

Rethinking MCH: The Life Course Model as an Organizing Framework

Concept Paper

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Amy Fine and Milton Kotelchuck

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Preface

As the Maternal and Child Health Bureau (MCHB) celebrates its 75th Anniversary, this is an appropriate time to review and celebrate the Nation's many successes in maternal and child health (MCH); as well as to identify health conditions and issues where challenges remain. This is an opportune time to use new scientific knowledge and approaches to promote better health for all, and to finally begin to decrease health disparities. And now is the time to systematically assess whether current policies, programs and practices provide the most effective approaches to addressing both persistent and emerging needs of the MCH population, and if not, to change them.

MCHB has turned its attention to better understanding life course theory and its implications for maternal and child health. By combining a focus on health equity and social determinants with an updated understanding of how biology and environment interact, life course theory offers a rich and layered understanding of how health develops over a life time and across generations. Equally important, life course theory provides the opportunity to blend population health and medical science, to better serve the Nation's women, children and families.

This concept paper was commissioned by MCHB to provide a mutual understanding about MCH life course from which the broad MCH community can begin to shape its public health approaches for the 21st century. The paper clarifies and synthesizes the best thinking on MCH life course and outlines how the theory might be used to frame MCHB's upcoming strategic planning process. The paper provides a series of examples for how a life course perspective might be incorporated into MCH research, programs, policies and partnerships to optimize health outcomes and reduce disparities across the population. These ideas are offered as a starting point to jump-start a national dialogue. It is hoped that the suggestions in the paper will trigger a rich and fruitful interchange that will help MCHB and its many partners move from life course theory into life course practice. MCHB celebrates the 75-year legacy and inspiration of Title V and the Children's Bureau and is looking forward to working together to shape yet another 75 years of improved health and well-being for MCH populations.

Peter C. van Dyck, M.D., M.P.H.
Associate Administrator for
Maternal and Child Health

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Purpose of this Concept Paper

This concept paper is a first step in assisting the Health Resources and Services Administration, Maternal and Child Health Bureau explore how life course theory (LCT) might be used as a strategic planning framework, guiding the work of MCHB, its grantees, and partners over the next 5 years.

While there is a substantial and growing literature and research on life course theory, the translation of theory and research into practice is far less developed, and much of this translation has focused on particular points in the life course (e.g., pregnancy or early childhood). What MCHB is trying to achieve is a framework – and eventually an action plan – that promotes optimal health and healthy development across the lifespan, as well as across generations, and that promotes equity in health across communities and populations. While these are fairly straight-forward goals the translation of life course theory into new and innovative practices, programs and policies is challenging. To achieve its promise, this transformation will likely take several iterations and an ongoing, collaborative effort by a broad “MCH learning community”. This paper argues that while obtaining high quality health care is very important in maintaining and improving health, achieving optimal health for all goes beyond medical/clinical care and beyond current public health practice. Four core life course concepts are identified – timeline, timing, environment and equity – that can be used to redirect public health practice for greater impact. The paper briefly introduces the implications of these concepts for MCHB strategic planning. Further, it proposes that in order to effectively advance a life course approach, MCHB will need to develop a strategic agenda for change, working simultaneously in three broad arenas: (1) knowledge base, (2) program and policy strategies, and (3) political will. Finally, examples provided throughout the paper highlight how a shift to a life course framework might be applied in each of these areas.

Section I: Introduction to Life Course Theory

Key Concepts

Life course theory (LCT) is a conceptual framework that helps explain health and disease patterns – particularly health disparities – across populations and over time. Instead of focusing on differences in health patterns one disease or condition at a time, LCT points to broad social, economic and environmental factors as underlying causes of persistent inequalities in health for a wide range of diseases and conditions across population groups. LCT is population focused, and firmly rooted in social determinants and social equity models. Though not often explicitly stated, LCT is also community (or “place”) focused, since social, economic and environmental patterns are closely linked to community and neighborhood settings.

While LCT has developed in large part from efforts to better understand and address disparities in health and disease patterns, it is also applied more universally to understand factors that can help everyone attain optimal health and developmental trajectories over a lifetime and across generations. For the field of Maternal and Child Health, LCT addresses two separate but related questions:

- Why do health disparities persist across population groups, even in instances where there has been significant improvement in incidence, prevalence and mortality rates for a specific disease or condition across all groups?
- What are the factors that influence the capacity of individuals or populations to reach their full potential for health and well-being?

Based on growing and converging scientific evidence from reproductive health sciences, developmental and neurosciences, and chronic disease research, LCT offers several key concepts to address these two fundamental questions:

- **Pathways or Trajectories** – Health pathways or trajectories are built – or diminished – over the lifespan. While individual trajectories vary, patterns can be predicted for populations and communities based on social, economic and environmental exposures and experiences. A life course does not reflect a series of discrete steps, but rather an integrated continuum of exposures, experiences and interactions.
- **Early Programming** – Early experiences can “program” an individual’s future health and development. This includes prenatal programming (i.e. exposure in utero), as well as intergenerational programming (i.e., the health of the mother prior to conception) that impact the health of the baby and developing child. Adverse programming can either result directly in a disease or condition, or make an individual more vulnerable or susceptible to developing a disease or condition in the future.
- **Critical or Sensitive Periods** – While adverse events and exposures can have an impact at any point in a person’s life course, the impact is greatest at specific critical or sensitive periods of development (e.g., during fetal development, in early childhood, during adolescence, etc.).
- **Cumulative Impact** – Cumulative experiences can also “program” an individual’s future health and development. While individual episodes of stress may have minimal impact in an otherwise positive trajectory, the cumulative impact of multiple stresses over time may have a profound direct impact on health and development, as well as an indirect impact via associated behavioral or health service seeking changes. (This concept of cumulative impact is also referred to as “weathering” or “allostatic load”.)
- **Risk and Protective Factors** – Throughout the lifespan, protective factors improve health and contribute to healthy development, while risk factors diminish health and make it more difficult to reach full developmental potential. Thus, pathways are changeable. Further, risk and protective factors are not limited to individual behavioral patterns or receipt of medical care and social services, but also include factors related to family, neighborhood, community, and social policy. Examples of protective factors include, among others: a nurturing family, a safe neighborhood, strong and positive relationships, economic security, access to quality primary

care and other health services, and access to high quality schools and early care and education. Examples of risk factors include, among others: food insecurity, homelessness, living in poverty, unsafe neighborhoods, domestic violence, environmental pollution, inadequate education opportunities, racial discrimination, being born low birthweight, and lack of access to quality health services.

Stated more simply, key life course concepts can be summarized as follows:

- Today's experiences and exposures influence tomorrow's health. (Timeline)
- Health trajectories are particularly affected during critical or sensitive periods. (Timing)
- The broader community environment—biologic, physical, and social—strongly affects the capacity to be healthy. (Environment)
- While genetic make-up offers both protective and risk factors for disease conditions, inequality in health reflects more than genetics and personal choice. (Equity)

These four key concepts – reflecting timeline, timing, environment, and equity – are fundamental to understanding and applying LCT.

Critiques of Life Course Theory

While there is both growing evidence and enthusiasm for LCT, critiques have also been voiced. Two critiques in particular stand out. First, the current framing can be interpreted as being fatalistic or excessively deterministic: that is, holding out little or no hope that individuals who have experienced adverse events or exposures early on might attain optimal health and well-being. A second related critique is that the concepts of early programming and critical or sensitive periods lead to “front loading” of interventions around pregnancy and early childhood, and that LCT tells us little about the value of interventions with other age groups, at different life stages.

As LCT continues to evolve, one way of addressing these critiques is to place greater emphasis on the concept that the development of health over a lifetime is an ongoing, interactive process and that pathways are changeable. More specifically, an individual's health status results from the interaction throughout life of genes, experiences and exposures, and individual choices. It is possible, therefore, to intervene to improve protective factors and reduce risk factors throughout life. Thus, it would be useful to add to the above, two more concepts:

- ***Interactive processes*** – The development of health over a lifetime is an interactive process, combining genes, environments and behaviors.

- ***Lifelong development/lifelong intervention*** – Throughout life and at all stages, even for those whose trajectories seem limited, risk factors can be reduced and protective factors enhanced, to improve current and subsequent health and well-being.

Section II: Implications of Life Course Theory for MCH Public Health

Public health is a logical home for LCT since the mission of public health includes improving and protecting the health of the population, eliminating health disparities and promoting health equity across population groups, and building healthy communities (to better promote health and prevent disease). Historically, some branches of public health – including Maternal and Child Health (MCH) – have been leaders in addressing social and environmental factors that affect health, a focus very much in keeping with LCT.

Despite this broader historical focus on social and environmental roots of illness and disability, however, currently, much of public health practice seeks to improve health by: increasing access to medical care, improving the quality of health care services (while reducing costs), changing individuals’ behaviors, and building health service systems that can meet the growing need for treatment of chronic illness and other health conditions, even among the young. In addition, a substantial portion of the funding for public health is targeted to specific illnesses, injuries, or conditions (e.g., HIV/AIDS, traumatic brain injury, autism, obesity, etc.). Further, while MCH includes a focus on promoting healthy development, there is limited focus on health trajectories across the lifespan, or on continuities from child to adult to aging adult. Instead, much of MCH public health practice today utilizes a stage-of-life framework; that is, discrete programs for women of reproductive age and for children at different ages and stages.

While all of these approaches are important and clearly impact health, they also have their limitations. More access to medical care alone will not address the social, economic and environmental factors that lead to disparities in the onset and prevalence of disease; disease-by-disease funding makes it more difficult to focus on and address common causal pathways across conditions; and stage-by-stage services can result in missed opportunities and inefficient use of resources. In short, LCT suggests that new approaches are needed.

LCT posits that interventions that reduce risks and increase protective factors can change the health trajectory of individuals and populations. This theory of change is not inconsistent with the current practice of medicine and of public health. However, LCT greatly expands the opportunities (and some would say, the obligations) for intervention to include a much broader set of venues and partners, over a much longer timeline, and it suggests the need to rethink and revise some of the current strategies. More specifically, LCT suggests the need to: refocus resources and strategies for a greater emphasis on early (“upstream”) determinants of health; incorporate earlier detection of risks coupled with earlier intervention; and promote protective factors while reducing risk factors at the individual, family and community levels. It also suggests the need to shift from discrete and episodic services to developing integrated, multi-sector service systems that become lifelong “pipelines” for healthy development.

Finally, LCT suggest the need to complement a focus on individual conditions or body systems, with a whole-person, whole-family, whole-community systems approach. These and other implications of LCT are discussed in greater detail in Section III of this paper.

Section III: Using Life Course Theory as a Framework for MCHB Strategic Planning

In general, the existing literature on life course theory is focused on causal analysis; that is, identifying and describing influences on health and health disparities across populations. The task of this paper is to move from causal analysis to an actionable strategic planning framework for MCHB. The discussion that follows starts with recommendations for goals and definitions, moves to four key concepts to guide MCHB planning, and ends with a discussion of the relationship of a life course framework to the MCHB Services Pyramid.

Goals and Definitions

Good strategic planning starts with clear and understandable goals. In general, MCHB and other public health agencies have established broad, aspirational goals, coupled with sub-goals or strategies that further define and direct program planning.

In keeping with the roots of LCT, two overarching, aspirational goals for the MCHB Strategic Plan are proposed:

- To optimize health across the lifespan, for all people; and
- To eliminate health disparities across populations and communities.

These goals assume a broad definition of health, with the understanding that healthy development is an interactive process that continues throughout life. The Institute of Medicine, National Academy of Sciences definition of children's health provides a good starting point for the MCHB Strategic Plan:

Children's health is the extent to which individual children or groups of children are able or enabled to (a) develop and realize their potential, (b) satisfy their needs, and (c) develop the capacities that allow them to interact successfully with their biological, physical, and social environments.¹

This definition could be revised for all populations across the lifespan, as follows:

¹ *Children's Health, The Nation's Wealth*. National Academies Press, 2004.

Health is defined as the extent to which individuals or population groups are able or enabled to (a) develop and realize their potential, (b) satisfy their needs, and (c) develop the capacities that allow them to interact successfully with their biological, physical, and social environments.

Because LCT speaks to the importance of “place” – that is, the physical, social, and economic environments in which people live and develop – the Strategic Plan should include a definition of a “healthy” or “health-supporting” community. As a starting point, the World Health Organization’s definition should be considered:

WHO defines a healthy city or community as: “... one that is continually creating and improving those physical and social environments and expanding those community resources that enable people to mutually support each other in performing all the functions of life and in developing to their maximum potential.”²

Key Life Course Theory Concepts: Implications for Strategic Planning

The four key concepts noted in Section I – timeline, timing, environment, and equity – all have implications for strategic planning and can be used to guide the development of MCHB’s sub-goals, key strategies, and guiding principles. To clarify further:

- **Timeline**
 - **What the theory tells us:** LCT holds that health develops over a lifetime, with health improving or diminishing based in part on exposures to risk and protective factors. LCT emphasizes the importance of cumulative and longitudinal impacts both within an individual’s life span and across generations.
 - **Implications for strategic planning:** Strategic planning should emphasize linking or integrating health services and systems across the life span and across generations in order to maximize protective factors and minimize risks. This includes a greater focus on health promotion from the youngest ages forward. It also includes a focus on developing services and systems that provide routine, early identification of health risks and early intervention to address and minimize the impact of risks. The inter-generational dimension of timeline suggests that special attention be placed on the relationship between the health of parents and the health of their children, and that planning should include strategies that simultaneously address the needs of both. The role of grandparents in influencing health and well being should also be considered. “Timeline” speaks to the need for both temporal integration (i.e., linking services across the lifespan and across generations) and vertical integration (i.e., making sure health promotion and primary prevention are valued and appropriately resourced as part of the broader health system).

² Hancock, T. and L. Duhal. *Promoting Health in the Urban Context*. WHO Healthy Cities Papers No.1, 1988.

- **Timing**
 - **What the theory tells us:** LCT points to the importance of the earliest experiences and exposures (early programming) and of critical or sensitive periods throughout life, in shaping the health of individuals and populations. LCT builds on the expanding science of human development to identify periods in which intervention can be maximized.
 - **Implications for strategic planning:** Strategic planning should incorporate a focus on assuring the availability of services and supports during critical or sensitive periods throughout the lifespan. To address the critique that LCT is too deterministic, the concept of critical or sensitive periods should be explicitly expanded or enhanced to include periods or stages in which there is a heightened opportunity to build or strengthen health; for example, during pregnancy, early childhood (and early parenthood), adolescence, young adulthood, the peri-menopausal period; early years of retirement, etc. While all critical and sensitive periods are important, “early programming” does speak to the need to focus substantial attention on the earliest periods of development, including interventions that help assure a healthy pregnancy for mother and baby and services and supports that help assure the healthy development of children – and their families – during the period of early childhood. The case can also be made that making sure children, adolescents and young adults are healthy is a form of very early intervention, paving the way for healthy births and healthy families for the next generation.
- **Environment**
 - **What the theory tells us:** LCT recognizes that physical, social, and economic environments play an important role in shaping health and disease patterns across populations and communities. Environment is broadly defined to include not only physical factors (e.g., safe housing, areas for recreation, availability of nutritious foods, clean air and water, etc.), but also social and economic factors (e.g., racism, poverty status of families and communities, job opportunities, community or family violence, maternal stress, etc.), and the capacity of the community to engage in change.
 - **Implications for strategic planning:** Environment speaks both to service systems and to community-based initiatives that go beyond services. As a starting point, LCT suggests that planning should include strategies that help link women, children and families to other service systems that can address environmental factors such as employment services, housing, family support programs, etc. The health system does not need to provide a full array of services that address environmental contributors to health, but it should be responsible for linking people receiving health services to additional services and supports, as needed. Second, at the community and State level, planning should include a focus on promoting integrated, multi-sector service systems and assuring that those systems are easily accessed. Finally, a focus on the environment suggests the need to go beyond services to incorporate population and place-based community strategies aimed at changing environments, and addressing root cause determinants of health, i.e., the fundamental life circumstances that can predispose individuals and populations toward health or disease. These strategies can complement health

interventions that are aimed at changing individual behavior or that provide treatment to individuals for specific conditions. The environmental focus of LCT suggests the need to incorporate a whole-person, whole family, and whole community approach. This will require alliances that may go beyond the usual reach of MCH/public health (e.g., with land use planners, parks and recreation, housing developers and public housing authorities, etc.), and it requires partnering with community residents in ways that enable communities to effect change. In sum, environment speaks to the need for horizontal linkage and integration between health, other service sectors, and other systems; and it speaks to the need to go beyond services to change the environments in which people live and develop.

- **Equity**

- **What the theory tells us:** At its very core, LCT seeks to explain health disparities across populations and communities. As noted above, LCT holds that marked and persistent differences in health across populations and communities cannot be explained solely in terms of genetic make-up or individual choices, but rather reflect the impact of broader societal and environmental conditions over time. LCT tells us disparities in the life circumstances of population groups within our society (poor vs. rich; Black vs. White, vs. Hispanic vs. Asian vs. Native American; immigrant vs. U.S.-born; etc.) lead to disparities in health across these same groups.
- **Implications for Strategic Planning:** LCT speaks to the importance of focusing on health equity from the perspective of population and place and tells us that broad population-level and systems-level changes are needed. This means going beyond tracking disparities, to identify and address root causes of disparities at the population level. It also implies using an “equity lens” to continually assess the potential for differential impact of public health interventions, even those that are evidence-based. Specifically, interventions that focus on individual behavior changes need to take into account the broader social and environmental context in which people live. For example, if public health resources are devoted to changing dietary practices to increase fruit and vegetable consumption, the intervention will have a different impact on populations living in “food deserts” compared to populations living in areas with ample availability of fresh fruits and vegetables. Similarly, resources used to place parks and recreation areas in “safe neighborhoods” may further disadvantage populations living in poor neighborhoods with high crime rates. While some communities and States are experimenting with different ways to approach MCH disparities at the population level, most are still in the piloting phase of program development. Strategic planning should reflect the need to systematically support further innovation and to track and report on program impact for children and families.

In applying LCT as a strategic framework, it is important to note that much of the current work of MCHB is not only consistent with, but also has contributed to LCT. MCHB will want to build on its current strengths and work from the platforms in which it has considerable expertise. Therefore, what is needed

is not a wholesale reinvention of MCH or MCHB, but rather rethinking, reorienting, and eventually transforming key aspects of its data systems, programs, policies, and partnerships to further develop and promote a life course approach to maternal and child health. The commentary provided above regarding implications for strategic planning can be used to guide the development of sub-goals, key strategies and guiding principles for MCHB's revised Strategic Plan.

LCT and the MCH Pyramid of Health Services

One key component of the current MCHB Strategic Plan is the MCH Pyramid of Health Services, which has been used for more than a decade to describe the range and broad categories of MCH Services provided or supported by MCHB and its partners. The pyramid portrays a hierarchy of needed services, starting with Infrastructure Building Services (forming the base of the pyramid, and the foundation for all MCH services), followed by: Population-Based Services (universal services available to the entire MCH population); Enabling Services (which assist women, children and families in accessing needed services within the health systems and beyond); and Direct Health Care Services (gap-filling, direct clinical care for those with limited or no access to needed services). See Figure 1 below.

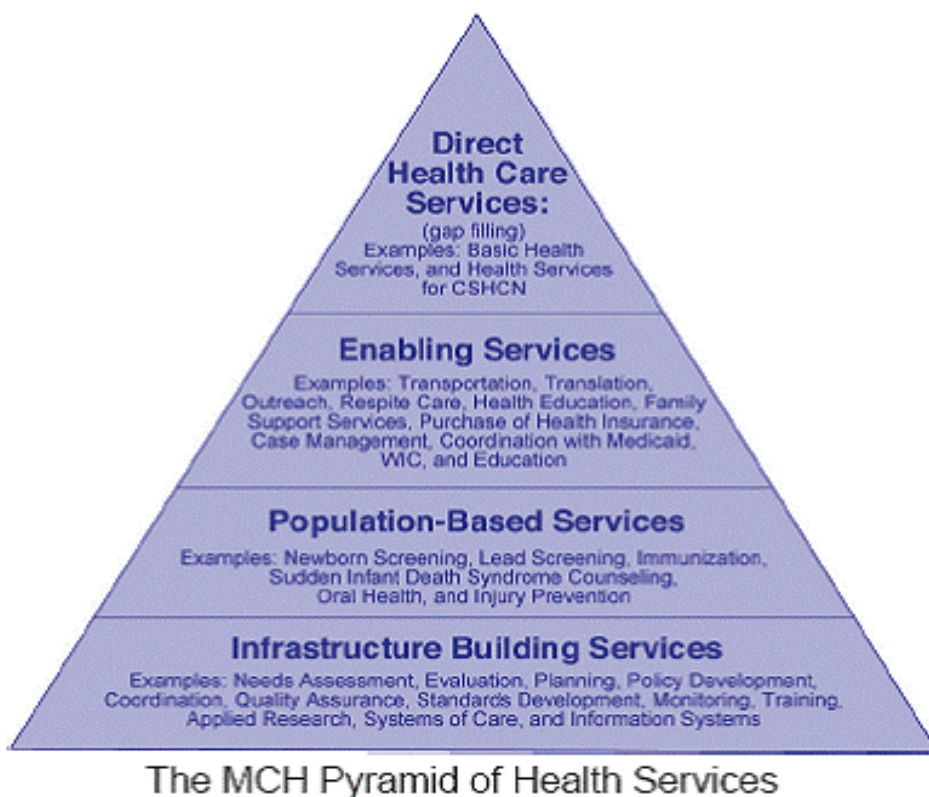


Figure 1

LCT is consistent with the MCH Pyramid of Health Services (and *vice versa*); however, life course theory provides a broader framework for strategic planning and program activities. Using the LCT frame would expand and perhaps shift some of the specific services noted at each level of the MCH Pyramid. For example, under Infrastructure Building Services, a life course perspective might expand policy development to encompass policies related to land use, housing, parks and recreation, etc.; and Infrastructure Building activities related to “systems of care” might place greater emphasis on *multi-sector* systems of care. Infrastructure Building might also include enhancing community capacity. Population-Based Services might emphasize routine developmental screening at the community level (such as use of the EDI – Early Development Index), and more prevention services (for example, population-based services related to nutrition and exercise). Enabling Services might focus on the development of referral /linkage services to assure timely linkage to a range of needed services within and beyond the health system and coordination between health and other service sectors (e.g., health navigator systems, centralized resource and referral centers, or other centralized “health utilities”). Finally, gap-filling Direct Health Care Services could place a greater emphasis on continuity of care across the lifespan, routine screening for family social and economic circumstances, and more health promotion activities.

Because LCT points to the need to reframe and reorganize systems and services to emphasize prevention, and to increase integration across systems of care and across the lifespan, using LCT to frame the MCHB Strategic Plan may well result in a greater emphasis on the foundational levels of the MCH Pyramid, especially Infrastructure Building and Population Based Services.

One aspect of LCT that is not well-represented in the MCH Pyramid is the longitudinal perspective. As currently depicted, there is no temporal dimension to the pyramid, simply a listing of representative MCH activities within each level. However, the pyramid could be placed within a larger graphic that depicts connections across the lifespan.

Finally, it would be useful to consider how the pyramid of services might fit with environmental change that goes beyond services to include community engagement and capacity building. These kinds of changes could be addressed either by including them as part of the Infrastructure Building level of the pyramid, or by developing a graphic that places the pyramid of services on top of a broader level of non-service MCH environmental changes.

Section IV: Developing an Agenda for Change

The previous section of this paper focused on using key life course concepts to guide the development of the MCHB Strategic Plan. The suggested goals, definitions and guiding concepts – timeline, timing, environment and equity – provide a means of reshaping the content of the plan to reflect life course theory.

This section of the paper focuses on a complementary aspect of the planning process: developing a strategic agenda for change. If the shift to a life course framework is to have a significant impact on MCH outcomes, the new plan must begin to transform the way MCHB and its partners do their work, combining the most successful current efforts with new ideas, partners and approaches.

A life course change agenda will require working strategically in three broad arenas: (1) further developing the knowledge base related to life course and healthy development; (2) rethinking, redirecting, and integrating program and policy strategies; and (3) working with a wider range of stakeholders and other audiences to develop the political will needed to build and sustain a life course approach to MCH. While work in each area is important, these are not stand-alone approaches. Instead, MCHB and its partners will need to work simultaneously in all three areas to successfully and significantly improve maternal and child health and well-being throughout the life course.

These three broad arenas for change – knowledge base, program and policy strategies, and political will – were selected based on several considerations. First, they take into account MCHB’s history and current organizational capacities/platforms for change. In addition, they encompass the core public health functions recommended by the Institute of Medicine: assessment, assurance and policy development.³ Thus, they are consistent with broad thinking of national experts regarding the future of public health. Finally, they are consistent with the Richmond-Kotelchuck model for health policy change,⁴ which has been embraced as a strategic planning framework by a variety of public health stakeholders.

While it is not the role of this paper to provide a fully fleshed out strategic agenda for change, the examples below provide a starting set of enhancements and new directions that might be explored in each area.

- **Knowledge Base**

- **What’s Needed:** There is general agreement among those working on MCH life course strategies that the knowledge base around both concept and practice needs to be further strengthened. Among the key areas to be addressed: (1) building and disseminating the scientific evidence base supporting the need for a life course approach; (2) documenting and widely disseminating information on what programs and policies improve life course trajectories; (3) developing new standards and measures that better capture key life course concepts (i.e., timeline, timing, environment and equity); (4) developing new methodological approaches for ongoing monitoring of longitudinal impact; and (5) incorporating new LCT knowledge into training and continuing education programs to move the MCH field forward.

³ Future of Public Health. Institute of Medicine. Washington DC: National Academy Press, 1988. The Future of the Public’s Health in the 21st Century. Institute of Medicine. Washington DC: National Academic Press, 2003.

⁴ Richmond JB, Kotelchuck M. The effects of the political process on the delivery of health services, In McGuire CH et al. Handbook of Health Professions Education. San Francisco: Josey-Bass, 1983; 386-404.

- **Specific Examples:** By initiating both a life course research network and a life course Web site, MCHB has already begun to develop some of the infrastructure needed to build and disseminate the scientific evidence base related to a life course approach. MCHB might also engage its research network in identifying, developing, testing, and promoting new standards, measures and tools that better capture and monitor progress along the four key life course dimensions or concepts (i.e. timeline, timing, environment and equity). For example, MCHB and its research network might further explore and promote the use of the Early Development Index, a tool that can provide rich data on the relationship between environment (community services and resources, poverty level, etc.) and developmental outcomes (school readiness) at the population level. Other examples of measures and tools that might be explored and promoted include: child health impact assessments (which measure social and environmental impacts on child health of proposed legislation and large community building projects); common results frameworks (which encourage cross-sector coordination to achieve shared results); and cross-sector and/or longitudinal analyses to look at social return on investment (for example, the Washington State Institute for Public Policy analytic framework to help guide public investment in health and social programs).

Knowledge Base development requires not just measures and tools, but new data systems, integration of existing data systems, and perhaps the creation of longitudinally linked data systems that can track both individual and community health trajectories or outcomes over time. MCHB could encourage existing infant and child health data surveys to collect more longitudinal information and perhaps more information on program integration. In addition, MCHB might also develop a data base of State level policies and programs that could link to MCHB's surveys. New data systems could be developed to capture information too often not collected, such as information on community capacity or cross-generational or "family" health. The current orientation of discrete, "age siloed" data bases could be transformed by developing modules of common questions to be utilized across data bases. The National Children's Study, a planned longitudinal data platform, will provide numerous new opportunities for enhancing MCH life course research. Finally, training and continuing education programs could work closely with developers of new and revised data systems to assure that a new generation of evaluators, program developers and policy makers can effectively analyze and use life course data sets to improve health and well-being.

- **Program and Policy Strategies**

- **What's Needed:** Translating life course theory into concrete programs and policies is perhaps the most difficult of the life course challenges. Multiple interventions and policies at a variety of levels across multiple time periods are needed. A thoughtful, integrated set of MCH and MCHB programs and policy strategies could provide an opportunity to dramatically improve health and well-being across the life course and across the population. While many individual MCH programs and policies can and do

improve the health of individuals served, more needs to be done to address alarming new trends in chronic diseases and disorders, and to reverse long-standing disparities in health and well-being. Life course theory implies the need to go beyond individual programs and policies, aimed at individual diseases and disorders, in order to promote and optimize health across generations and communities. LCT instead suggests the need to consciously build a program and policy “pipeline for healthy development”; that is, a continuum of services and supports that promote optimal health and development from birth throughout the lifespan, and from the birth of one generation to the next. This requires integration of services and supports that is longitudinal (over time), vertical (within the health sector) and horizontal (across health and other sectors). It also requires programs and policies that start to address root causes of disparities in health by helping to reshape the conditions in which people live and develop.

- ***Specific examples:***

With regard to program strategies, MCHB might begin by reviewing each of its programs with an eye toward better incorporating the key life course concepts, and examining current programming gaps, duplications or inefficiencies (such as multiple, unconnected care-coordination or home visitation programs) across the lifespan, in order to identify areas for program development and coordination.

Second, MCHB could rethink and redirect program work to focus on an integrated (or inter-related) “portfolio of programmatic strategies”, rather than on a series of discrete, stand-alone programs. As a starting point, MCHB might develop a set of outcomes or results that it hopes to achieve for the populations it serves, then working backward from these results it could begin to group programs that will help to achieve desired results. This kind of life course results framework is already being used by a number of state Early Childhood Comprehensive Systems (ECCS) grantees to effectively develop an integrated program portfolio (e.g. The Colorado Framework). MCHB could build on these successful initiatives to fund other multi-sector, systems-building initiatives that address different life stages, such as middle childhood, early adolescence, or early parenting. And rather than keeping these as age-siloed systems, every effort should be made to include linkages between systems developed for one age group and the next.

MCHB could also start to link its programs with non-health sector programs on several levels: At the Federal level, as with the new Home Visiting initiative, MCHB could begin to partner with other Federal agencies to develop new programs or initiatives that address multiple determinants of health. Likely candidates might be the Departments of Housing and Urban Development (HUD), Education (ED), Labor (DOL), or Justice (DOJ). Partnering with these and other non-health agencies could help address the social “root cause” determinants of health and could begin to address issues related to equity. At the State level, MCHB might play an active role in promoting local and State “health utilities”; that is, centralized systems that help health providers and programs

connect women, children and families to needed services and supports beyond the health sector. Examples of this kind of “utility” include Connecticut’s *Help Me Grow* (a statewide referral and linkage system that helps pediatric practices, early care providers, and parents address the developmental needs of young children) and Iowa’s *1st Five Healthy Mental Development Initiative* (which includes specially trained regional care coordinators who link children and families to services and supports that go beyond the health sector). At the local community and individual program level, MCHB might play a role in encouraging and disseminating innovative life course programming initiatives – such as the *Northern Manhattan Perinatal Partnership*; the *MCH BEST* initiative (Building Economic Security Today) in Contra Costa County, CA; the *Comprehensive Fatherhood Initiative* (e.g. in San Mateo County, CA); California’s *First 5 Initiative* (e.g., First 5 Commissions in Alameda, Los Angeles, Orange, and Ventura counties); or Florida’s *Children’s Services Councils* (e.g., in Hillsborough and Palm Beach counties). Similarly, MCHB could encourage more interpersonal and community capacity enhancement efforts, such as Centering Pregnancy or Centering Parenting, mother support groups, fatherhood initiatives, youth development, and grandparent partnership programs – all of which harness the collective input and power of individuals, parents and community members to improve their health and well-being, and which counter-balance the predominant emphasis solely on clinical care solutions.

Finally, in the policy arena, MCHB and its State and local health department partners could revise policies to assure better coordination of services both horizontally (across sectors) and longitudinally (across age groups, and across the life cycle). This might be achieved with policies that reimburse for referral and linkage, or that allow blending of funding streams. Policies that reimburse service providers for assisting children and families with transition planning could promote improved longitudinal integration of care. To cite a program-specific example, administrative policies that place Healthy Start participants on a high priority list for Early Head Start slots could help assure that at-risk children and families receive a continuous range of services and supports designed to promote healthy development from the earliest life stages, and could also assure cross-program collaboration. Finally, MCHB might require cross-sector representation on funding review panels (for example, including reviewers from early care and education or family support sectors), to help assure funded projects can realistically intersect with other service sectors.

- **Political Will**

- **What’s Needed:** Successfully implementing a life course agenda will take more than a strong knowledge base and good programs and policies. It will also require building political will (i.e., engagement and buy-in) for a life course approach among a broad base of stakeholders. To build political will, at least five groups need to be engaged: MCHB’s own staff (and that of HRSA); the broader MCH “family” (i.e., grantees, and partner organizations); other health and non-health Federal agencies; non-traditional

stakeholders (e.g., the business community, the environmental community, etc.); and local community stakeholders (e.g. the larger MCH population itself). It also requires balancing the immediacy and more limited focus of specific legislative mandates with a broader, cross-cutting and longitudinal life course vision. Political will doesn't just happen, it must be nurtured and developed through activities such as preparing and training leaders, engaging communities, social marketing and media campaigns, and professional education.

- **Specific Examples:** MCHB has already begun to engage key stakeholders, especially its own staff and the larger MCH family, in developing an MCH life course agenda. Starting in 2009, the Bureau initiated a series of in-house educational sessions on the topic, bringing in experts and early adopters from academia, State and local public health agencies, and grantee organizations. In addition, each Division has begun to articulate how a life course framework might shape programmatic strategies. MCHB's proposed Life Course Web site will provide a vehicle to identify and disseminate seminal works related to life course. Grantee partners such as AMCHP, CityMatCH and the National Healthy Start Association have taken an active role, as well, engaging their constituencies in developing and sharing information on life course theory and practice. As MCHB and its partners continue to reach out to additional stakeholders, they are paving the way toward a more substantial shift in resources to implement a life course approach. Additional approaches might include working with other sectors (e.g., early care and education, family support, child welfare, juvenile justice, etc.) to develop a common understanding and common policy framework for life course concepts and approaches; and/or working with community leaders and community organizations to identify and address their most salient life course health and development issues. Local 0-5 coalitions, such as Boston's Thrive in Five have been very effective in generating political will for children and families – and in tapping new financial resources and engagement from professional and community members in common life course efforts. Joint efforts of this kind can not only build engagement and buy-in, but can also enrich all stakeholders' understanding of life course approaches.

In summary, MCHB and its partners can best advance a life course approach through a three-pronged agenda that simultaneously addresses knowledge base; program and policy strategies; and political will. Each domain is critical – and all three are needed to support and enrich each other.

Section V: Conclusion

Life course theory provides a Federal and national leadership opportunity to broadly improve the health and well being of mothers, children and families. At the same time, the life course perspective offers MCHB the opportunity to reinvigorate its Children's Bureau and Title V legacy and political mandate – to address the broad range of factors that impact on children's health and well-being. By playing a critical leadership role in promoting a shift to a life course perspective, MCHB – with its many partners – can

take significant strides towards realizing two overarching goals: (1) to optimize health across the lifespan, for all people; and (2) to eliminate health disparities across populations and communities.

This concept paper, **Rethinking MCH: The Life Course Model as an Organizing Framework**, has explored how the federal Health Resources and Services Administration, Maternal and Child Health Bureau might use life course theory as a strategic planning framework, guiding the work of MCHB, its grantees, and partners over the next 5 years. The paper has presented the key concepts of MCH life course (timeline, timing, environment, equity) – and has given examples of how these might be applied to strategic planning. It has also explored how MCHB might begin to put life course theory into action through a strategic framework that simultaneously strengthens the life course knowledge base, develops new program and policy strategies and enhances political will.

As stated at the outset of this paper, we recognize that the translation of life course theory into new and innovative practices, programs and policies is not simple. It will likely take several iterations and an ongoing, collaborative “MCH learning community” to achieve this transformation and to realize life course theory’s promise. As MCHB and its partners gather to celebrate the 75th anniversary of Title V, there is no better time or place to begin a dialogue or launch an MCH life course learning community. It is hoped this concept paper will prove a useful starting point. Let the dialogue begin!

MCH Life Course – Selected Readings for Further Information

Note: This publication lists non-federal resources in order to provide additional information to consumers. The views and content in these resources have not been formally approved by the U.S. Department of Health and Human Services (HHS) or its components. Listing these resources is not an endorsement by HHS or its components.

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