The Future of Pediatrics: Quality, Safety and Workforce Challenges

The Jönköping Academy for Improvement of Health and Welfare
April 21, 2010

Paul V. Miles, MD
Senior Vice President for Maintenance of Certification and Quality
What I am going to talk about

- Trends in the growth and scope of pediatrics as a discipline

- Healthcare is in the middle of a profound revolution related to quality and safety of care. There is a professional imperative that physicians and healthcare teams measure and systematically improve quality of care.

- The impact of the quality revolution on patient care, training, research and professional development in children’s healthcare.

“Every child treated is child studied”
Pediatric Workforce Trends

• The number of pediatricians is growing
• There are not enough pediatric subspecialists
• Subspecialty care is becoming more fragmented and specialized (now 20 areas of subspecialty care)
• There is a geographic mal-distribution of pediatricians
• The majority of US pediatricians in training are women
Total # of Certified Pediatricians

# of Certified Pediatricians

0 10000 20000 30000 40000 50000 60000 70000 80000 90000 100000

The number of pediatricians trained each year continues to increase.

For the past 15 years the percent of pediatricians becoming subspecialists has continued to increase.
Relative Distribution of ABP Emergency Medicine Diplomates By State
(total Diplomates ever certified as of 12/31/09)

Physician-to-Child Ratio (per 100,000 children)

- Black: 3.2 – 9.8
- Green: 2.2 – 3.2
- Blue: 1.3 – 2.2
- Light Blue: 0.7 – 1.3
- Light Grey: 0.0 – 0.7

Note: The population of children is based on the US Census Population Estimates as of July 1, 2008, and includes all children under the age of 18. The number of Diplomates includes only specialists under the age of 66 with known addresses.
Pediatric Workforce Trends (Cont.)

• Fewer general pediatricians are caring for hospitalized patients

• Family physicians are seeing fewer children

• Pediatric nurse practitioners are not replacing pediatricians

• There appears to be an interest internationally in the US model of general and subspecialty pediatric training

“Every child treated is child studied”
Training Pediatricians for the 21st Century

• Greater focus on teaching students how to learn and be responsible for their own professional development

• Offering earlier opportunities to choose a career path

• Competency and outcome based education

• Focus on multiple competencies beyond medical knowledge

• Formal testing of educational innovations before widespread implementation

• Focus on patient centered care and multidisciplinary teams

“Every child treated is child studied”
Training Pediatricians for the 21st Century

Some new efforts:

• Innovation and Improvement in Pediatric Education (IIPE)

• “Milestone” project to assess pediatric junior doctors progress

• Fourth year of medical school project – earlier career choice

• QI fellowships

• Integrated quality program initiative (how do we bring together hospital quality efforts and pediatric department efforts to address patient care, education, research and career development?)

ABP Fellowship requirements
Quality and Safety in Pediatrics

- There has been a significant spread of quality improvement in the past five years in pediatrics
- Patient safety has been slow to change but is gaining momentum
- Competence in quality improvement and patient safety are now required of all pediatricians in training and in practice
- By 2016 every pediatrician will have to show that they can measure and improve their quality of care
- There is a major effort to integrate electronic medical records with quality improvement and national registries

“Every child treated is child studied”
Quality and Safety in Pediatrics (cont.)

• There has been a significant increase in the development of national pediatric subspecialty quality improvement collaboratives using national registries

• Pediatrics is a leader in quality improvement and safety in the US healthcare system and the pediatric organizations have supported and led these efforts

• There is increased pressure to measure physician performance and reduce costs by paying less or sanctioning poor performance

• Pediatric hospitals will not be paid for medical errors or preventable complications (“never” events)

    “Every child treated is child studied”
World’s highest standard of living

- There’s no way like the American way...

- Drawing can not be shown because of copyright

The right care to the right patient at the right time, every time
Increasing Access: at What Cost?

*(Image of a chart showing the sharp climb in health spending.)*

Massachusetts spends 33 percent more per person than the national average, up from 23 percent in 1980.

*Sources: Alan Sager, Boston University School of Public Health, analysis of health spending data compiled by Centers for Medicare & Medicaid Services*
Variation
Medicare Reimbursement per Enrollee

Higher spending is not associated with better outcomes
Spending patterns begin in residency training
Value Based Purchasing

“How can the best health care in the world cost twice as much as the best health care in the world?”

….Elliot Fisher – Dartmouth Atlas
1. Accountability for quality, cost and capacity

2. Better evidence, better performance measures

3. Payment reform
Payments per Enrollee Adults vs. Children

Medicare

Medicaid

Data are from the Dartmouth Atlas Project.
Variation in Children without Health Insurance

Children 17 and below without health insurance (Percent) – 2007

KIDS COUNT Data Center, www.kidscount.org/datacenter
A Project of the Annie E. Casey Foundation
Flexner Revolution

“I am sorry for you, young men (and women) of this generation. You will do great things. You will have great victories, and standing on our shoulders, you will see far, but you can never have our sensations. To have lived through a revolution, to have seen a new birth of science, a new dispensation of health, reorganized medical schools, remodeled hospitals, a new outlook for humanity, is not given to every generation.”

…Sir William Osler
Quality in Healthcare

“Best Possible Science” + “In the context of what a particular patient wants and needs” → Quality

(Treat the body) (Treat the soul) (IOM dimensions of Quality)

Reliable care involves both (Six Core Competencies)

Paul Batalden
System-based Practice
A Profound Shift in Healthcare

Care delivered by individuals to care delivered by teams in complex systems

What is the unit of accountability?
Physician Variation

Variation in Preference-Sensitive Care, Typified by Elective Surgery, Reflects Idiosyncratic Practice Style, Usually Independent of Capacity

With that much variation, they can’t all be right....Jack Wennberg
Demands (Opportunities) for Physicians to Demonstrate Quality of Care

- Professional obligation
- Maintenance of Board Certification
- Career development/credentialing
- JCAHO
- Maintenance of licensure
- Malpractice
- Pay for performance – value based purchasing
A Profound Change: Outcome Based Medicine

“I Trust you, but..”

“Show me the Data”
Inspection
(Regulation)

Looking for Bad Apples
(Sanctioning performance that fails to meet minimal standards)
Improvement (Professionalism)

Improving Good Apples
(Focusing change on the entire distribution)

Before

After

Higher Quality

Mean performance before change

Mean performance after change

Quality Benchmark

Number of providers at particular quality level

ABP standard
In the first 6 months, 29 children’s hospitals reduced infection rates in the PICU by nearly 70 percent by adhering to a rigid set of evidence-based practices shown to prevent infections in children.

51% improvement: 85 lives saved, over 850 infections prevented, $25 million saved over first 30 months. Now with 62 units
Reduced Variation and Improved Outcomes
Cystic Fibrosis Foundation
Quality Improvement Initiative

60 CF Centers, 13,000 patients, have participated
55% of all CF patients in the US
Goal: Speed rate of improvement in CF care
Cystic Fibrosis Foundation Quality Improvement Initiative
Median Predicted Survival Age, 1994-2007

Predicted survival improves from 27.7 years to 28.6 years

First CFF Center reports reveal variability

CFF QI Grant program

CFF National Quality Initiative

Predicted survival improves from 28.6 years to 37.4 years

898 Lives
Subspecialty Collaborative Improvement

- GI – Inflammatory Bowel Disease*
- Critical Care – Catheter Associated Blood Stream Infections*
- Hematology/Oncology – Line infections
- Pulmonology – Cystic Fibrosis*
- Endocrinology – CF Related Diabetes
- Neonatology – Multiple topics*
- Cardiology – Hypoplastic Left Heart*
- Rheumatology – JRA
- Pediatric Emergency Medicine – Pain Management
- Nephrology – Dialysis Catheter Associated Infections

* Approved for MOC Part 4 credit
Improving Care for Children

- Give clinical teams access to real time data
- Give them knowledge and coaching on how to improve care (Improvement Science)
- Provide the infrastructure for local and collaborative multisite improvement
- Encourage multidisciplinary teams including parents and the community (population focus)
- Align incentives
- Care will improve, costs will go down: physicians and other providers are not a barrier
- “every child treated is a child studied”
HIT Meaningful Use
By 2015: Achieve minimum levels of performance on quality, safety and efficiency measures

Key question: In the near future will optimum quality and safety in healthcare be dependent upon electronic health information management?

Answer: Yes, access to real time process and outcome data is essential on both an individual patient and population basis (single data entry, multiple use)

Jim Weinstein
Ten Ways Your Practice Will be Different From Mine

- Outcome driven (focus on quality)
- Population based (increasing diverse population)
- Interdisciplinary (Medical Home: including parents)
- Major focus on children with special health care needs
- Electronic and technology based (shared real time data)
- Part of a large system linked to a children’s hospital
- Collaborative practice (local, regional and national)
- Broad use of telemedicine
- Predictive and longitudinal care (genetics)
- Outcome based education – Life long professional development (MOC) that incorporates simulation
- Maybe as good as Sweden!
Inequality and Ill Health

Index of Health and Social Problems

WORSE

BETTER

LOW

Income Inequality

HIGH

Source: Tim Jackson, Prosperity Without Growth, 2009

Ill Fares the Land Tony Judt
“Perhaps we can never create a world where there are no suffering children, but we can create a world where there are fewer suffering children”

..........Albert Camus

Where every child treated is a child studied
1. Recommend and promote common core standards
2. Provide educational expertise and material resources
3. Improve local and national healthcare systems by helping to create a sustainable pediatric healthcare environment