

Systems Thinking for Maternal and Child Health: Applications in Practice

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Faculty

**Donna J. Petersen, ScD, MHS
Senior Associate Vice President
USF Health
Dean
College of Public Health
University of South Florida
dpeters@health.usf.edu**

Objectives

- **Confirm the purpose of MCH**
- **Define “systems thinking” in an MCH context**
- **Appreciate the systems approach in MCH**
- **Apply systems thinking in practice**

What Is Health?

*Health is a complete state of physical,
mental and emotional well-being
and not merely the absence
of disease or infirmity.*

– WHO 1947

What Is Public Health?

*Public health is what we do collectively
as societies to create conditions in
which people can be healthy.*

– IOM 1988

What Is MCH?

*MCH is what we do collectively as
societies to ensure our future.*

*Our children are living messages sent
to a future we will never see.*

– African Proverb

What Is MCH?

- Title V of the Social Security Act has supported organized MCH efforts to assure the health of all mothers and children in every state and territory since 1935

Title V MCH

- No other public program has the breadth of responsibility nor the depth of accountability of MCH
- To assure the health of all mothers and children
- What does this entail?

Health Is Wellbeing

- Gallup tracks America's wellbeing every day on a scale from 0 (worst) to 100 (best)
- www.well-beingindex.com

Health Is Wellbeing

Americans currently:	66
- Life evaluation	47
- Emotional health	78
- Work environment	47
- Physical health	77
- Healthy behaviors	63
- Access to basic necessities	81

Health Is Wellbeing

- Physical health
 - Sick days in the past month, disease burden, health problems that get in the way of normal activities, obesity, feeling well-rested, daily energy, daily colds, daily flu, and daily headaches
 - Currently at 77

Health Is Wellbeing

- Emotional health
 - Smiling or laughing, learning or doing something interesting, being treated with respect, enjoyment, happiness, worry, sadness, anger, stress, and diagnosis of depression
 - Currently at 78

Health Is Wellbeing

- **Work environment**
 - Job satisfaction, ability to use one's strengths at work, supervisor's treatment (more like a boss or a partner), and if it is an open and trusting work environment
 - Currently at 47

Health Is Wellbeing

- **Healthy behavior**
 - Smoking, eating healthy, weekly consumption of fruits and vegetables, and weekly exercise frequency
 - Currently at 63

Health Is Wellbeing

- **Access**
 - To clean water, medicine, a safe place to exercise, affordable fruits and vegetables
 - Enough money for food, shelter, healthcare

Health Is Wellbeing

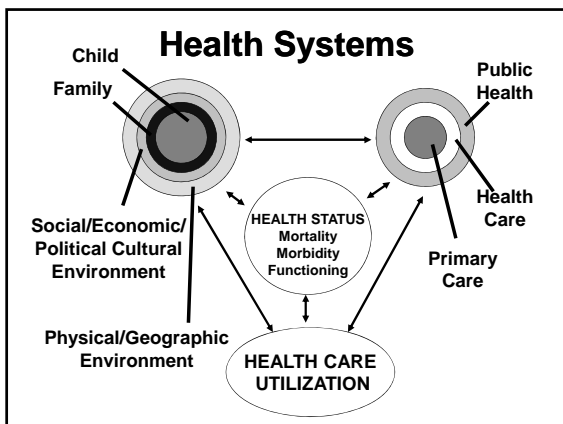
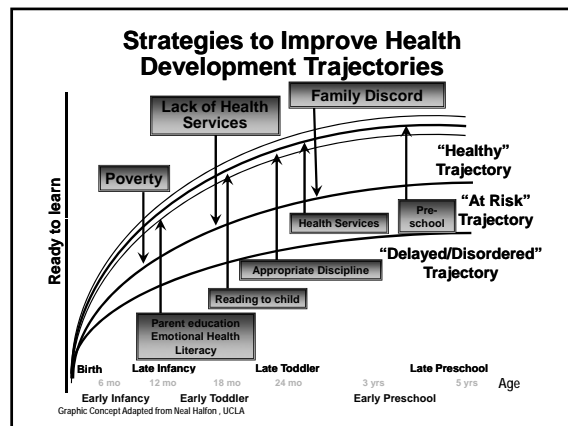
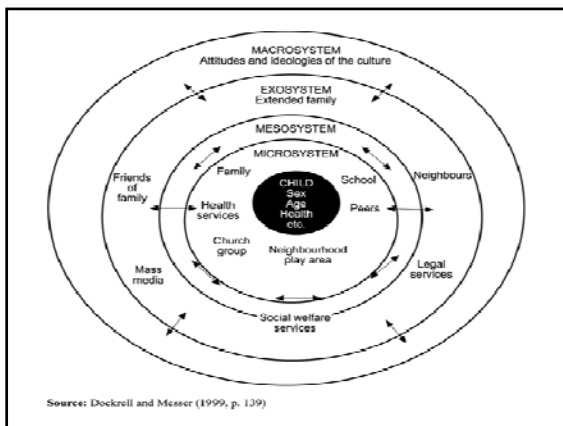
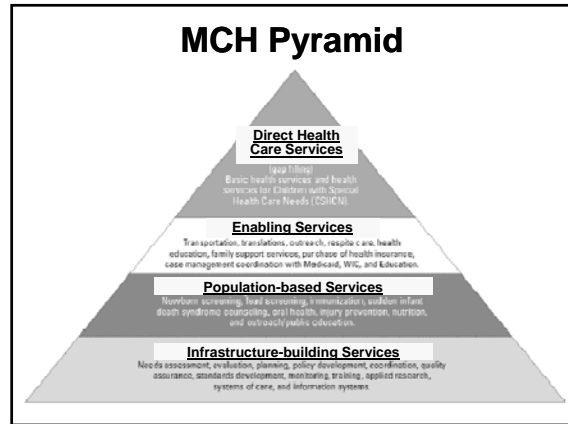
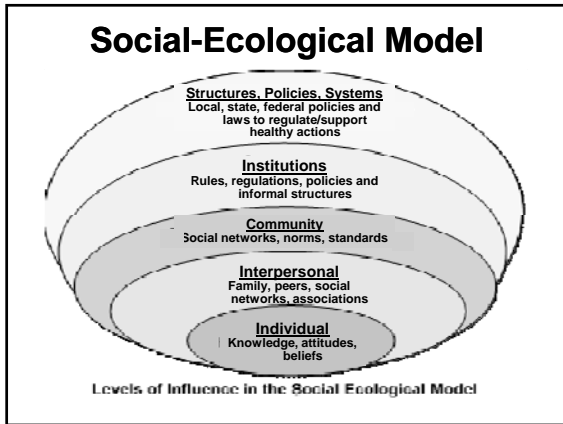
- Having health insurance, having a doctor, having visited a dentist recently
- Satisfaction with the community, the community getting better as a place to live, and feeling safe walking alone at night
- Currently at 81

Health, Wellbeing

- Taken together, it is obvious that we are dealing with a high level of complexity
- Not only are there myriad factors that affect health, many of them interact
- In MCH, it is even more complex because we are dealing with growth and development

Health, Wellbeing

- We are dealing with systems and as such, we must take a systems approach



- ### Systems in MCH
- There is very little, if anything, we do that does not exist or occur within a larger context
 - It is imperative that we build skills both to recognize and appreciate the system factors that impact on our populations *and* our efforts and to work at a systems level to effect positive outcomes

What Is a “System”?

- A regularly interacting or interdependent group of items forming a unified whole
- A group of interacting bodies under the influence of related forces
- An organization forming a network especially for distributing something or serving a common purpose
- A harmonious arrangement or pattern

Systems

- A set of inter-related components and the communication pathways between them . . . working together toward some common objective

Systems Thinking in a Life Course Approach

- Let’s think about some of the goals of MCH:
 - Healthy women having healthy babies
 - Children growing and developing optimally

Systems Thinking in a Life Course Approach

- Children and youth with special health care needs securing the services and supports necessary for the most positive outcomes possible
- Healthy adults benefitting from a healthy life trajectory beginning in utero

Healthy Women Having Healthy Babies

- Access to preconception health care
 - Well-woman care
 - Health promotion
 - Communicable disease treatment
 - Chronic disease management

Healthy Women Having Healthy Babies

- Family planning
 - Timing and spacing of pregnancy
- Pregnancy planning
 - Diet, exercise, folic acid, elimination of harmful substances

Preconception Care

- **What must we think about from a systems perspective?**
 - **Insurance coverage for preconception care**
 - **Provider availability and knowledge**
 - **Time off work, child care, transportation, translation**

Preconception Care

- **Supportive partner, family**
- **Knowledge about the importance of preconception care**

Healthy Women Having Healthy Babies

- **Optimal prenatal care**
 - **Early recognition of pregnancy**
 - **Timely and appropriate services**
 - **Health promotion**
- **Supportive environment**

Healthy Women Having Healthy Babies

- **Supportive macro environment**
 - **Insurance coverage for the service**
 - **Provider availability and knowledge**
 - **Work leave, child care, transportation, translation**
 - **Options for delivery**

Healthy Women Having Healthy Babies

- **Supportive micro environment**
 - **Supportive partner, family**
 - **Limited stress/fear, no violence**
 - **Support for lifestyle changes**

Healthy Women Having Healthy Babies

- **Insurance coverage for delivery**
- **Delivery at the site of choice**
 - **Care plan honored**
 - **Level of care matches level of risk**
- **Event-free, natural delivery**
 - **Medical intervention only when indicated**

Healthy Women Having Healthy Babies

- Support for breastfeeding
- Safe ride home to a safe environment
 - Safe sleep environment

Simple Goal, Complex System!

- MCH professionals have to operate at every level
 - Individual women and their families
 - Their community, work, school, home environments
 - The delivery system and all its attendant parts

Simple Goal, Complex System!

- The policy and social system
- To promote the best outcomes

System Is Fragile . . .

- And of course we know how fragile these systems have been and are
 - How difficult it is to obtain necessary coverage
 - How challenging it is to find the right provider

System Is Fragile . . .

- How daunting it is to manage all related needs
 - Housing, jobs, transportation, child care
 - Dental health, mental health, chronic disease management, substance abuse treatment

. . . And the Outcomes Confirm It

- Half of pregnancies remain unplanned
- Only 1 in 4 providers offer preconception care to the women they serve
- 30% of women do not receive adequate prenatal care

. . . And the Outcomes Confirm It

- 26% of low risk pregnancies delivered by Cesarean
- Maternal mortality 12.7 per 100,000 live births
- 8% low birth weight, 12% preterm babies
- 25% of babies still not breastfed

Systems Being Dismantled

- If it wasn't already an uphill battle, we now face the steady dismantling of much of what we have relied on
- Reproductive health programs under attack
- Primary care availability is shrinking

Systems Being Dismantled

- Support for related services is eroding
 - Social services, mental health, substance abuse, emergency shelter, domestic violence

Children Growing Optimally

- Access to primary and preventive care
 - Well-baby, well-child care
 - Immunizations
 - Developmental screenings
 - Episodic care

Children Growing Optimally

- Access to age-appropriate education
 - Infant and child care, pre-K programs
- Access to social, recreational, spiritual supports
 - Opportunities to be good at something, passionate

Children Growing Optimally

- What must we think about from a systems perspective?
 - Insurance coverage for health care
 - Provider availability and knowledge
 - Leave, child care, transportation, translation

Children Growing Optimally

- Supportive family, supportive community
- Parental knowledge about the importance of care
- Food security, housing
- Safe places to play, to recreate, to congregate

Children Growing Optimally

- Children's needs have many spokes
 - Health care, health promotion
 - Education
 - Social services
 - Community supports

Children Growing Optimally

- Child care
- Housing, transportation, food
- Public safety
- Libraries, playgrounds, parks

System Is Fragile . . .

- We have never succeeded in speaking with one voice when it comes to children
 - Children the focus but not a constituency
 - Dependent on adults and institutions for their welfare

System Is Fragile . . .

- Differing eligibilities, multiple applications
- Punished for the sins of their parents
- Poor children still stigmatized

. . . And the Outcomes Confirm It

- 6.4 infant deaths per 1,000 live births
 - 12.7 among blacks
- Over 10,000 children 1-14 die each year
- 3 million teens have dropped out of high school

. . . And the Outcomes Confirm It

- 8% of children are uninsured
 - 40% are on public insurance
- 22% of children do not receive preventive health care
- 16 million (20%) children are in food insecure homes

. . . And the Outcomes Confirm It

- 39.1 per 1,000 teens give birth and young people acquire half of all new STI's each year
- Adolescents continue to use tobacco, alcohol, other drugs, drink and drive, carry weapons, report being bullied or consider suicide at alarming rates

Systems Being Dismantled

- Health “reform”
- Education “reform”
- Cuts in social programs
 - When Congress votes to cut WIC
- Cuts in community programs

Systems Being Dismantled

- Increasing criticism of “the nanny state”
 - School breakfast programs, lunch option restrictions
- Immigration laws severely affecting children
 - Lose access to services, bullied by other children

Children with Special Health Care Needs

- Relatively small segment of the MCH population, why pay attention?
- Because if we can collectively get the system to work for these children and their families, it will work for everyone
- Most vulnerable to the vagaries and inadequacies of our “systems”

Children with Special Health Care Needs

- “Systems thinking” really started here
- No room for categorical approaches
- Actual “systems” have been designed to manage systems approaches for this population

Children with Special Health Care Needs “Systems”

- Child find and referral
- Case Management/Care Coordination
- Single applications
- Early intervention
- Medical Home
- Health Navigators

Children with Special Health Care Needs Systems

- Systems of care for children designed to assure continuity, coordination, comprehensiveness, community-orientation, family-centeredness, accessibility, cultural competency, developmental appropriateness and accountability

Children with Special Health Care Needs Systems

- Ultimately, these systems are intended to optimize all available services and supports in ways that minimize unnecessary effort on the part of families

Children with Special Health Care Needs Systems

- Access should be immediate and direct, providers should communicate, agencies should cooperate, coverage should be seamless, appeals processes should be clear

Systems Are Very Fragile . . .

- Difficult to achieve one medical home
- Competing privacy laws stifle the sharing of information that could be beneficial
- Parents still faced with myriad programs with differing eligibility requirements, different payment structures, different rules

Systems Are Very Fragile . . .

- Community supports not always available
- Out-of-pocket expenses remain high

. . . And the Outcomes Confirm It

- Nearly half of all children do not have access to a medical home
- Over 80% do not receive care in a family-centered, comprehensive coordinated system
- Nearly half of youth with SNCH are not receiving medical transition services

. . . And the Outcomes Confirm It

- Families report challenges in accessing preventive care, specialty care, dental care, mental health and other ancillary services

Systems Being Dismantled

- Support for public programs eroding
- Economic constraints limit program expansions, eligibility, benefits
- Shrinking workforce removes expertise, disrupts working relationships across programs
- Demand for services rising, program staff overwhelmed

MCH Important to Our Future

- The life course perspective shows us in no uncertain terms, that what happens to us along our life trajectory affects who we are and who we become as adults
- From hypertension to heart disease and diabetes to depression, rates of chronic illness are greater if we start behind and never catch up

MCH Important to Our Future

- MCH is a social and economic imperative!

Systems Approaches Critical!

- No one ever said this work was easy
- But we have critical tools
 - We are armed with federal legislation that has stood the test of time
 - We have a strong federal/state partnership that supports our individual and collective work

Systems Approaches Critical!

- We have the legacy of commitment and conviction left by our founders and so many great leaders over nearly 100 years of effort

Systems Approaches Tools

- An enduring and powerful mandate
 - “To assure the health of all mothers and children...”
- You don’t need money, this is your ticket to the table

Systems Approaches Tools

- Population and program data
 - Surveillance, needs assessments, asset maps, strategic plans, performance and accountability measures

Systems Approaches Tools

- The Social-Ecologic Model
 - Allows for the comprehensive analysis of factors that affect issues and outcomes of interest
 - Suggests the best level of action and influence

Systems Approaches Tools

- The power of partnerships and coalitions
 - Bringing interested (and sometimes not so interested) parties together to address complex issues, share resources, solve problems collaboratively, advocate, communicate

Systems Approaches Tools

- The simple elegance of preventive interventions
 - Population approaches are not only cost-effective but prolong life quality and well-being

Systems Approaches Tools

- **The Life Course imperative**
 - Not acting now not only has immediate impacts it has long-term sequelae
 - Damage done cannot be undone

Systems Approaches Tools

- **Leadership**
 - Knowing when to lead and when to follow
 - Servant leader role often the most successful
 - Do unto others...
 - Quid pro quo not always a bad thing

Systems Approaches Tools

- Knowing when to persevere and when to let go
 - Learn to give up approaches that aren't working
- Sharing your experiences with others
 - No one can afford to re-learn an old lesson

Systems Thinking First

- Every issue should be examined from a systems perspective
 - To select the appropriate level of intervention
 - To identify possible partners
 - To avoid missed opportunities
 - To anticipate “unintended consequences”

Systems Thinking Examples

- Little point in buying TV air time for PSA's when people get their “news” from Twitter
- Little point in encouraging consumption of fruits and vegetables in urban areas with no grocery stores or farmers markets

Systems Thinking Examples

- Little point in advocating policy solutions when the rhetoric is so anti-government
- Little point in creating referral networks when providers aren't accepting publicly insured patients

Systems Thinking Examples

- Reducing inappropriate Emergency Room use by imposing co-payments
 - Should work, right? Here's why not:
 - People who go the ER for non-emergent care typically have no other source of care

Systems Thinking Examples

- The ER is usually on public-transportation, open 24 hours a day and is a trusted source of care
- People who go to the ER for non-emergent care are overwhelmingly low income and don't have the money for the co-payment

Systems Thinking Examples

- It costs more for the institution to collect the co-payment than would ever be recovered

Systems Thinking Examples

- Achieving longer inter-pregnancy intervals
 - Easy? Here's why not:
 - Insurance coverage not available for pre/inter-conception care
 - Family planning resources dwindling

Systems Thinking Examples

- Providers don't stress the importance of waiting beyond the immediate postpartum period
- Women don't recognize the health implications of short intervals – tend to view child spacing in social terms

Systems Thinking Examples

- Implementing evidence-based home visiting
 - Guaranteed success? Here's why not:
 - Insufficiency of resources for a population effort

Systems Thinking Examples

- **MUST** consider local circumstances, population being served, skill level and training of visitors, data protocols for assessment, intervention, evaluation, human nature
- Referral options limited
- Transience of population, distrust of the system

Promoting Health and Well-being Demands Systems Approaches

- In the beginning we talked about “health” being a function of physical health, emotional health, health behaviors, work environment and access to basic necessities

Promoting Health and Well-being Demands Systems Approaches

- This is true for the MCH population as well and perhaps more importantly, as goes the MCH population, so goes the future adult population

Advanced Systems Thinking

- The field of systems thinking is evolving
- MCH has, as always, a head start
- We “get” this but we have to create systems of systems thinkers to do the work that needs to be done in our ever-changing political, social, economic and physical environment

Advanced Systems Thinking

- We always recognize the importance of partnerships – now more than ever

Our Future Depends on Our Success

- We can throw up our hands in despair and prepare to write “I told you so” stories ten years from now
- Or we can look at those systems models and together with our systems colleagues find the best ways to intervene and hopefully reverse the downward spirals

**Our Future Depends
on Our Success**

- We're counting on you!

**Donna J. Petersen, ScD, MHS
Senior Associate Vice President
USF Health
Dean
College of Public Health
University of South Florida
dpeters@health.usf.edu**