction for patient families and providers
Model #3: Home Phototherapy

Reduction in Cost
(Diminished ED, IP)

Improved Patient Outcomes
(Promotes breastfeeding; ACES screening; allows integration of psychosocial supports; reduction in kernicterus)

Improved Patient Satisfaction (report increased satisfaction being home)

Satisfied Providers (Eliminates disparities in care, improved quality; insight into patient’s home to garner increased services)
Merit Based Incentive Payment System (MIPS)

- **Quality** 50% of total score in the first year
- **Advancing Care Information** 25% of total score in the first year
- **Clinical Practice Improvements** 15% of total score in the first year
- **Cost/Resource Use** 10% of total score in the first year
IV. Moving from traditional FFS payment systems towards shared savings models

- **MACRA (MediCare Access and CHIP Reauthorization Act 2015)**
  - Replaces Sustainable Growth Formulas with Valued Based Care
    - **MIPS (Merit-Based Incentive Payment System)**
    - **APM (Alternative Payment Method)**

- **Value Based Reimbursement Opportunities**
  - Quality Programs
  - Transitional Care
    - Reimbursement for coordination of care from outpatient within 2 business days of hospital DC followed by in-person visit 7-14 days
  - Chronic Care
    - Reimbursement for incremental time managing patients with chronic disease

- **Opportunities for insurers to pay PMPM** (per member per month) to health systems building clinically integrated networks (demonstrating coordination of care activities)
Moving From FFS Delegated Risk to Shared Savings Models

• Team Based Care is the heart of Value Based Care → Quadruple Aim

• Moving from FFS towards Shared Savings = “Simple” Math

\[
(\text{FFS} - \text{Cost Reduction for FFS} - \text{FFS Direct Program Cost}) + \text{Shared Savings Potential}
\]
IV. Moving from traditional FFS payment systems towards shared savings models

• Highest Impact Health Care Delivery Operations Leading to Shared Savings:
  – Nurse/Physician Telephone Triage Line Access
  – Population Health Management Tools
  – Care Managers to Support Patients and Providers
  – Chronic Care Management

• Data Integration & Analytics
  – Review current state of your health care delivery practice
  – Collection of data with integration (clinical, patient, hospital, community) to understand practice management
Data Integration for Predictive Modelling
AltaMed-CHLAMG-CHLA Model of Care

- Evolution of the Partnership of CHLA, CHLAMG and AltaMed
- Joint Leadership Council & Partnership Operating Structure
- Investment in caring for underserved populations and strategically collaborating in community settings to optimize care
- Expansion and growth of market share opportunities to enhance quality care for the most vulnerable youth
- Pursue data driven measures to potentially venture into shared savings models
- Advocate for improved models of care for our pediatric population including CSHCN
V. Investment in education, research, quality, advocacy and clinical services to align with quadruple aim measures

- Consider investing in models which promote Quadruple Aim
- Advocate to define new healthcare reimbursement measures
- Invest in education & training about healthcare delivery systems (creating a pipeline)
- Support research, quality and clinical initiatives aligned with the quadruple aim
- Reduction of health disparities to promote child health wellness
Thank you!
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  - Juan Espinosa, MD
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  - Jolene Collins, MD
  - Larry Yin, MD
  - Alex Van Speybroeck, MD
  - Suzanne Roberts, MD
  - Michelle Thompson, MD
  - Fasha Liley, MD
  - Alexis Deavenport, PhD
- Kathryn Smith, RN, DrPH
- AltaMed Health Services Medical Informatics Team—Frank Lin
- Yui Weng, MD
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  - Beanet Solorzano, LVN
  - Abraham Gonzalez, LVN
  - Vanessa Gamez, LVN
  - Gracie Corona Arias, MA
  - Leslie Figueroa, MA

- Multidisciplinary Team
  - Palliative Medicine Team
  - Muriel Barton, SW
  - Nutrition team
  - PPCMH case management team
  - Primary care pediatricians
  - Pediatric Subspecialists
  - Community partner agencies: CCS, regional center; DCFS, LAUSD, etc.
  - Thank you to our patients and families who allow us to care for them