

Transforming the Child Health System from 2.0 to 3.0

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Grantmaker's in Health

**Creating Integrated Child Health Systems:
Using a Population Health Perspective**

Pew Charitable Trust

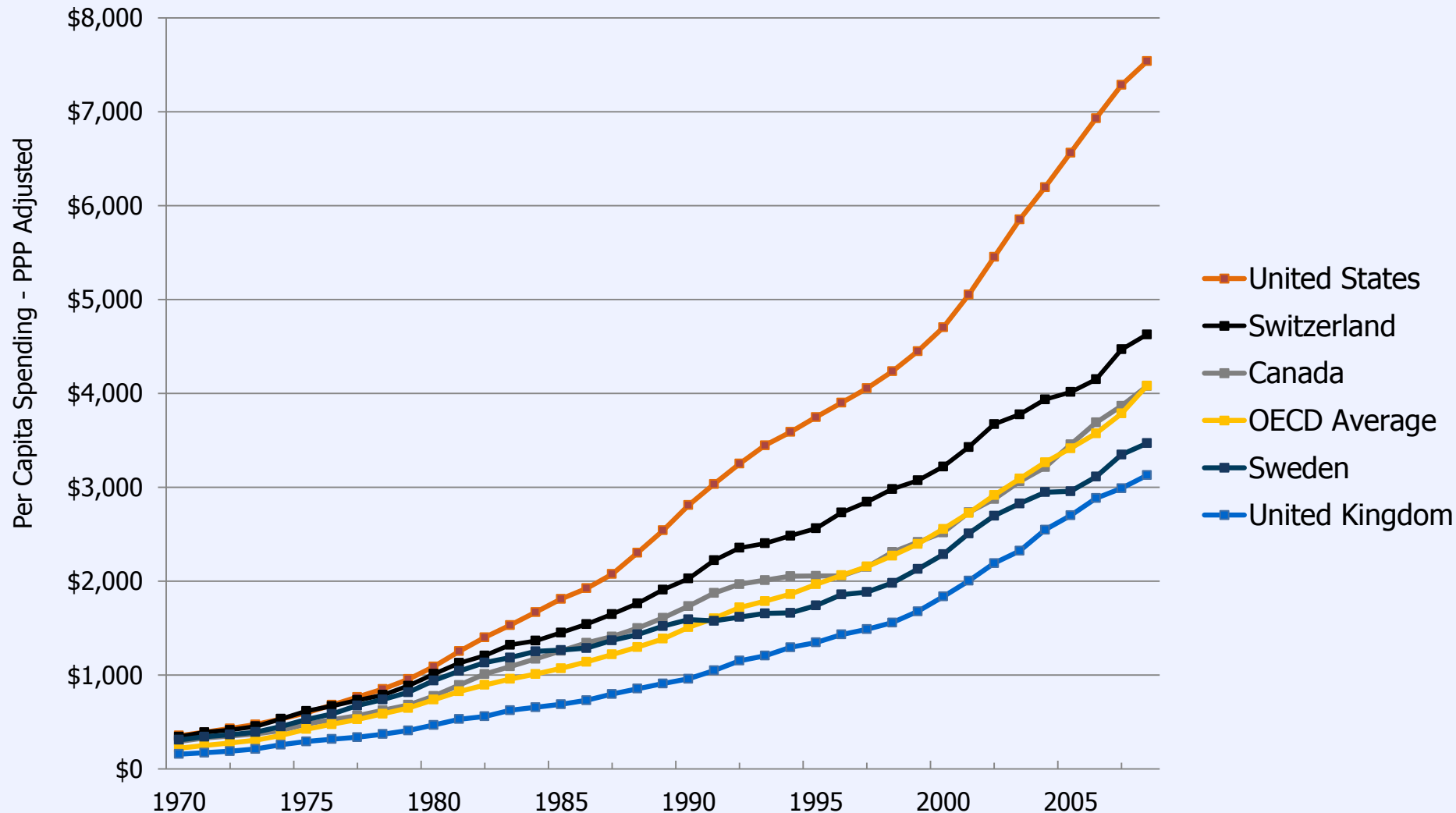
April 29, 2014



Outline

- Pressing need to transform our health system
- 3.0 Transformation Framework
 - How it can be used to redesign the system
- Prototyping 3.0 Health System Change
- Child Health System Transformation Initiative

Growth in Total Health Expenditure Per Capita, U.S. and Selected Countries, 1970-2008

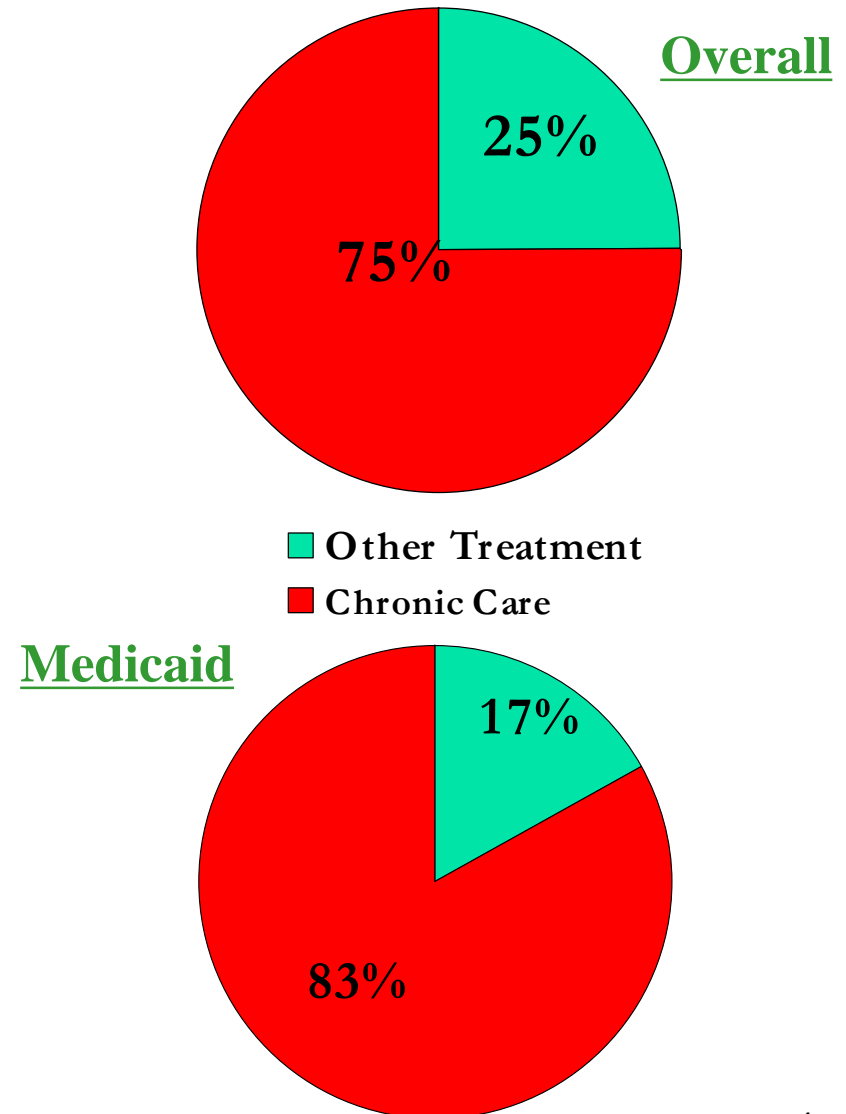


Source: Organisation for Economic Co-operation and Development (2010), "OECD Health Data", *OECD Health Statistics* (database). doi: 10.1787/data-00350-en (Accessed on 14 February 2011).

Notes: Data from Australia and Japan are 2007 data. Figures for Belgium, Canada, Netherlands, Norway and Switzerland, are OECD estimates. Numbers are PPP adjusted. Break in series: CAN(1995); SWE(1993, 2001); SWI(1995); UK (1997). Numbers are PPP adjusted. Estimates for Canada and Switzerland in 2008.

Biggest Cost Driver is Chronic Disease

- The **10%** of patients that suffer from chronic disease account for **75%** of the nation's health care spending
- Studies show that virtually **ALL** of the spending growth in Medicare over the last 15 years resulted from increased spending on people with multiple, chronic conditions
- The number of chronically ill expected to **DOUBLE** by 2020



Rapid Rise in Disease Prevalence :

% of Adult Population Treated, By Medical Condition,
1987-2005:

Medical Condition	1987 %	2005 %
Mental Disorders	5.5%	18.8%
Hyperlipidemia	1.5%	14.4%
Hypertension	13.6%	22.0%
Diabetes	4.0%	8.0%
Pulmonary Conditions (OPD, Asthma)	9.5%	18.4%
Lupus/Other Related	4.85	6.0%
Arthritis	7.8%	13.6%
Back Problems	5.4%	13.2%
Upper GI	3.8%	10.7%
Heart Disease	8.1%	9.5%

U.S. HEALTH
IN
INTERNATIONAL PERSPECTIVE

Shorter Lives, Poorer Health





April 2013

		Overall well-being (all 5 dimensions)	Dimension 1 Material well-being	Dimension 2 Health and safety	Dimension 3 Education	Dimension 4 Behaviours and risks	Dimension 5 Housing and environment
		Average rank (all 5 dimensions)	(rank)	(rank)	(rank)	(rank)	(rank)
1	Netherlands	2.4	1	5	1	1	4
2	Norway	4.6	3	7	6	4	3
3	Iceland	5	4	1	10	3	7
4	Finland	5.4	2	3	4	12	6
5	Sweden	6.2	5	2	11	5	8
6	Germany	9	11	12	3	6	13
7	Luxembourg	9.2	6	4	22	9	5
8	Switzerland	9.6	9	11	16	11	1
9	Belgium	11.2	13	13	2	14	14
10	Ireland	11.6	17	15	17	7	2
11	Denmark	11.8	12	23	7	2	15
12	Slovenia	12	8	6	5	21	20
13	France	12.8	10	10	15	13	16
14	Czech Republic	15.2	16	8	12	22	18
15	Portugal	15.6	21	14	18	8	17
16	United Kingdom	15.8	14	16	24	15	10
17	Canada	16.6	15	27	14	16	11
18	Austria	17	7	26	23	17	12
19	Spain	17.6	24	9	26	20	9
20	Hungary	18.4	18	20	8	24	22
21	Poland	18.8	22	18	9	19	26
22	Italy	19.2	23	17	25	10	21
23	Estonia	20.8	19	22	13	26	24
23	Slovakia	20.8	25	21	21	18	19
25	Greece	23.4	20	19	28	25	25
26	United States	24.8	26	25	27	23	23
27	Lithuania	25.2	27	24	19	29	27
28	Latvia	26.4	28	28	20	28	28
29	Romania	28.6	29	29	29	27	29

Lack of data on a number of indicators means that the following countries, although OECD and/or EU members, could not be included in the league table of child well-being: Australia, Bulgaria, Chile, Cyprus, Israel, Japan, Malta, Mexico, New Zealand, the Republic of Korea, and Turkey.

How are the Children?

Trends in Child Health

- Mortality Rates Continue to Decrease
- Morbidity is decreasing for many Medical Conditions
- Disparities in Health Outcomes are increasing (societal inequality)
- Emergence of New Morbidities and Concerns (obesity, ADHD, mental health)
- Patterns of Exposure and Risk are changing (squeezed families, hurried children, toxic environments)

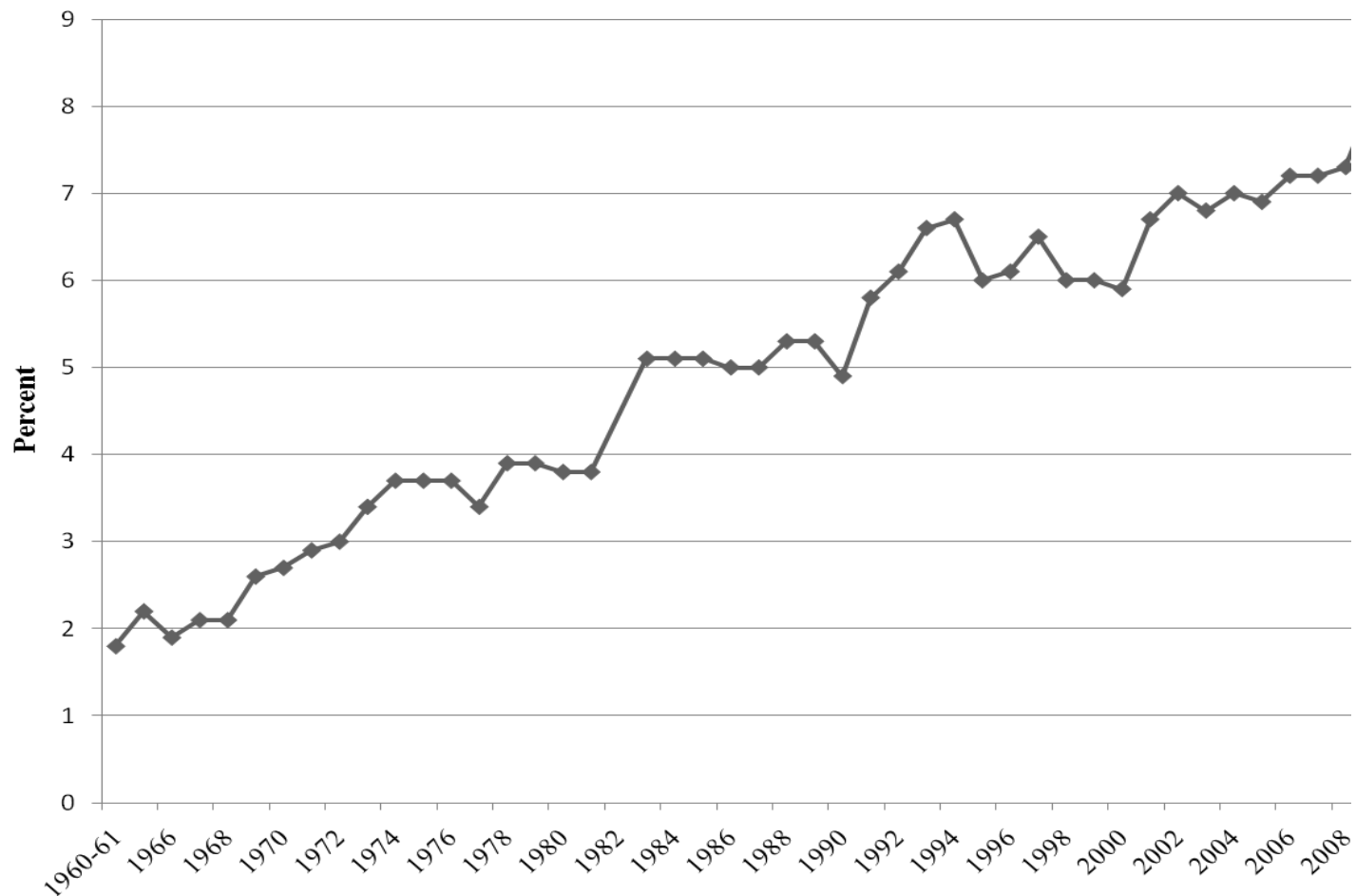


Changing Pattern of Childhood Morbidity

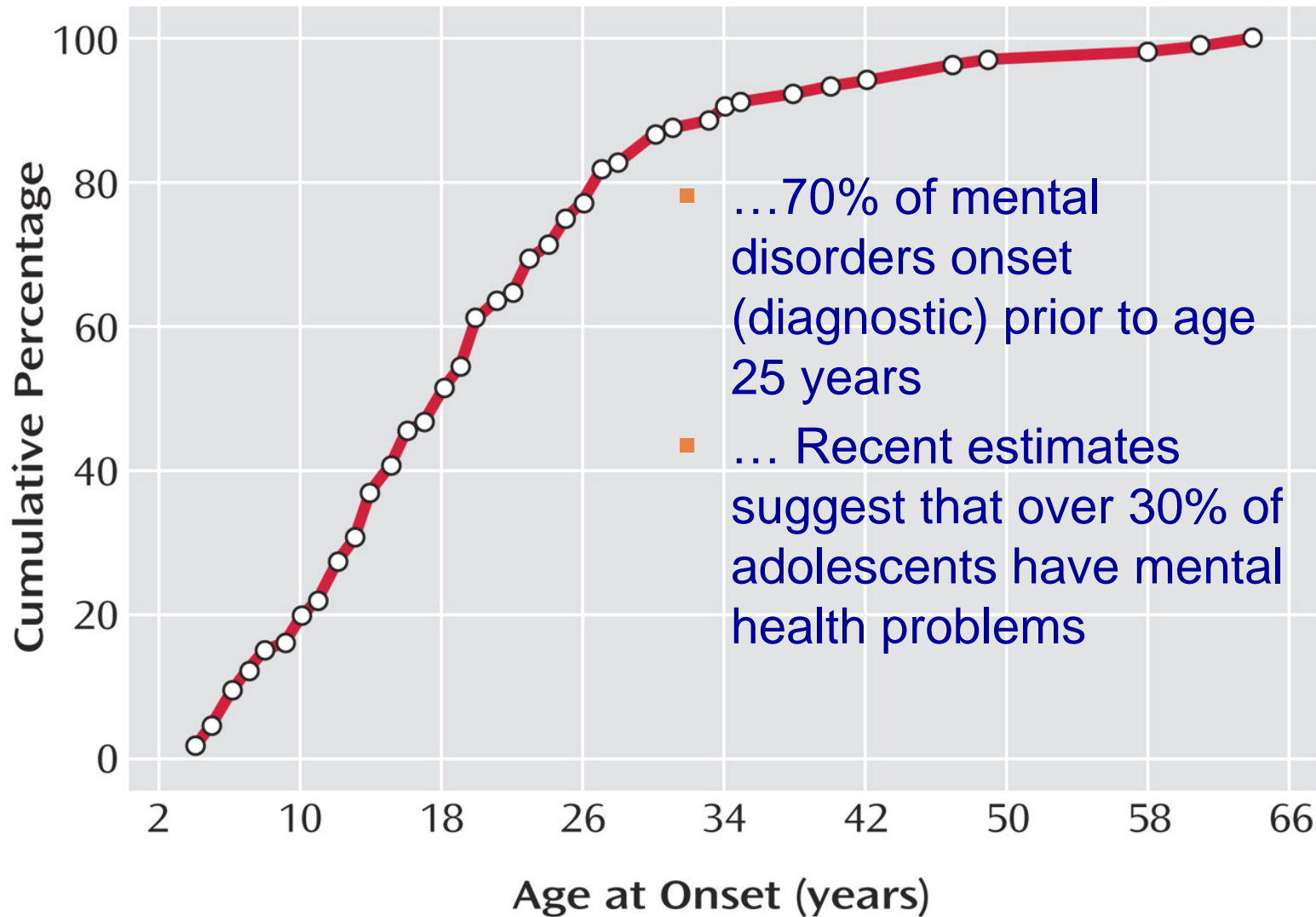
- Increase in chronic health problems (16%-33%)
 - Not Hemophilia, Cancer, Congenital Heart Disease
- Growing prevalence of mental health disorders (15-20%)
- Greater appreciation of role and impact of neuro-developmental health problems – learning, language (10-17%)
- Growing number of children with multiple conditions (co-morbidities) e.g. asthma, obesity, ADHD

Trends in Childhood Disability- U.S.

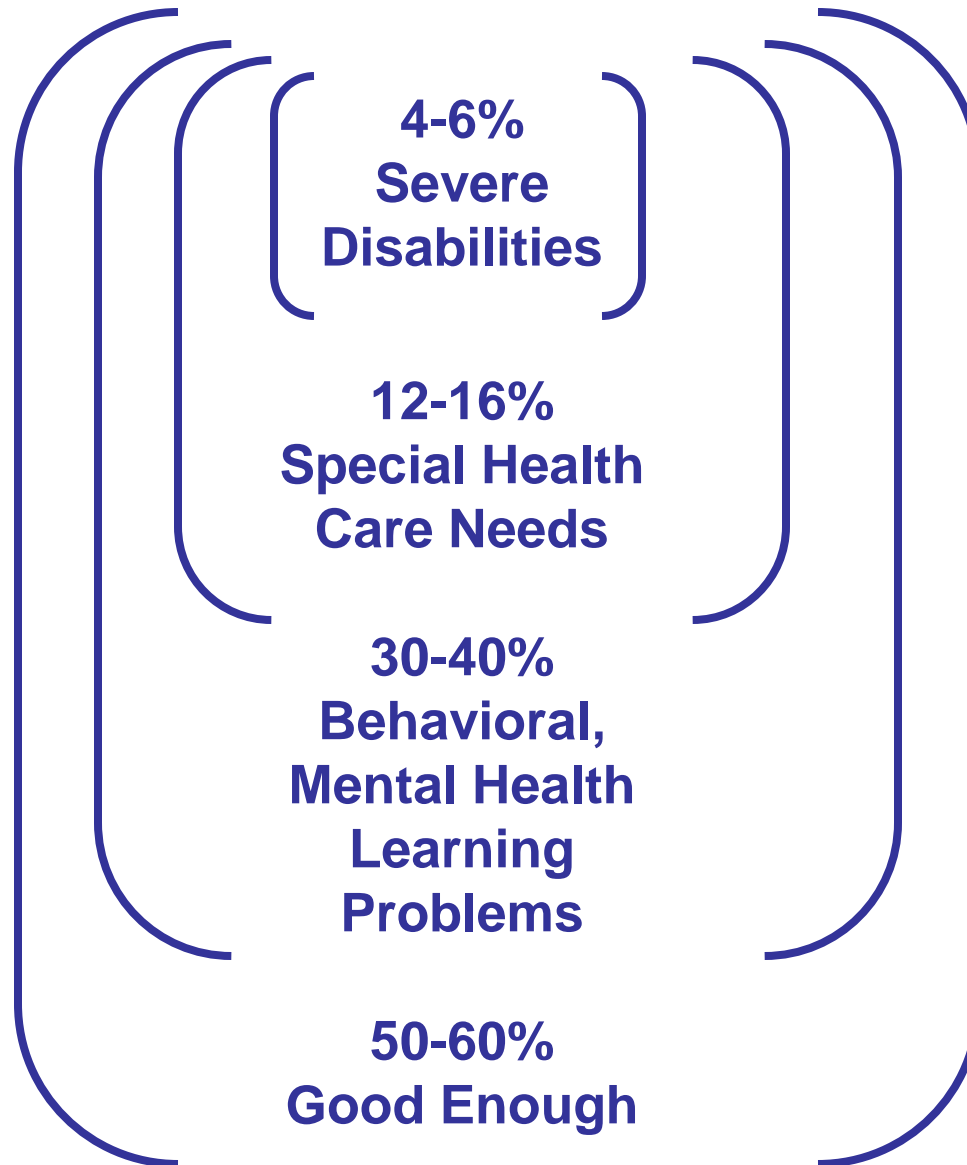
(Limitation of Activity due to Chronic Conditions for U.S. Children, NHIS, 1960-2009)



Mental Health Disorder Across the Life Span



Children at Risk

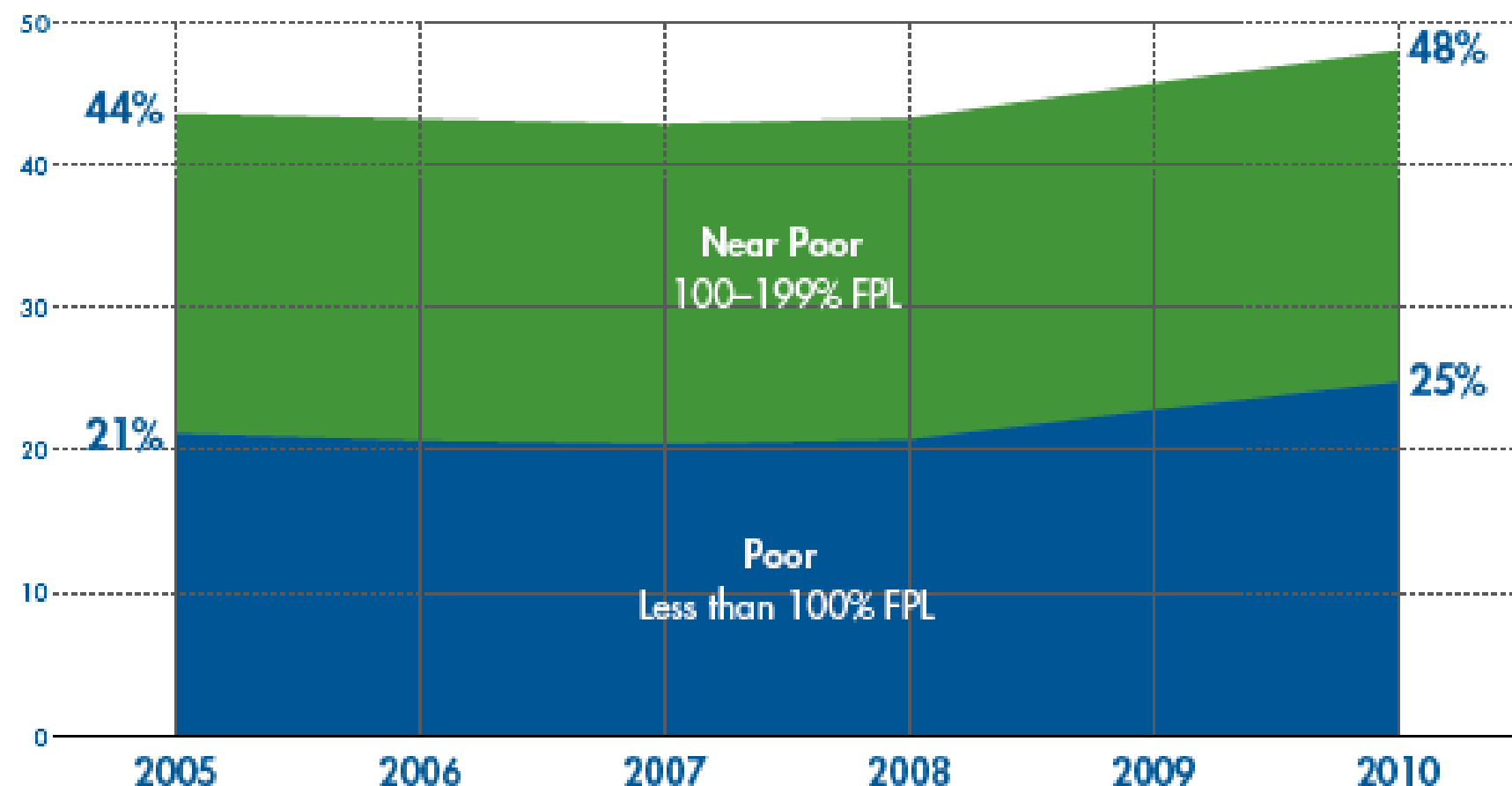


Economic Adversity and Child Outcomes

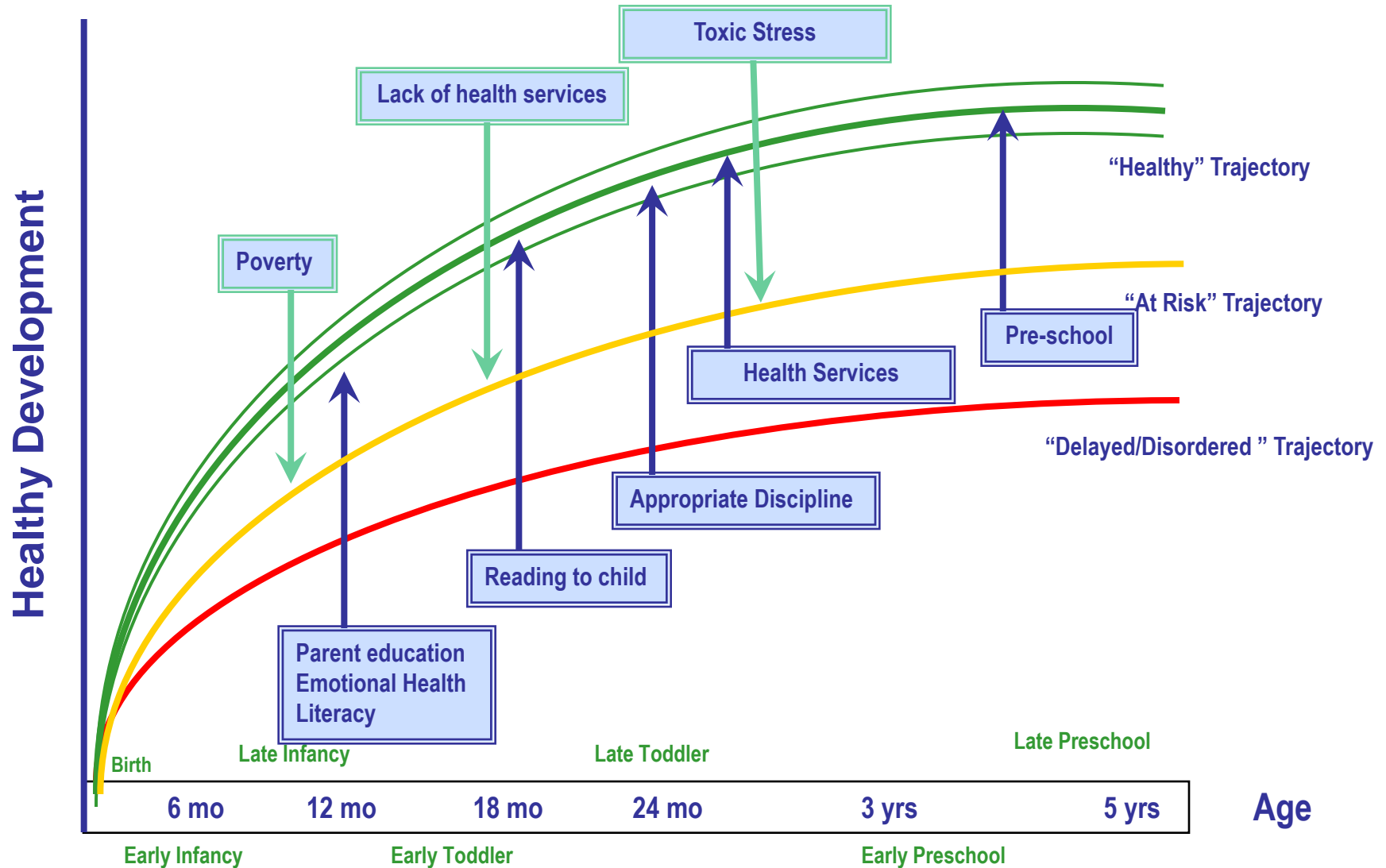
- Born early, smaller, more fragile, and at risk
- Worse physical, cognitive, emotional health
- Hospitalized more, more obese, more asthma, more mental health problems, more disability
- Lower health trajectories, greater brain drain
- Carry the burden of their social status into adulthood
- Programmed into how their biology – and how their immune, endocrine, neurological systems develop, function and perform

Children under age 6 living in low-income and poor families, 2005–2010

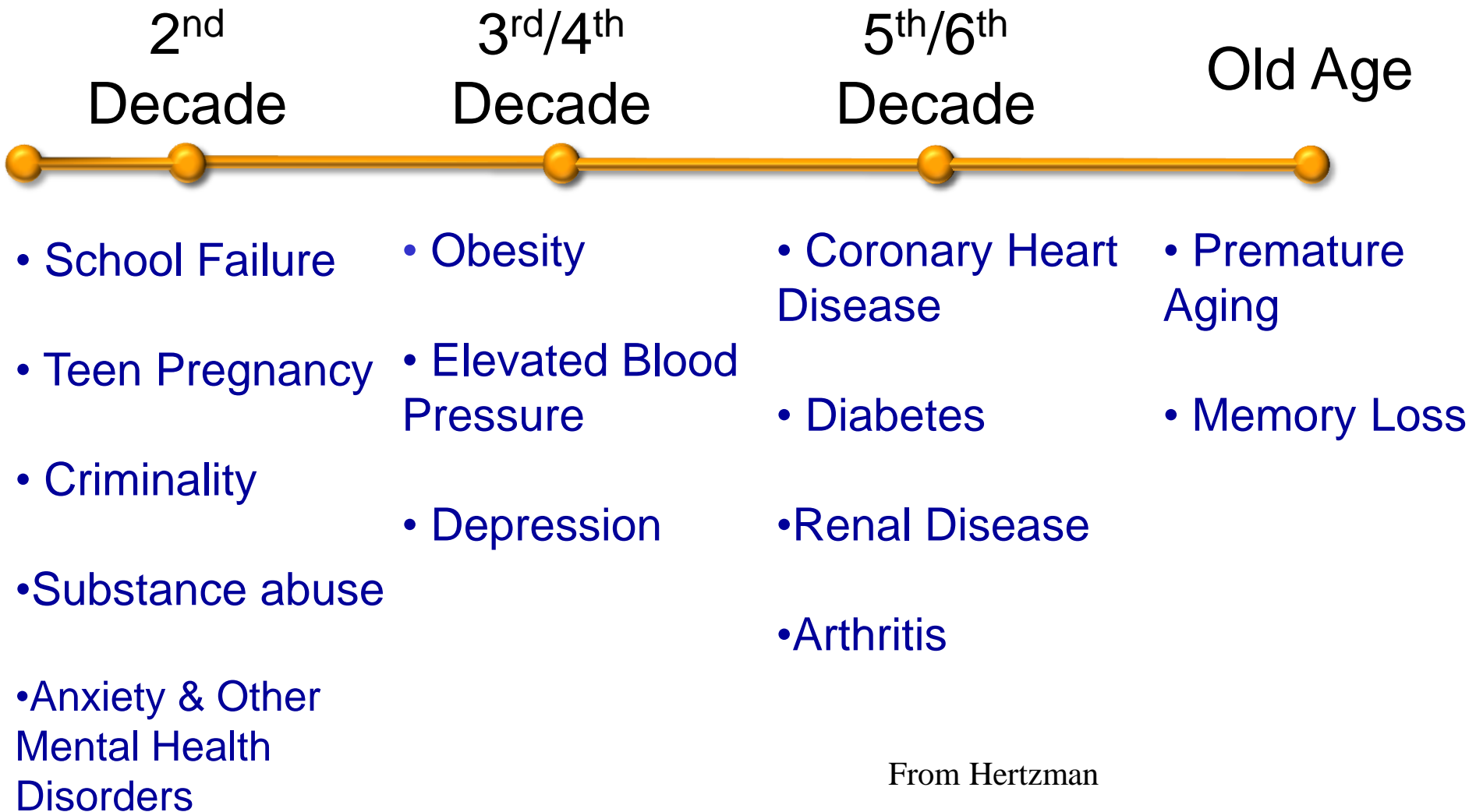
Percent (%)



Healthy Development : Reducing Risk & Optimizing Protective Factors



Down Stream Health Problems Related to Early Life

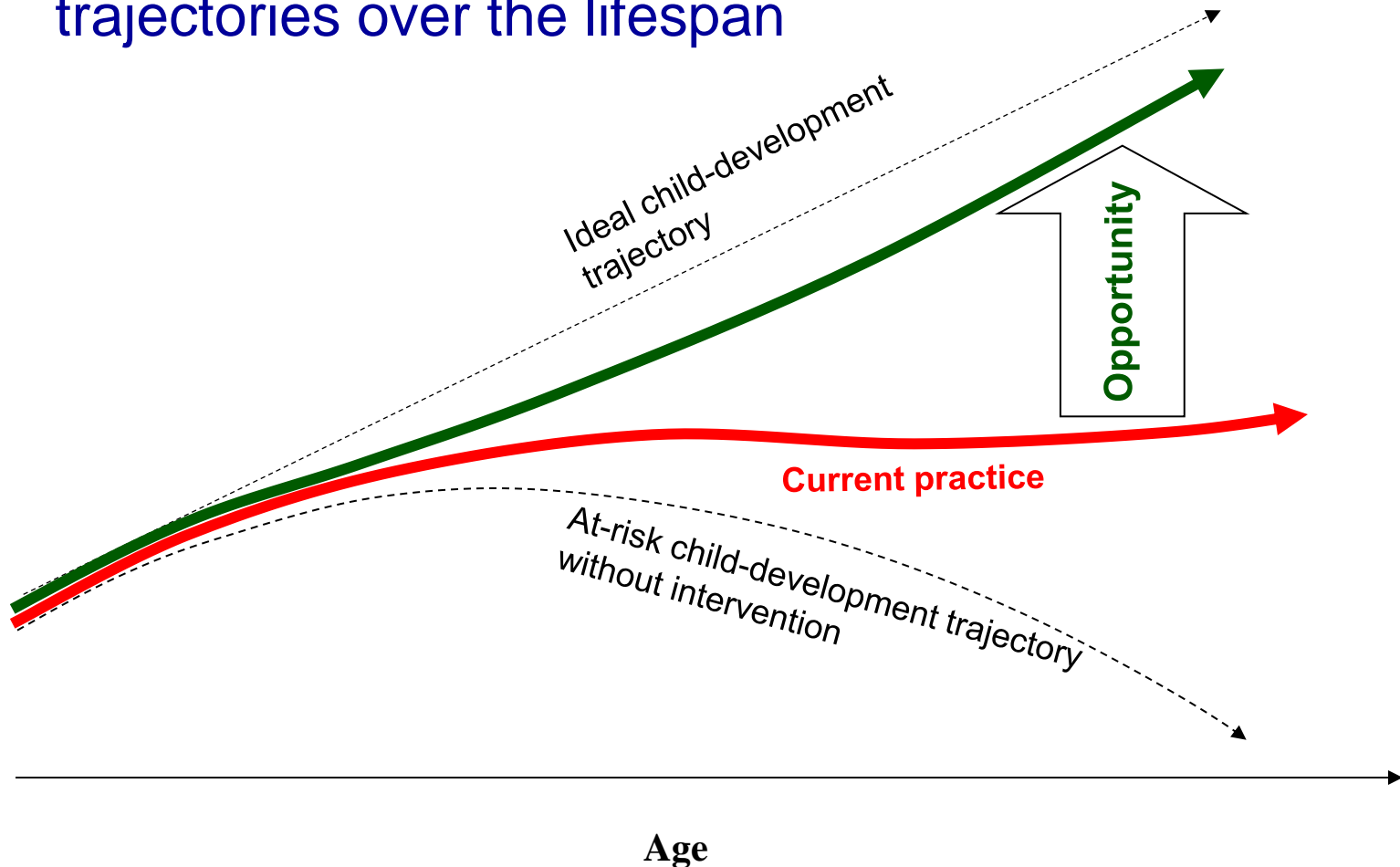


Poor Performance of Child Health System

- Fragmented service delivery
- Difficulty accessing services and huge inequities
- Low and Uneven quality
- Models of care is outmoded and don't match current needs, or capability
- Limited local responsibility
- Operating under enormous constraints

Not Optimizing Healthy Development

Addressing the factors shaping health development trajectories over the lifespan



Science informing Policy

3.0 TF

A New Framework for Health System Transformation

3.0 Transformation Framework

- 3 eras of health care; 3 major transitions
- 1st Era was focused on saving lives through acute care, emergency and rescue care, and public health safety
- 2nd Era was focused on prolonging life and decreasing levels of disability through chronic disease management and secondary prevention
- 3rd Era will focus on optimizing health and well being through ... primary prevention, health promotion, community integrated delivery systems

The Evolving Health Care System

The First Era (Yesterday)

- Focused on acute and infectious disease
- **Biomedical Model**
- Short time frames
- Medical Care
- Insurance-based financing
- Industrial Model
- **Reducing Deaths**



**Health System
1.0**

The Second Era (Today)

- Increasing focus on chronic disease
- **BPS Model**
- Longer time frames
- Chronic Disease Mgmt & Prevention
- Pre-paid benefits
- Corporate Model
- **Prolonging Disability free Life**



**Health System
2.0**

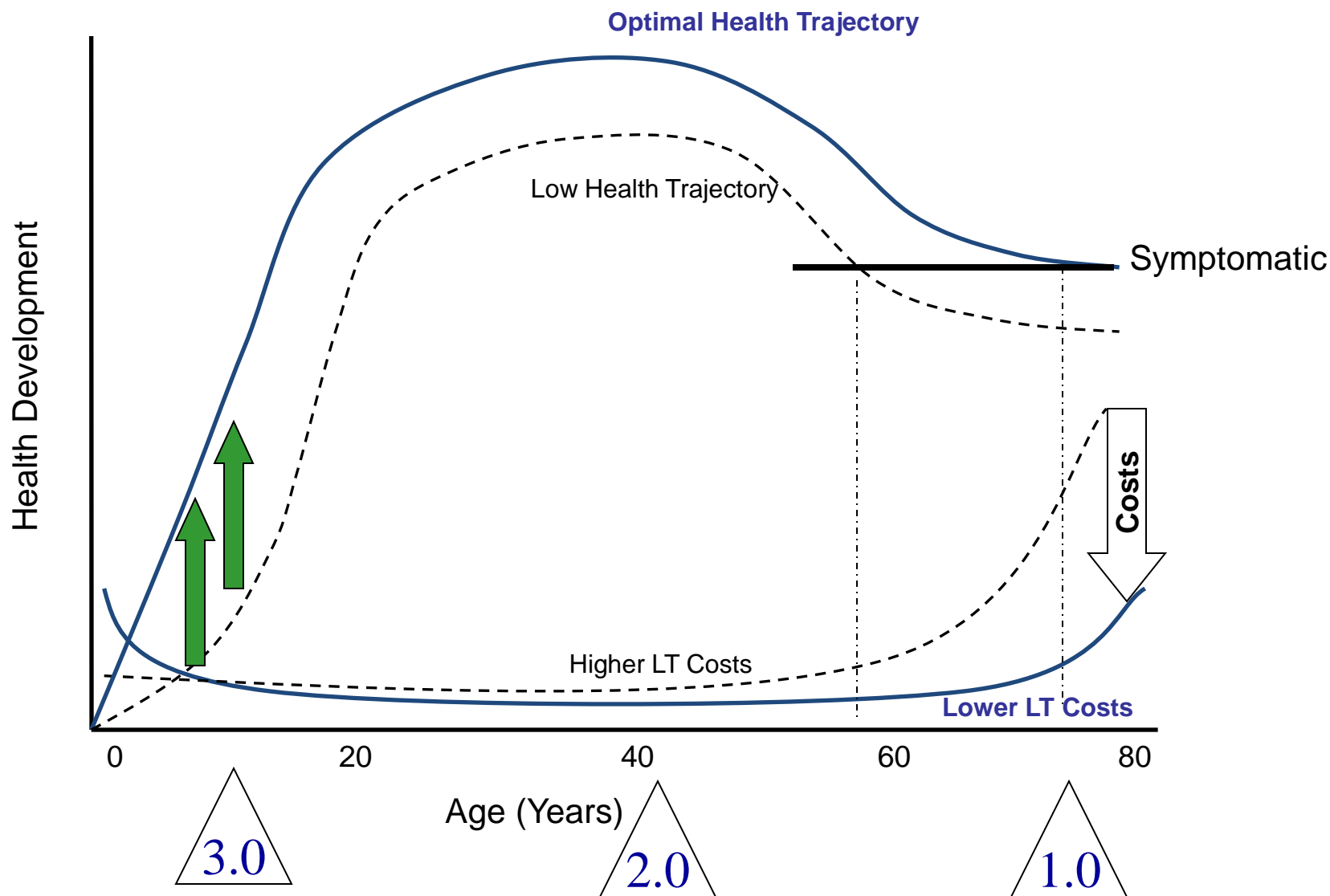
The Third Era (Tomorrow)

- Increasing focus on achieving optimal health
- **Life Course Health Development**
- Lifespan/ generational
- Investing in population-based prevention
- Network Model
- **Producing Optimal Health for All**



**Health System
3.0**

Shifting the Health Development Curve to Shift the Cost Curve



Innovation Driven US Health Care Delivery System Evolution

Health Delivery System Transformation Critical Path

Acute Care System 1.0

**Episodic
Non Integrated
Care**

- Episodic Health Care
 - Sick care focus
 - Uncoordinated care
 - High Use of Emergency Care
 - Multiple clinical records
 - Fragmentation of care
- Lack integrated care networks
- Lack quality & cost performance transparency
- Poorly Coordinate Chronic Care Management

Coordinated Seamless Healthcare System 2.0

**Outcome
Accountable
Care**

- Patient/Person Centered
- Transparent Cost and Quality Performance
 - Results oriented
 - Assures Access to Care
 - Improves Patient Experience
- Accountable Provider Networks Designed Around the patient
- Shared Financial Risk
- HIT integrated
- Focus on care management and preventive care
 - Primary Care Medical Homes
 - Care management/ prevention focused
 - Shared Decision Making and Patient Self Management

Community Integrated Healthcare System 3.0

**Community
Integrated
Healthcare**

Healthy Population Centered
Community Health Linked
Cost , Quality, and Population Transparency
Accessible Health Care Choices

Community Health Integrated networks capable of addressing psycho social/economic needs

Population based reimbursement

Learning Organization: capable of rapid deployment of best practices

Community Health Integrated
Healthy People Goal Oriented
Community Health Capacity Builder
Shared community health responsibility
E-health and telehealth capable
Patient remote monitoring and management
Health E-Learning resources

Health System Transformation Framework

Components	Current System	Transformed System	Change Strategies
Logic			
Organization of Health Producing Sectors			
Organization & Delivery of Individual Care			
Medical Education & Workforce			
Market			
Funding			
Regulation & Governance			
Performance Monitoring			

Transitioning to a 3.0 Operating Logic

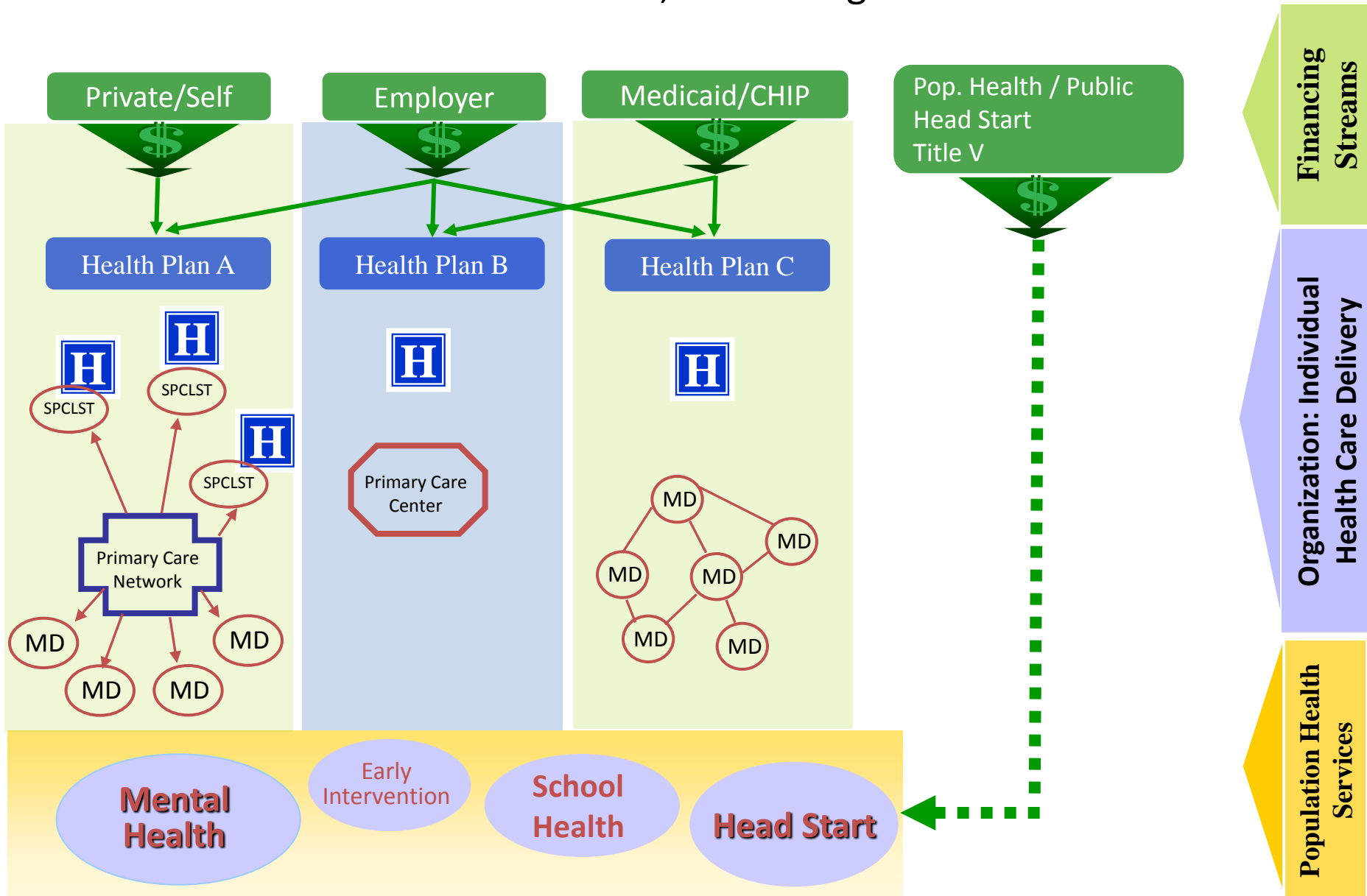
	Old Operating Logic	New Operating Logic
Definition of Health	Absence of Disease	Development of Capacities and Realizing Potential (IOM2004)
Goal of the Health System	Maintain Health, Prolong Life	Optimize Population Health Development
Client Model	Individual	Individual, Population, Community
Health Production Model	Biomedical	Life Course Health Development
Intervention Approach	Diagnosis, Treatment and Rehabilitation	Disease prevention, Preemptive Interventions, Health Promotion, Optimization
Time Frames	Short/ Episodic	Life Long & Continuous

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Performance Monitoring			

Current Model

Vertical Silos, Little Integration

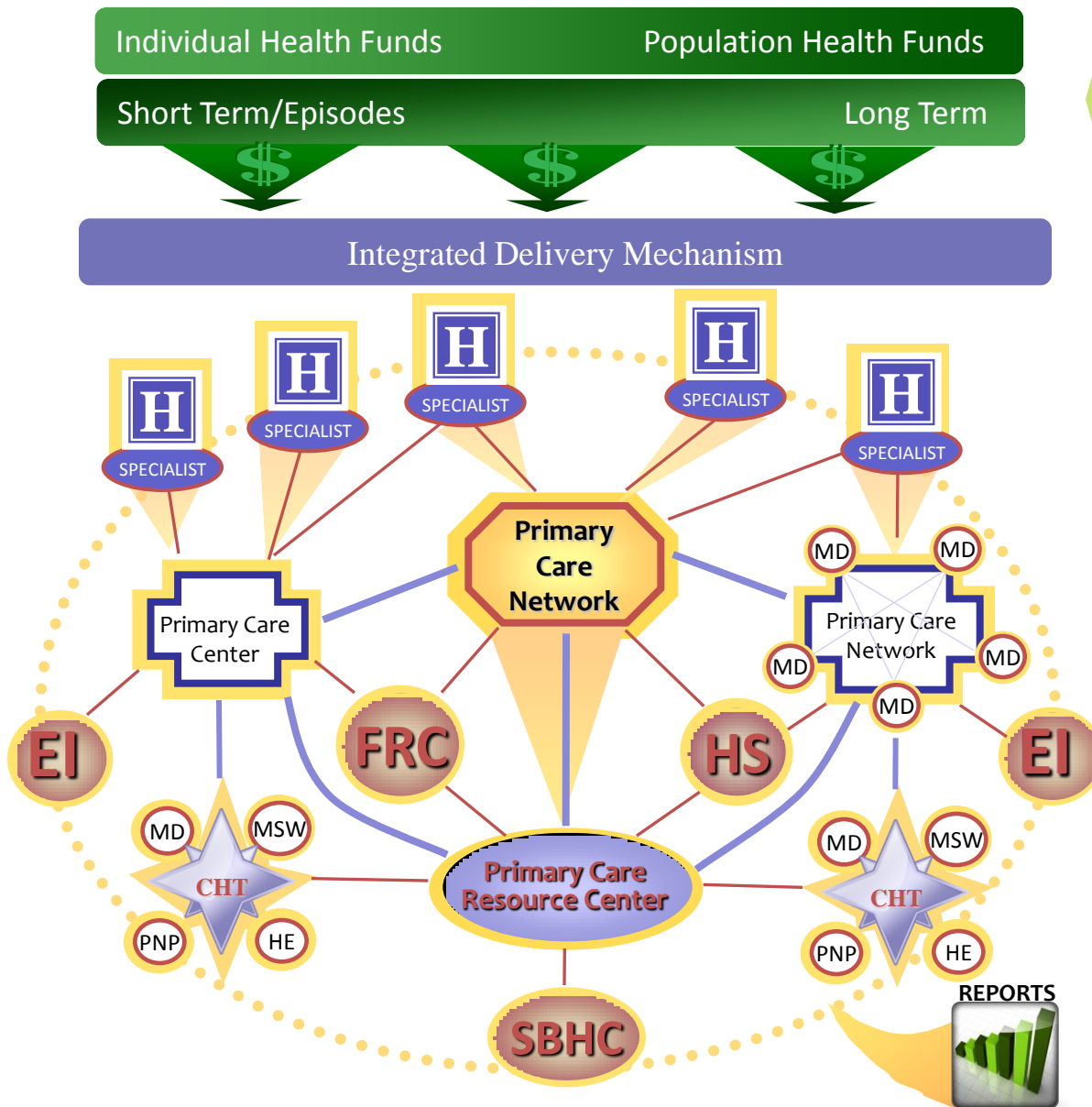


Integrated Health System



Source: Hassink, Werk, June 2008

Schema for a 3.0 KIDS Health System



Integrated Finance Mechanism

- Employer
- Medicaid CHIP
- Individual
- Prevention Trust Fund
- Other: Title V, HeadStart, Title X, CDC, etc

Measurement/IT System

- Decision Support and care mgmt
- Quality & Performance
- Clinical & Population Registries (surveillance and other analyses)
- Health information exchanges

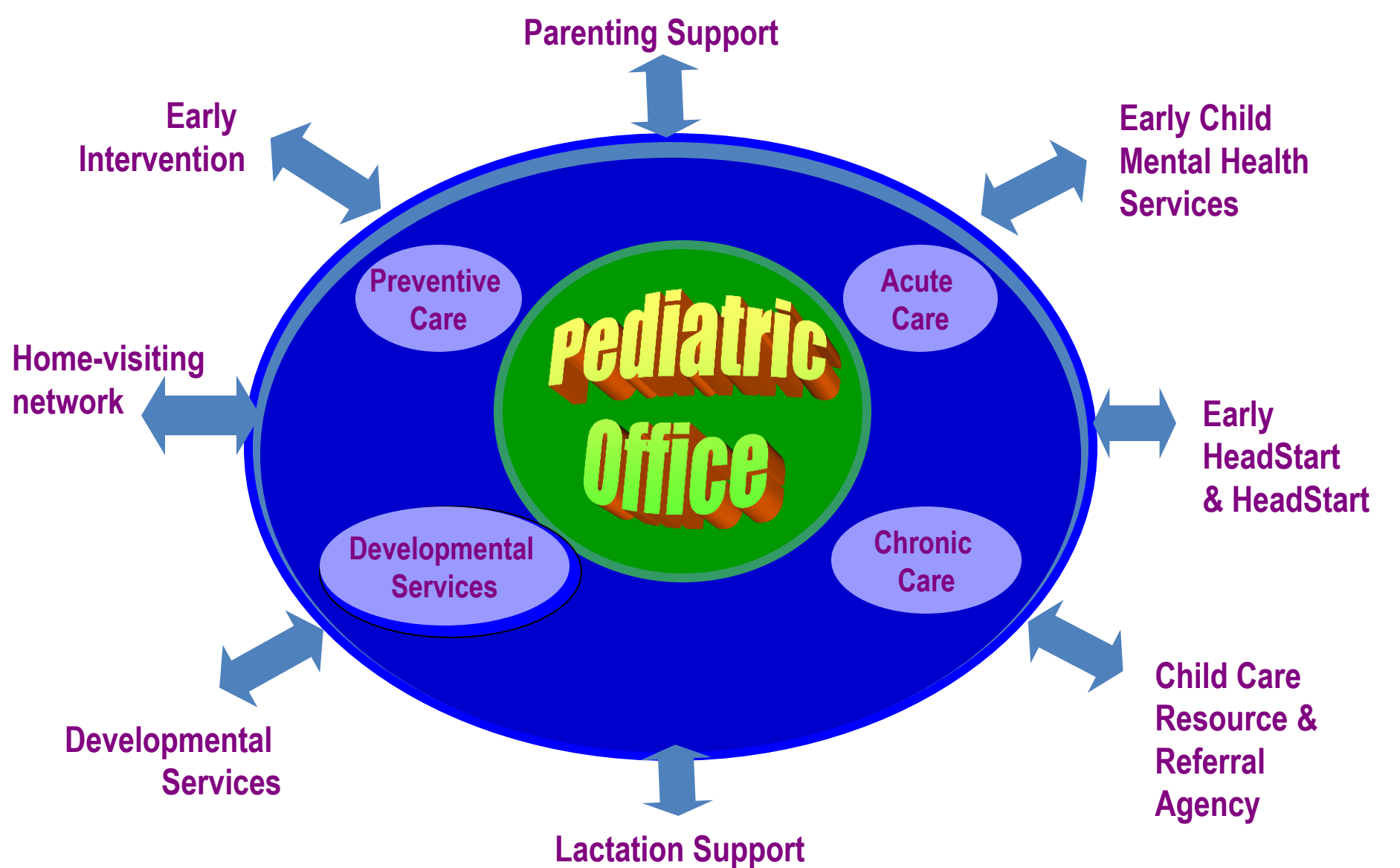
Value Portfolio

- Population Health Trajectories
- Diagnosis-specific outcomes
- Geographic Outcomes
- Short/Long Term Costs Savings

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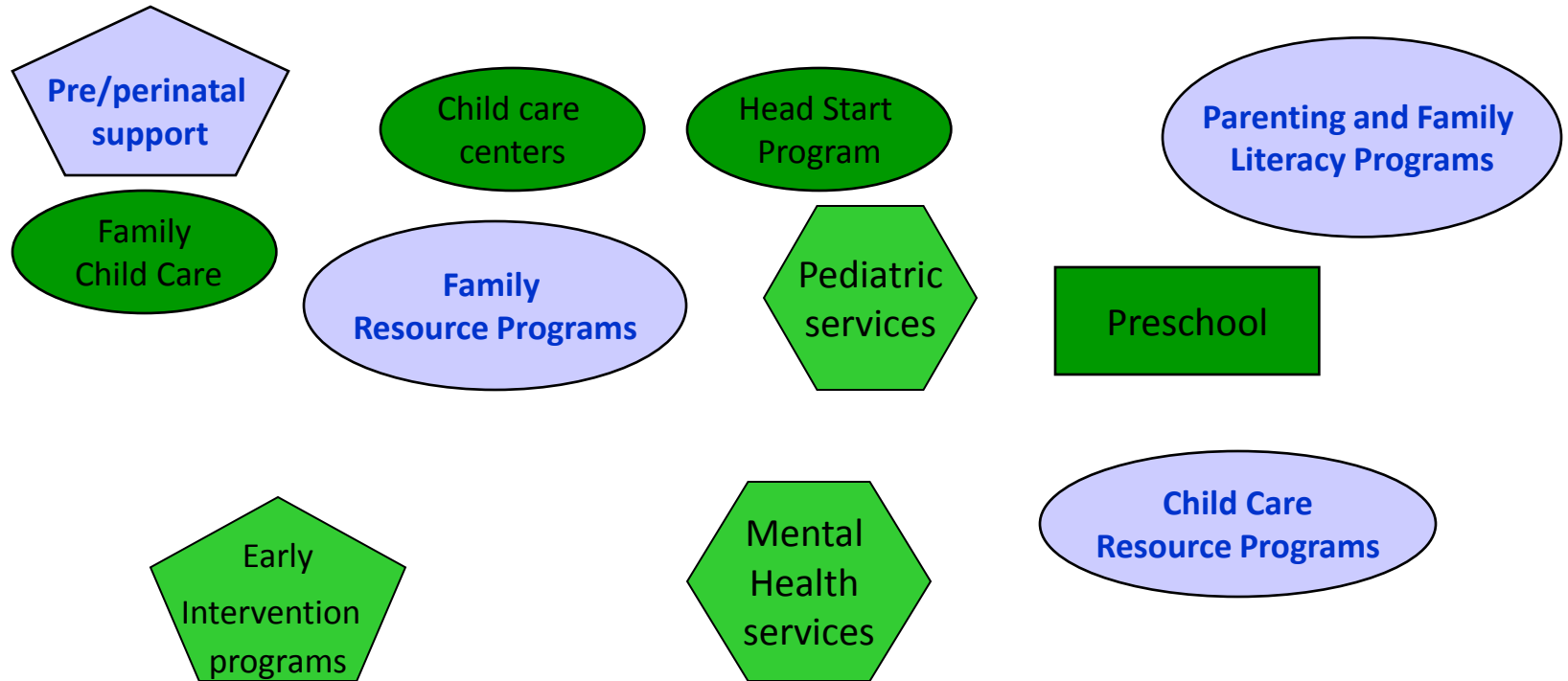
Pediatric Office 2.5



Service Organization For Early Health and Development

PROGRAMS

Influencing Early Brain, Child Development & School Readiness



Sector based programs

ECE Programs

Health

Family Support

Child Welfare

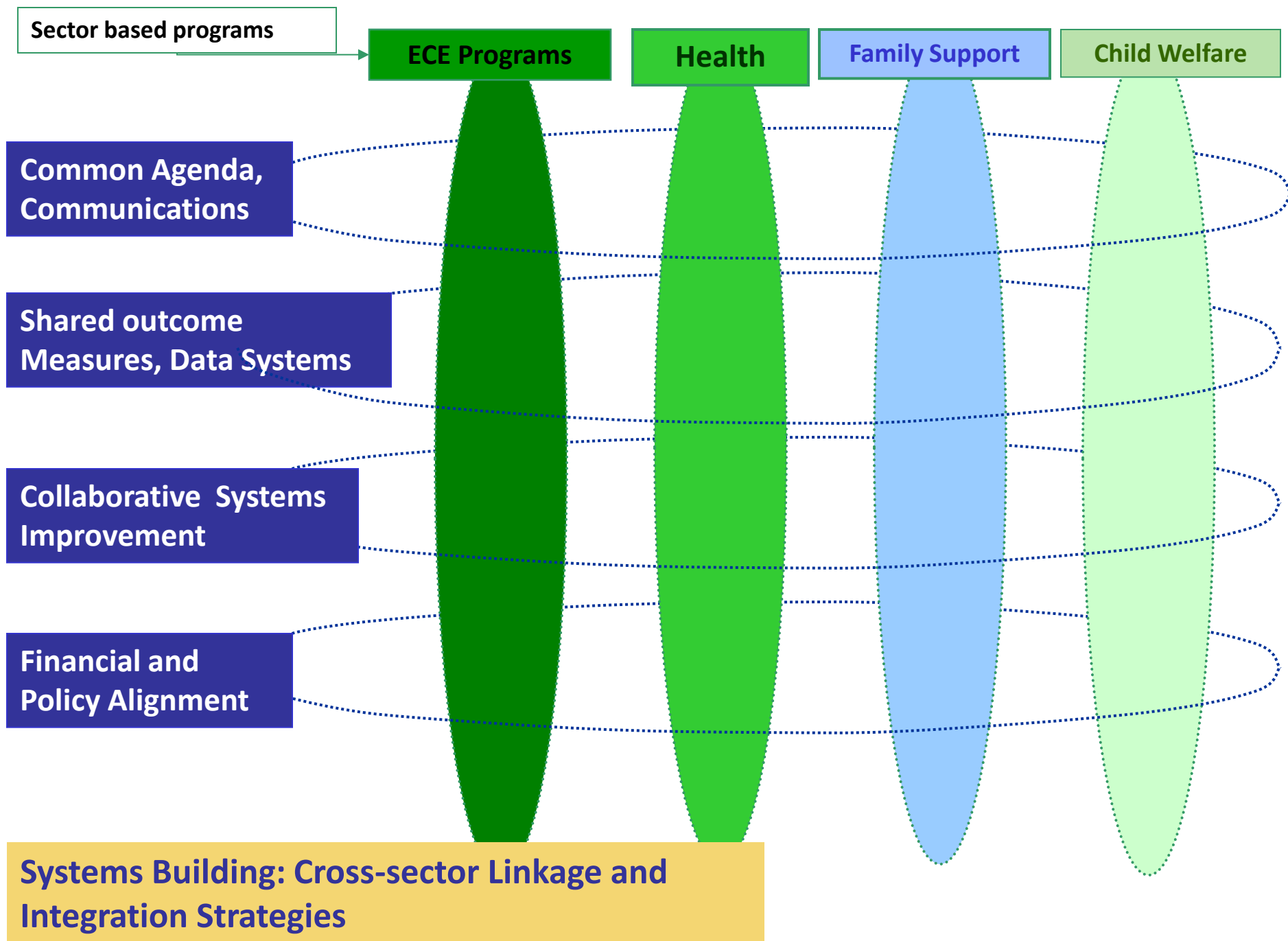
Common Agenda,
Communications

Shared outcome
Measures, Data Systems

Collaborative Systems
Improvement

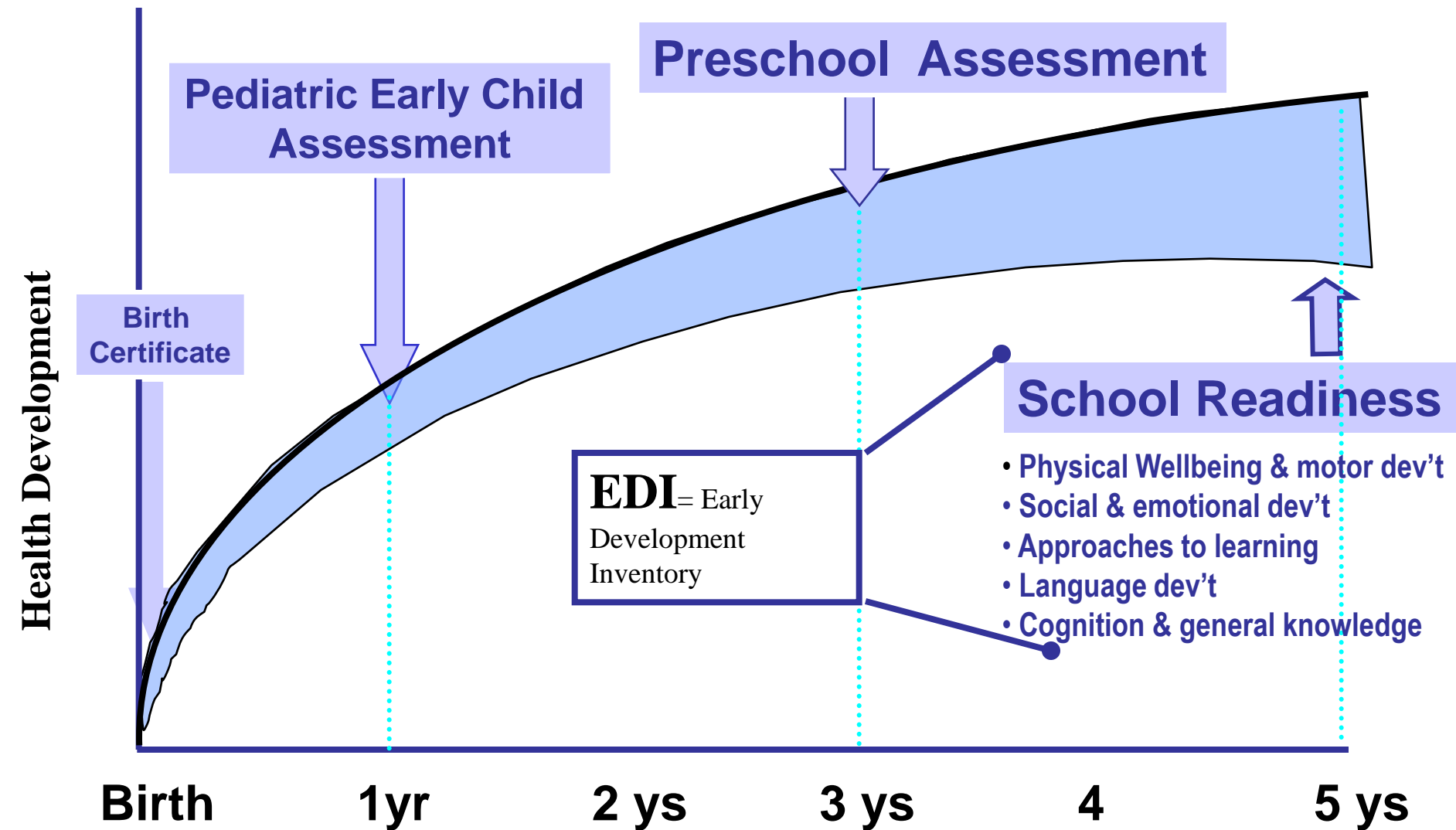
Financial and
Policy Alignment

Systems Building: Cross-sector Linkage and
Integration Strategies

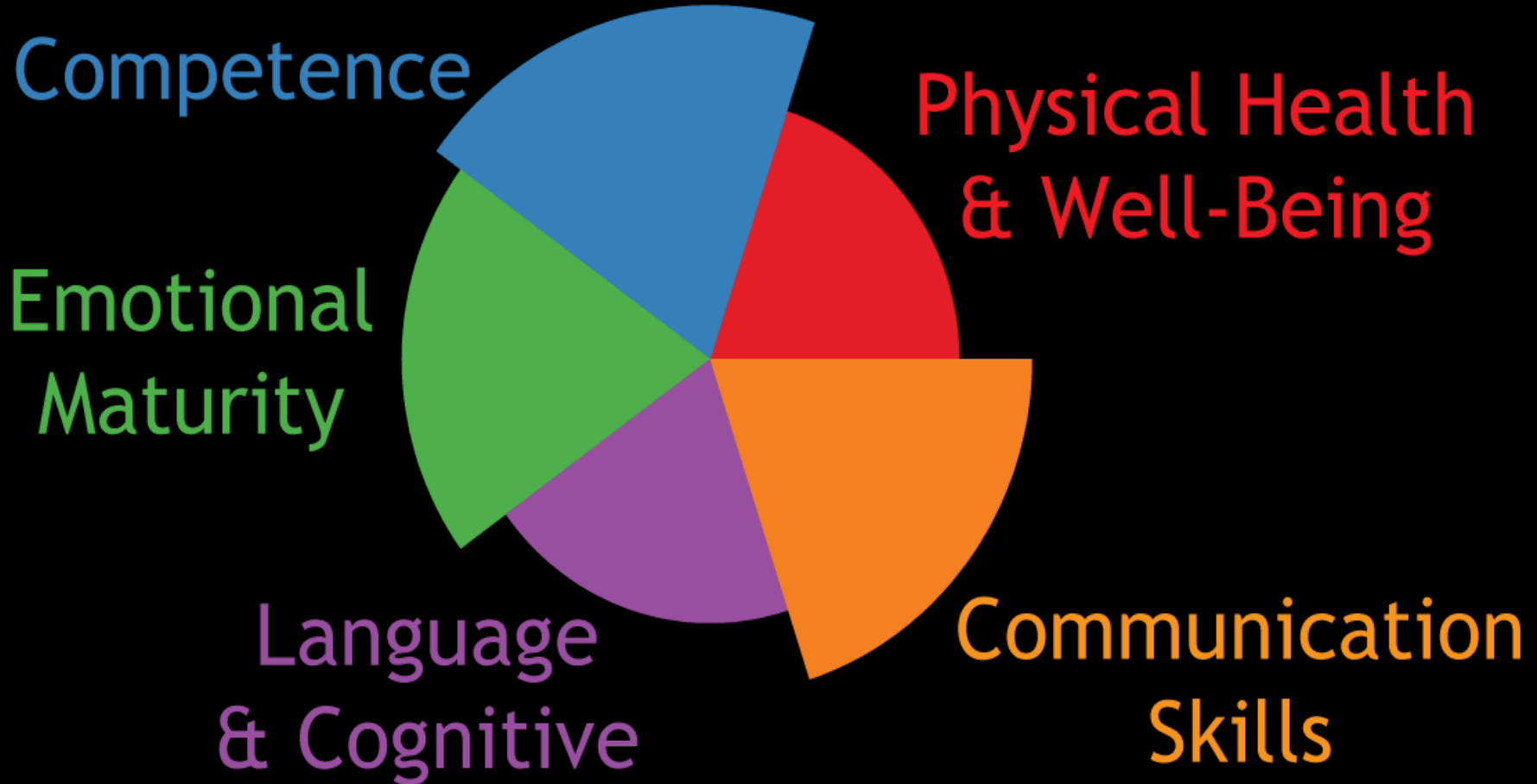


Systematic Data Collection

For tracking Health Development Trajectories



What Does the EDI Measure?

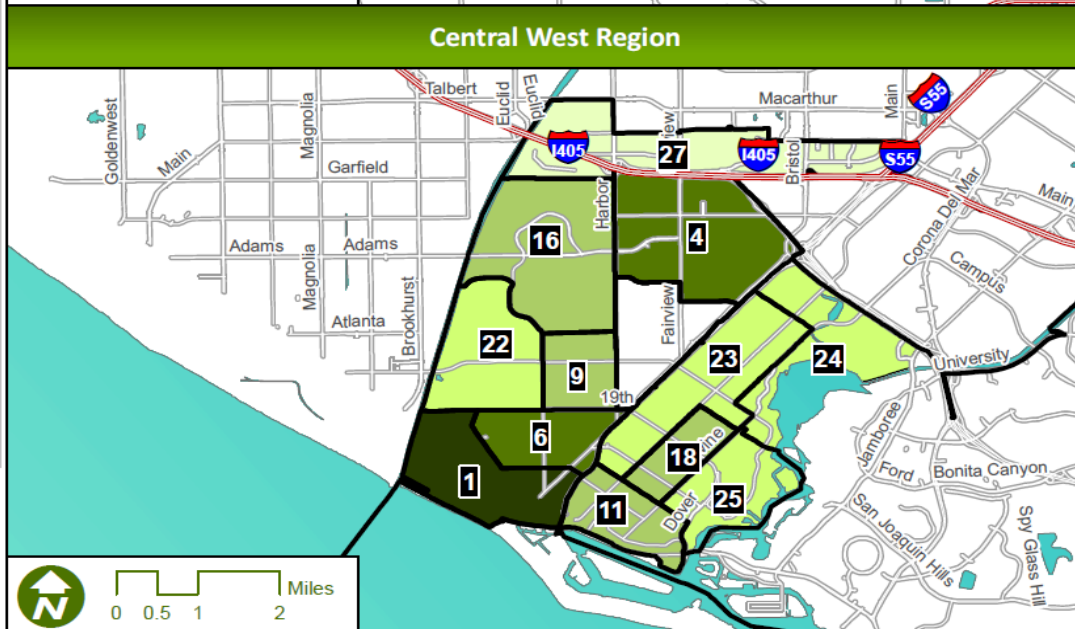
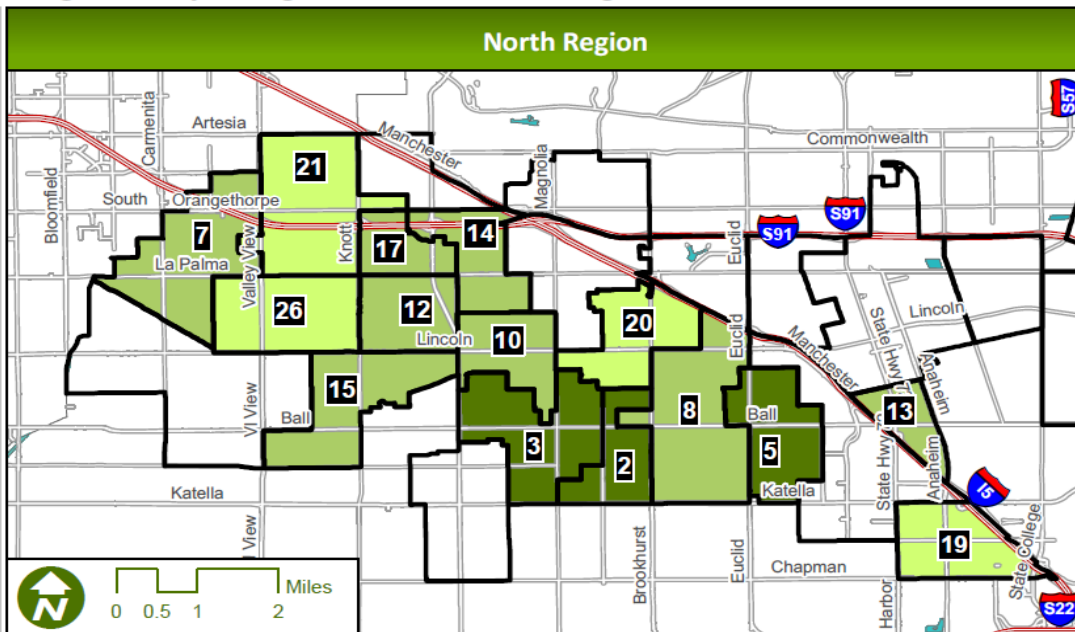


EDI: Orange County - Neighborhoods: Percentage of Children Vulnerable on 1 or More Domains

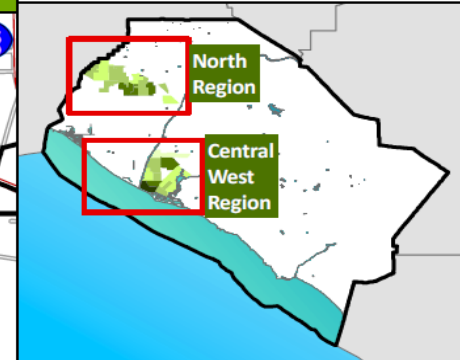
Neighborhoods: Percent Vulnerable on 1 or More Domains

ID	Neighborhood	%
1	West Newport**	53%
2	Garcia**	41%
3	Magnolia High**	41%
4	Baker Area**	36%
5	Loera**	36%
6	Southwest Costa Mesa**	35%
7	La Palma**	33%
8	Magesca**	33%
9	Westside Costa Mesa**	32%
10	Hasket**	32%
11	Newport Heights**	31%
12	Knott	31%
13	Paul Revere**	31%
14	East Buena Park**	28%
15	South Cypress College**	27%
16	Mesa Verde**	25%
17	Pendleton	25%
18	Downtown Costa Mesa	24%
19	Panderosa**	22%
20	Tiger Woods**	22%
21	Cory**	21%
22	Channel**	20%
23	Eastside Costa Mesa**	18%
24	Santa Ana Heights**	15%
25	Westcliff	15%
26	Santrack**	14%
27	South Coast Metro**	8%

** Fewer than 70% of 5 year olds in this neighborhood had completed EDIs so the results may not represent children living here.

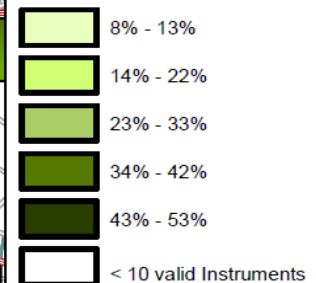


Inset Map of Orange County



Legend

Percentage of Children Vulnerable on 1 or More Domains

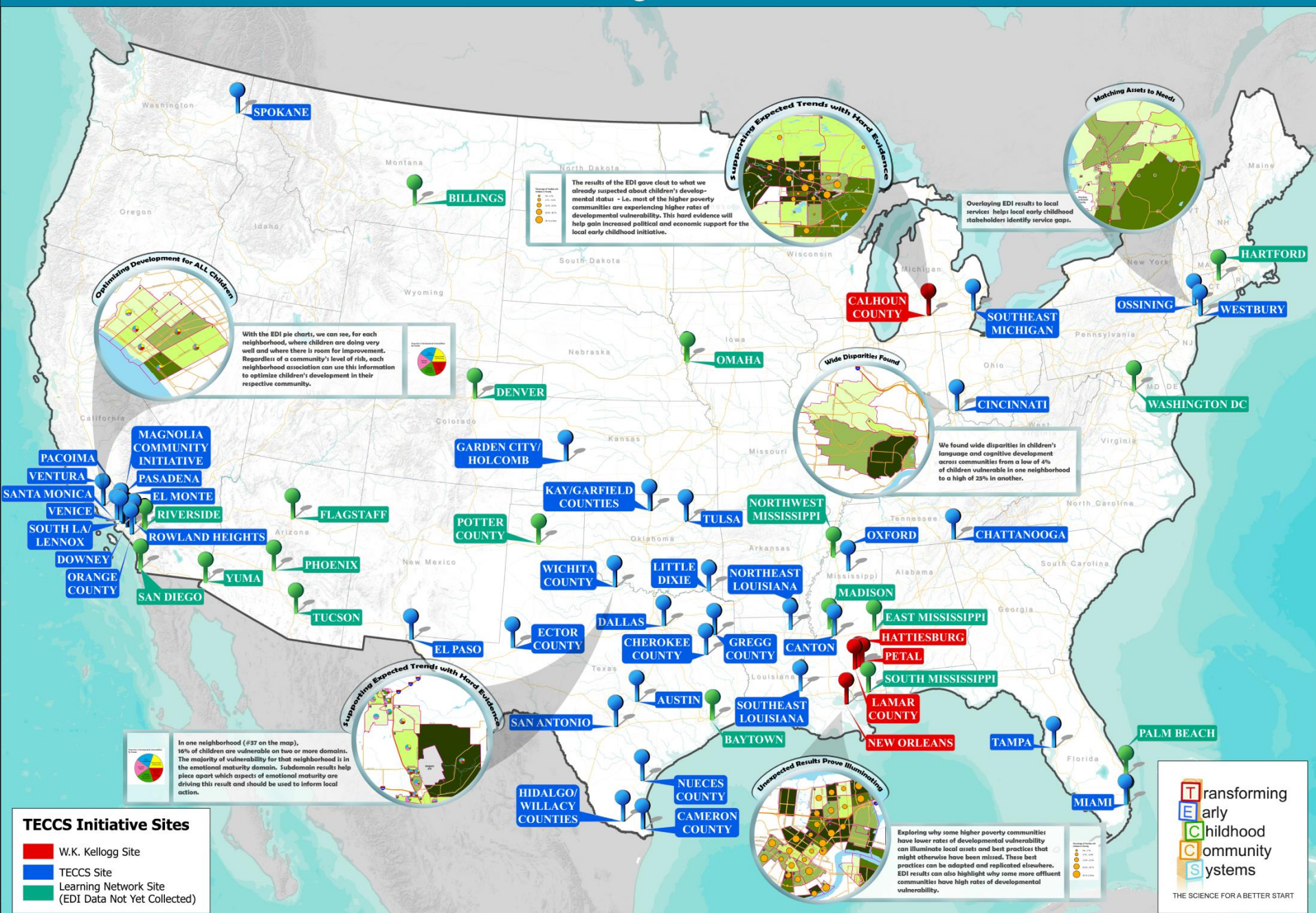


Data: EDI - 2009

Neighborhood Boundaries: CFC Orange County

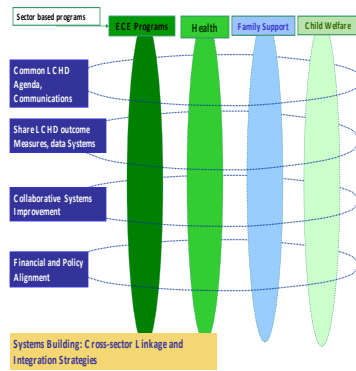
Roads: UCLA - GIS Data Portal

Transforming Early Childhood Community Systems (TECCS) National Learning Network 2012-2013

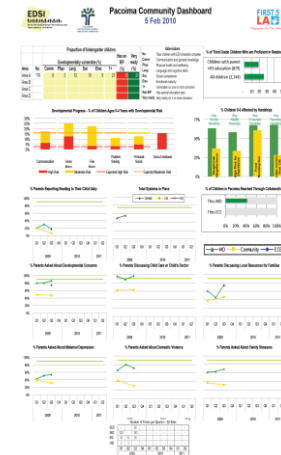
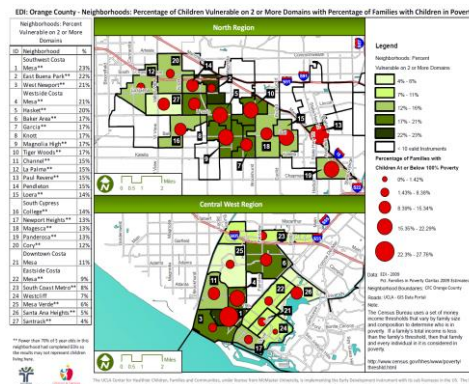
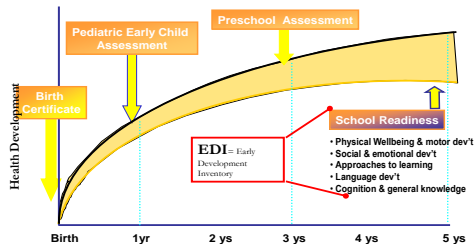


Transforming Early Childhood Community Systems (TECCS)

UCLA, UWW, States, Counties, Communities



Systematic Data Collection For tracking Health Development Trajectories



Big, Bold and Transformative- Change

- Child Health Community needs to commit itself to Child Health 2025 Initiative
- Adopt a 3.0 Strategic Framework for Research & Health System Transformation (children lead the way)
- Make the Unnecessary Catastrophic Loss Health Potential an unavoidable & inconvenient truth
- Child Health System Transformation Initiative— a innovation network designed to
 - Develop 3.0 delivery, organization, payment, HIT, & other innovations that will jolt the system forward
 - Prototype new models of finance & delivery

ACA and the Child Health System

Positives:

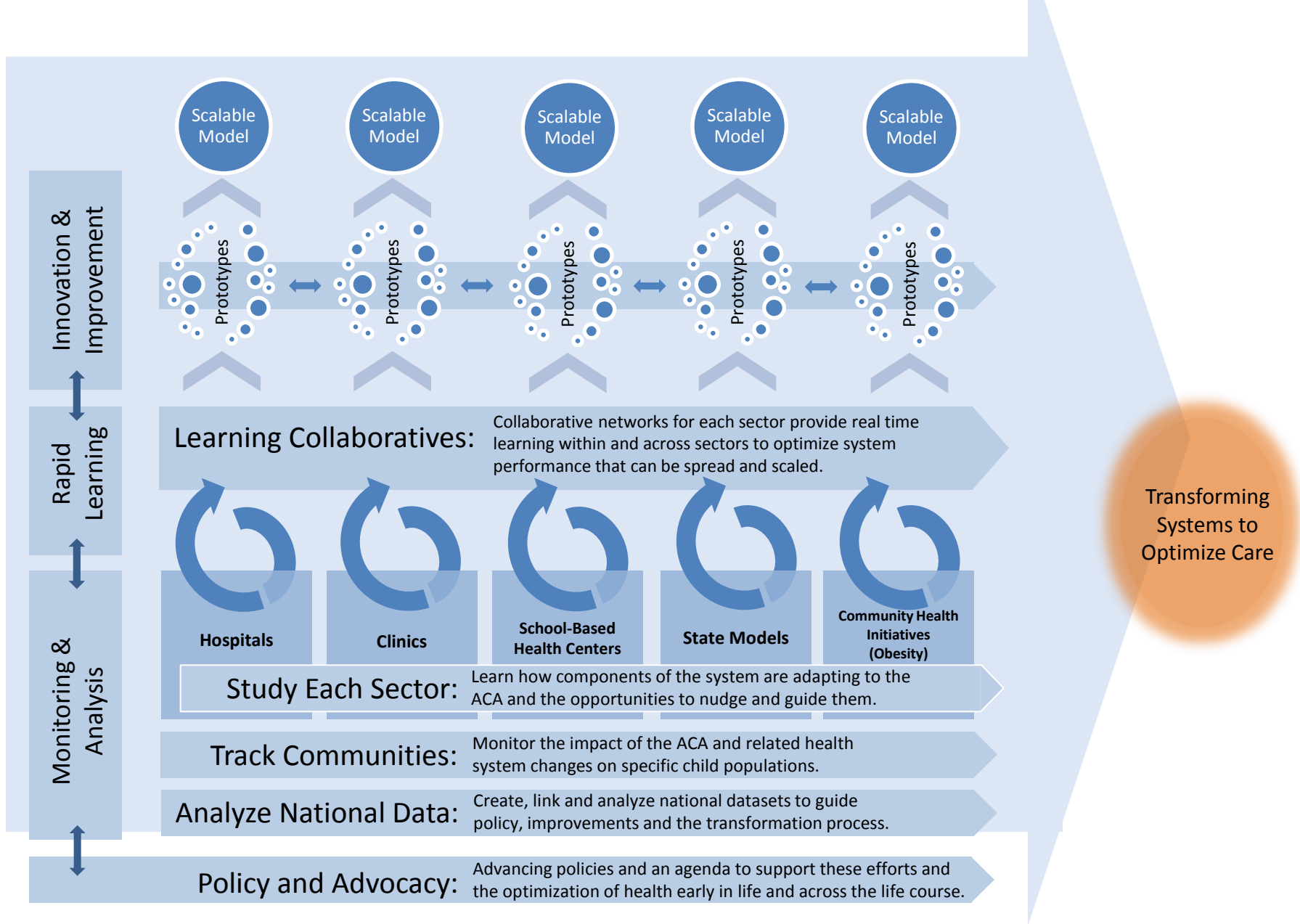
- Expansion of parent health insurance
- No lifetime caps
- No discrimination based on pre-existing conditions
- Better access to preventive care

Negatives:

- Breakdown of regionalized care
- Squeeze on children's health services
- Challenges for children's hospitals
- Child benefit packages
- Second, third order consequences

What is Needed

- Minimizing harm for children
- Maximizing gains for children
- Catalyzing transformation that optimizes health development of children and informs policy and practice nationally
- Leveraging all tools in ACA and related efforts and synergizing those resources for the child health community



Integrated Strategy to Achieve Child Health Systems Transformation

National Planning to date (last 6 months)

- Several Analytic Papers in the works
- Analytic Framework for understanding and interpreting the ACA changes, enabling innovation
- 3 National stakeholder meetings
- National Collaborative Network design
- Several Project being Developed & Launched
- Beginning to Develop Tools/Apps
 - E.g. - state-level checklist for using ACA for advancing children's health

CHSTI aims to produce:

- **Thriving Children's Hospitals** that are improving the quality care for CSHCN
- **Catalytic community health centers** developing Community Accountable Health System
- **3.0 SBHCs** prominently positioned, financially sustainable and serving as centers of community health
- **3.0 system prototypes** that demonstrate the feasibility of transformative change
- **States with enhanced capacity** to assure optimal implementation of the ACA and capability to drive innovations in the child health system
- **Momentum, hope, potential, transformation and change**