Patient Centered Medical Home and The Future with Managed Care
Discussion Points – Patient Centered Medical Home

1. Who we are and what we do
2. What is a Patient Centered Medical Home (PCMH) and Why is it Important
3. Benefits of the PCMH Model
4. Outcomes to date at The Center for Discovery
5. Next Steps
6. Case Studies

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The Center for Discovery and Article 28 Clinic

Serving some of the most complex, medically fragile developmentally disabled children and adults in New York State

By the numbers

314 Residential  290 State Education Day School  588 Article 28 Clinic patients

Services offered through the Article 28 NCQA Level III recognized Clinic

Multidisciplinary Diagnostic Evaluations  Neurology and Video EEG Telemedicine Program
Developmental Behavioral Pediatrics  Psychiatry and Medication Management
Orthopedics  Psychiatry, Orthotics, and Botox Clinics
Primary Care Medicine  Podiatry
Nutritional Evaluation and Therapy  Gastroenterology
Dental  Capsular Endoscopy procedures
Family and Child Counseling  Fiberoptic Endoscopic Exam of Swallowing
Behavioral Management Training  Cardiology and EKGs, Cardiac Monitoring
Pulmonology  Audiology and hearing aid clinic
Social Skills Groups  Ophthalmology
Sensory Integration and Praxis Testing  Psychology
Central Auditory Processing Testing  OT, PT, Speech Pathology
Assistive Technology Evaluations  Eating problems program
What We Do at The Center for Discovery

- Residential
- Educational
- Dayhab
- Clinic
- Other Privately Funded Programs

% of dollars spent per program
What is a Patient Centered Medical Home?

- The medical home, aka - the Patient-Centered Medical Home (PCMH), is a team-based health care delivery model led by a physician, P.A., or N.P. that provides comprehensive and continuous medical care to patients with the goal of obtaining maximized health outcomes (American College of Physicians) (American Academy of Family Physicians).
Patient Centered Medical Home Model

Why it’s particularly important for the children and adults with severe and complex problems:

• Unique and small subset of the population with the most complex and multiple set of problems
• Typically cannot self-advocate because of limited intellectual functioning and many non- or limited-verbal abilities
• Complex conditions require a multitude of subspecialty care and care coordination
• Parent(s) is usually the “case manager” and often exhausted by care coordination efforts
• Many general practice physicians lack training to handle complexity and interaction of multiple conditions
• Subspecialists typically in different locations and lack time to coordinate with other physicians

*When not considered: medical care can be poor, disjointed, often unnecessary, and very expensive*
And, the problem is not going away...

<table>
<thead>
<tr>
<th>One Generation Ago</th>
<th>Today</th>
<th>Challenge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individuals with severe disabilities died before</td>
<td>More than 90% survive to adulthood</td>
<td>This first generation of complex, older individuals require intensive supports</td>
</tr>
<tr>
<td>reaching maturity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Babies with very complex problems died at birth</td>
<td>Advancement in medicine, most are surviving the birth process and entering the DD world</td>
<td>In need of highly specialized care</td>
</tr>
</tbody>
</table>

The problem of care is **getting increasingly complex** for this group – in New York State:

**35% of children with DD have four or more co-occurring chronic conditions** including seizures, GI problems, mental health, neurological and chronic respiratory problems. Many have additional complex problems related to specific syndromes and or degenerative diseases.

*(NYS DOH SPARCS data Jan 2012)*
More Problems: Autism on the Rise

HARVARD STUDY

Large Burden of Comorbidities in ASD Requires Broad Multidisciplinary Management

In a study of co-morbidities for 14,000 ASD patients in the Harvard system under the age of 35, the authors concluded:

“The comorbidities of ASD encompass disease states that are significantly overrepresented in ASD with respect to even the patient populations of tertiary health centers. This burden of comorbidities goes well beyond those routinely managed in developmental medicine centers and requires broad multidisciplinary management that payors and providers will have to plan for.” [emphasis added]

Source: Kohane IS et al., (2012), The Co-Morbidity Burden of Children and Young Adults with Autism Spectrum Disorders. PLoS ONE 2012 (open access)
And, the problem is not going away...

“Roughly 30% or $700 billion of the $2.5 trillion in annual healthcare spending in the U.S. is estimated to be unnecessary”

2009 American Journal of Managed Care 15 (9), e71-e87

Controlling healthcare costs and quality of care is paramount in today’s current economic environment
Why Patient Centered Medical Home is a Critical First Step in Quality Care and Cost Containment

• Centralized Care – central primary care doctor with case coordination/management

• Patient Centered – increased quality time with one primary practitioner, care is relationship-based, which requires understanding the whole person and their goals

• Comprehensive and coordinated care – all doctors including all subspecialists report in to the primary care doctor with Electronic Medical Records (EMR)’s to help facilitate interactions

• Increased and Expanded access to care – primary care doctor establishes a network of subspecialists who are trained to assess and treat those individuals with developmental disabilities with expanded access times

• Improved health care outcomes – can better anticipate problems and treat more quickly

• Improved patient and family satisfaction – better care, less stress on family, healthier person

• Controlled costs – avoids unnecessary medical tests and procedure, decreases Emergency Room (ER) visits, decreased Length of Stay (LOS) in Hospitals
PCMH at The Center for Discovery

Outcomes with data, data, data, data...

PROS
- Decreased hospitalizations
- Decreased ER visits
- Decreased specialized tests/visits
- Improved access to information and data for more thoughtful and thorough analysis leading to better care
- More timely consultations and referrals
- Improved satisfaction and quality of life for patient and family

CONS
- Increased amount of time required for meetings to be educated about Model
- Training of physicians on EMR takes time and patience
- Data analysis requires increased expertise and effort
- Patient support and non-billable follow-up time
- Much of the effort and additional support staff can equate to lost revenue
The Center for Discovery Comparative Data

2010 NYS SPARCS Data lists the following acute care per diem rates for children with a DD, Cerebral Palsy and varying degrees of medical complexity who are hospitalized:

Child <21 CP                                                                   $6123.98/day per child
Child <21 CP + 1 co morbidity                                      $6653.73/day per child
Child <21 CP + 4 co morbidities                                    $8277.05/day per child

At THE CENTER FOR DISCOVERY post the implementation of the PCMH Model:

<table>
<thead>
<tr>
<th>Hospitalizations</th>
<th>Individuals</th>
<th>Days</th>
<th>Medicaid Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>64</td>
<td>44</td>
<td>628</td>
</tr>
<tr>
<td>2011</td>
<td>49</td>
<td>27</td>
<td>361</td>
</tr>
<tr>
<td>2012</td>
<td>50</td>
<td>31</td>
<td>282</td>
</tr>
</tbody>
</table>

Over the past 2 years the reduction in acute care hospital days from 628 to 282 represents a reduction of 346 acute care days with a Medicaid average cost/day of $5522.00 (conservative estimated cost).

The Reduction in cost with the decrease in acute care hospital days represents a conservative

Medicaid savings of $1,910,612.00.
The Center for Discovery Comparative Data

6 Year Review – NCQA PCMH implemented during the 2011 and 2012 years

<table>
<thead>
<tr>
<th>Year</th>
<th>Hospitalizations</th>
<th># of Individuals</th>
<th>Hospital Days</th>
<th>Average LOS</th>
<th>ER/U/C Visits</th>
<th>% ER Visits Resulting in Hospitalization</th>
<th># Admitted</th>
<th># of Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>87</td>
<td>33</td>
<td>556</td>
<td>6.4</td>
<td>162</td>
<td>44%</td>
<td>72</td>
<td>1</td>
</tr>
<tr>
<td>2008</td>
<td>76</td>
<td>31</td>
<td>607</td>
<td>7.98</td>
<td>104</td>
<td>28%</td>
<td>29</td>
<td>0</td>
</tr>
<tr>
<td>2009</td>
<td>79</td>
<td>57</td>
<td>579</td>
<td>7.32</td>
<td>139</td>
<td>40%</td>
<td>56</td>
<td>1</td>
</tr>
<tr>
<td>2010</td>
<td>64</td>
<td>44</td>
<td>628</td>
<td>9.81</td>
<td>140</td>
<td>27%</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>49</td>
<td>27</td>
<td>361</td>
<td>7.36</td>
<td>96</td>
<td>31%</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>2012</td>
<td>50</td>
<td>31</td>
<td>282</td>
<td>5.39</td>
<td>135</td>
<td>26%</td>
<td>36</td>
<td></td>
</tr>
</tbody>
</table>
Case Study

Acute Care Utilization Review Summary Pediatrics 2007-2012 Center for Discovery
The Center for Discovery

What we are focused on:

• Educating doctors and other service providers – sharing quality and cost data

• Developing a **Specialty Hospital to avoid costly ER visits and Hospitalizations** and to decrease the LOS in the hospital for both the very medically fragile and those with complex forms of autism – and repatriate out-of-state high cost users (e.g., ventilator patients)

• Building a supportive network of physicians/hospitals in the region and in NY Metro area

• Evaluating our efficiencies and inefficiencies – adding Telemedicine capacity and expanding other needed high use services, e.g., dental sedation

• Implementing the Transitional Care Model – for post discharge care and support

• Re-evaluating our EMR system

• Prioritizing eligible children not currently receiving coordinated care and assisting them to get services
The Center for Discovery

What we are focused on con’t:

Evaluating all of our costs per individual – need to ensure that Managed Care benefits will be comprehensive and include the full range of services needed to support this complex population (acute care – prescription drugs; clinic visits including physician, lab and x-rays; ER; Hospital inpatient)

3 Case Summaries of Acute Care Costs

Case of G: 16 months cost = $1,361,094.00
($1,020,820.50 annual)

Case of A: 36 months cost = $2,469,495.00
($823,165.00 annual)

Case of K: 36 months cost = $1,587,911.20
($529,303.73 annual)
A CASE STUDY: G
(The Cost of Care for Medically Fragile Developmentally Disabled Children)

G, is a 16-year-old boy with MeCP2 Duplication, Hypotonic quadriparesis, severe cognitive impairment, gastroesophageal reflux disease s/p g-tube placement and Nissen, seizure disorder – Lennox Gastaut type, central hypocortisolism (due to partial septo-optic dysplasia), hip dysplasia s/p pelvic osteotomies, s/p spinal stabilization surgery for scoliosis, Obstructive Sleep Apnea, and reactive airway disease, who has been a resident of The Center for Discovery for nine years.

G has had numerous hospitalizations for pneumonia, hypoxia, exacerbation of reactive airway disease, and a medically refractory seizure disorder.

Between 2010 and 2011, G underwent a tracheostomy and needed acute in-hospital rehabilitation to wean him from a ventilator. During that time, he had multiple admissions and readmissions to the Pediatric Intensive Care Unit (PICU) at Westchester Medical Center. He was hospitalized on and off for 16 months with prolonged PICU stays and rehabilitation at Blythedale Children’s Hospital.
Cost of Acute Care for 2010/2011: $1,061,094.00
Medication/Supplies cost: $300,000.00
A CASE STUDY: A

A is an 18-year-old boy diagnosed with Cerebral Palsy, seizure disorder, reactive airway, COPD with recurrent bronchitis, hypothermia, post-tracheostomy 5/20/08, cardiac arrhythmia, GERD, gastroparesis, post-gastrostomy with Nissen 7/15/98, infusaport removed 8/09, post-internal jugular vein thrombosis, hydronephrosis, recurrent UTI, Herpes encephalitis, recurrent dermatitis, eczema, progressive scoliosis, kyphoscoliosis, and bilateral hip subluxation (not candidate for surgery at this time). A is currently being evaluated for a possible pacemaker due to bradycardia.

A had thirteen emergency room visits in 2011 due to respiratory distress, sepsis and seizures, which resulted in eight hospitalizations for a total of 65 days. In 2012, there was one 10-day hospitalization for respiratory failure and one emergency room visit.
### Figure 1- A

<table>
<thead>
<tr>
<th>SERVICE</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinic Visits</td>
<td>39</td>
<td>59</td>
<td>61</td>
<td>$34,185</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>($215.00 per visit)</td>
</tr>
<tr>
<td>Emergency Room Visits</td>
<td>16</td>
<td>13</td>
<td>14</td>
<td>$129,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>($3000.00 per visit)</td>
</tr>
<tr>
<td>Hospitalizations</td>
<td>11</td>
<td>8</td>
<td>7</td>
<td>$2,160,310</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>($8,277.05 per day cost)</td>
</tr>
<tr>
<td>Days in the Hospital</td>
<td>14</td>
<td>65</td>
<td>53</td>
<td>$2,324,495.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Medication Cost: $ 145,000.00</td>
</tr>
</tbody>
</table>
A CASE STUDY: K
(The Implementation of the Transitional Care Model for Medically Fragile Developmentally Disabled Children)

K is a 15-year-old boy diagnosed with Cerebral Palsy, microcephaly, spasticity, meconium aspiration, seizure disorder, reactive airway, chronic bronchitis, recurrent aspiration pneumonia, coagulopathy factor intrinsic/extrinsic (diagnosed after massive GI bleed), hypertension, hip dysplasia, post spinal stabilization 10/21/11 for 90 degree curve, cortical visual impairment, G-tube dysfunction with umbilical hernia and right inguinal hernia repair, and s/p adenoidectomy.

In 2011, K had one scheduled surgery, twelve emergency room visits due to respiratory distress, pneumonia, seizures which resulted in six hospitalizations for a total of 63 days. In 2012, K was hospitalized due to aspiration pneumonia for 4 days. (Figure 1).
### Figure 1- K

<table>
<thead>
<tr>
<th>SERVICE</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>Totals:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinic Visits</td>
<td>39</td>
<td>62</td>
<td>64</td>
<td>$35,475</td>
</tr>
<tr>
<td>Emergency Room Visits</td>
<td>8</td>
<td>12</td>
<td>5</td>
<td>$75,000</td>
</tr>
<tr>
<td>Hospitalizations</td>
<td>6</td>
<td>6</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Days in the Hospital</td>
<td>85</td>
<td>63</td>
<td>16</td>
<td>$1,357,436.20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(15 days for scoliosis surgery)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3 year Acute Care Costs: $1,467,911.20  
Medication Cost: $120,000.00
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Summary Questions

1. How will individuals with the most severe and complex conditions be addressed through managed care;

2. Will managed care organizations understand the distinction between the acute care needs and the long term service supports required for this population, and how will they set a capitated rate;

3. Who will administer managed care organizations; and,

4. How will the data be managed to ensure timely and accurate feedback?