

Invited written testimony of

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Before the

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United States Senate**

PRINCIPLES OF INTEGRATIVE HEALTH: A PATH TO HEALTH REFORM

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Chairwoman Mikulski, Senators Enzi, Burr, Hagan, and other distinguished members of the Committee, thank you for the invitation to be here today.

I am Dr. Kathi Kemper, Caryl Guth Chair for Complementary and Integrative Medicine at Wake Forest University Baptist Medical Center, founder of the American Academy of Pediatrics Section for Complementary and Integrative Medicine, and the author of The Holistic Pediatrician.

This submitted testimony will briefly cover

- a definition of integrative health
- epidemiology of the use of complementary therapies (a subset of integrative care) in pediatrics
- review 10 principles of integrative care and how they might inform health care reform.

I have also submitted the 12/08 publication in *Pediatrics* on the use of CAM in pediatric populations and the White Paper on Research in Integrative Medicine prepared for this week's Summit on Integrative Medicine at the Institute of Medicine.

I. Definition of Integrative Health Care:

Integrative medicine is professional health care that is

- Evidence-based
- Comprehensive
- Systematic, including not only the individual, but also the family, community and environment
- Patient and family-focused, and
- Emphasizes wellness, health promotion and disease/injury prevention

In short, integrative medicine is good medicine.

Integrative pediatrics is the practice of integrative medicine devoted to the care of infants, children and adolescents. Among all medical specialties, pediatrics is uniquely focused on health promotion and disease prevention. Pediatrics takes a long-term view of outcomes, uses very specific science-based strategies to enhance health behaviors and address behavioral challenges, and works closely with community institutions such as schools. Like family medicine, by definition, our work encompasses of the health of the family as well as the individual.

Like pharmaceuticals, immunizations, surgery and other conventional therapies, complementary and alternative therapies are subsets of the therapeutic arsenal available to integrative clinicians to serve patients' health needs. However, *a collection of disparate therapies does not constitute a true system of professional care* any more than our current collection of physicians, insurers, hospitals, governments, non-profit groups, and for-profit pharmaceutical and device makers constitutes a national health care system.

A functional system requires a shared vision; coordinated, sustainable strategies to move toward that vision; consequences for adherence to and deviations from strategically driven actions; data collection to monitor the process and outcomes; feedback; and timely, rational revisions to strategies, behaviors, monitoring systems and consequences. The fact that Americans spend more than any other country in the world on health and yet fail to achieve our national health goals reinforces the need for a new, systematic approach informed by integrative health care.

II. EPIDEMIOLOGY

The increasing numbers of Americans who use complementary and alternative medical (CAM) therapies (a subset of integrative medicine) supports the theory that conventional medicine is failing to meet citizens' goals for health, and that a more comprehensive, patient-centered approach that focuses on health outcomes rather than disease management is desirable.

The December, 2008 report on from the American Academy of Pediatrics and the December, 2008 report from the National Center for Complementary and Alternative Medicine (NCCAM) and the National Center for Health Statistics show that substantial numbers of American youth, like adults, use CAM therapies. CAM use is lowest in healthy populations. Excluding the use of prayer, folk remedies, multivitamins and recommended supplements, approximately 12% of children and youth receive CAM. The percentage in general pediatric clinics is approximately 20%. Rates are 50% - 70% in youth with chronic conditions. A study published in 2008 from our pediatric rheumatology clinic at Wake Forest Baptist Medical Center showed that the rate of CAM use (92%) exceeded slightly the use of conventional therapies (88%).

An American Academy of Pediatrics survey of 745 pediatricians, published in 2004 showed that 87% of pediatricians had been asked

about CAM, 75% were concerned about potential risks or side effects, 66% believed that CAM could enhance recovery or relieve symptoms, yet only 20% discussed CAM with their patients; 80% of pediatricians desired more training in these areas.

As in adult studies, only about 40% of patients and families who use CAM discuss it (or home or folk remedies) with their physician.

Despite the high rate of use of CAM therapies in pediatrics, pediatrics has not been a priority population for NIH NCCAM research funding (currently receiving less than 5% of such funding and lacking a pediatric member on its Advisory Council). Conventional training in the health professions has not included a requirement for training in pediatric integrative medicine. Training in pediatrics for other licensed health professionals, such as chiropractors, massage therapists and acupuncturists has been variable.

The most commonly used CAM therapies in pediatrics are prayer, dietary supplements, chiropractic and mind-body therapies.

Prayer is the most commonly used CAM therapy; various surveys show that it is used for health purposes by 45% - 85% of pediatric patients/families. Substantial research shows that those who pray and participate in religious communities such as churches are healthier and engage in better health behaviors than those who do not. The high prevalence of use; the associations with health and health behaviors; the importance of prayer in American lives and communities; the fact that physicians seldom ask about prayer despite patients' desire for discussion on this topic; and the current lack of coordination between medical institutions and faith communities suggests several unmet needs regarding optimal integration of prayer, faith and professional health care.

Dietary supplements, including use of vitamins, minerals, herbal remedies, fish oils, probiotics and hormones, are the second most commonly used group of CAM therapies in pediatrics. These products are widely available over the counter and many are specifically marketed for pediatric patients.

Despite their widespread availability and use, there has been little *research* specifically in pediatrics on their safety and effectiveness. It is likely that some (such as the already mainstream use of folate to prevent neural tube defects and vitamin K to prevent hemorrhagic disease of the newborn, and newer approaches such as administering probiotics and enteric coated peppermint for GI patients) are safe

and effective, whereas others (such as St. John's wort to treat attention deficit hyperactivity disorder or Echinacea to treat pediatric cold symptoms) are not. Given the relatively small pediatric market and the lack of patent incentives for natural products, it is unlikely that the private marketplace will pursue such research.

Furthermore, current *federal regulations* (e.g., DSHEA), which treat these supplements more like food than medications, have left our children and youth with little protection from variability in quality and contamination with heavy metals (lead, cadmium), incorrect products or pharmaceuticals. Currently, the situation for parents who purchase dietary supplements for their children is best summarized by: "buyer beware".

Even when dietary supplements ARE helpful (such as many families for whom I care who report benefits from supplemental nutrients, omega-3 fatty acids, herbs like ginger, and probiotics), families are left to purchase them out of pocket because they are almost never covered by insurance. This creates an *economic disparity* in access to effective treatments. Furthermore, because natural products are usually less expensive than prescription medications, relying on medications (because they are covered by insurance) instead of less expensive dietary supplements drives up *health care costs*.

Chiropractic and other manipulative therapies are the third most commonly used CAM therapy in pediatrics, and the most common professionally provided CAM therapy. Surveys suggest that up to 10% of chiropractic patients are under 21 years old; insurance typically covers chiropractic care.

Despite this common use and cost, there has been little *research* on the costs and benefits of chiropractic therapy for pediatric patients in terms of its effectiveness for prevention or treatment. I am a big fan of chiropractors, having received great benefit from chiropractic treatment when I had a herniated disk. However, the data on success in treating adults with low back pain simply cannot be extrapolated to children with diverse health needs.

Many chiropractors market their services as primary care, yet states do not typically license chiropractors to provide *immunizations*, which represents a large lost opportunity to achieve public health goals for universal immunization. The discussions about HIT have not explicitly discussed including chiropractors and other health professionals such as naturopaths, acupuncturists or massage therapists, yet they are an important and growing part of patient-centered and patient-driven care.

Chiropractic training in pediatrics is limited, and *communication and coordination* between chiropractors and medical doctors is poor. This

may result in delays in seeking care, redundant X-rays or other diagnostic tests or conflicting professional recommendations.

Massage therapy is widely offered in US hospitals to newborns, and a substantial body of research supports the use of massage to promote health in diverse pediatric conditions. However, Medicaid and other insurers rarely cover massage services. This means that access to this helpful service is limited to those who can afford to pay out of pocket, resulting in significant disparities in access to therapeutic massage.

Mind-Body Therapies such as progressive relaxation, deep breathing, meditation, yoga, biofeedback and guided imagery are the fourth most common category of CAM therapies used by families and youth. Most often, families use these practices *without* professional guidance due to shortages of pediatric mental health professionals and uneven insurance coverage for these services and products (again, resulting in disparities in access to effective services).

Mind-body therapies are useful in managing a variety of pediatric symptoms: pain, headaches, anxiety, insomnia, inattention, impulsivity, and stress-related symptoms. Unlike medications, which frequently have side effects and contra-indications (but which are nearly universally covered by insurance), mind-body therapies have *side benefits*. For example, learning to practice a stress management technique to reduce the frequency of migraine headaches can help a student manage test anxiety; an evaluation of the HeartMath emotional self-management program (which uses biofeedback among other techniques) in California schools showed a significant improvement in test anxiety and test scores.

Unlike medications, whose benefits typically end when someone stops taking it, the benefits of learning a skill endure for months and years after the initial training.

Many mental health disorders, such as anxiety, depression and substance abuse have their onset in pediatric ages. Given the alarming rates of mental, emotional and behavioral disorders that first appear during childhood and adolescence (costing the US an estimated \$247 billion according to a report from the Institute of Medicine), there is an urgent need to address the gap between what is known about preventing these disorders and what is actually done. Providing access to mind-body therapies that help youth learn to manage stress more skillfully than using tobacco, alcohol or drugs represents one such strategy.

III. PRINCIPLES OF INTEGRATIVE HEALTHCARE

Integrative Healthcare includes several principles that are vital to cost-effective, equitable, efficient, timely, safe and sustainable health care for America's youth. They are consistent with much of what has been discussed at earlier HELP hearings this year on related topics. These principles are outlined below with figures following the text.

Principles alone are insufficient for forming policy; substantial *additional research* is needed to determine how best to *translate* what is known into an effective, coordinated system of health promotion across the tiers of physical environment, social environment, personal health behaviors, community care, primary care and specialist care. Please see *the supplementary white paper on Research Priorities in integrative Medicine*, which was prepared for this week's Institute of Medicine Summit on Integrative Medicine.

1. 1st Principle. Integrative healthcare is *holistic, systematic and ecological*. This means that it is concerned with health of the body, mind, emotions, spirit and relationships in the context of family, culture, community, and environment. Health in one aspect of one's being is intricately bound up with the others. Changes in one aspect of an individual or community affect others. Good physical and mental health requires *healthy habits in a healthy habitat*. (Figure 1) These should be the primary focus of our funding and our policy. Professional health care is also important, but it is not a replacement for the fundamentals of healthy habitats and habits.

a. Integrative health care endorses the public health principles eloquently articulated by Dr. Fielding in his testimony at the hearing on 1/22/09. An unhealthy *physical habitat* -- polluted water and air, contaminated foods, mercury-laden fish, lead in toys, a rapidly changing climate, school vending machines dispensing unhealthy foods and beverages, and lack of access to parks and recreation, safe neighborhoods, bike paths, recess, daylighting in schools, – and *unhealthy social habitats* – poverty, discrimination, poor quality schools, violence, child abuse, media that portray smoking, unsafe sexual practices and misuse of alcohol and other drugs and that markets unhealthy products and promotes consumerism to children-- impair our children's

health. Social policies regarding agriculture, transportation, urban planning, foreign relations, education, energy, environment, and communications have profound impacts on health. **Health should be an explicit outcome when weighing the costs and benefits of federal policies** even in these “non-health” related fields.

- b. Building on the foundation of healthy habits are *healthy habits*. Five fundamentals of healthy habits include: *optimal activity and sleep; nutrition; making healthy choices about personal environmental exposures; skillfully managing stress; and communicating effectively* (See Figure 2). Because healthy habits are critical to good health, it is important for us to create social policies that make it easier to act wisely¹. We also need timely, relevant information and systems to make it easy to make health decisions. Most health habits are established in childhood; promoting healthy habits between the ages of 10-24 has an especially high return on investment. Although much of the discussion has focused on nutrition and exercise, there is abundant evidence that children and youth desperately need to develop skills in managing stress and communicating effectively and productively in order to meet health and other needs.
- c. Just as healthy habits do not exist in a vacuum, *professional health care* occurs within the context of self-care and family care. Patients and families with chronic conditions have often already sought information from friends, family, teachers, colleagues, and other health professionals, books, magazines and the Internet. Clinicians need to be proactive and *ask* what patients are already doing for their health and how well it is working.

Clinicians need to be skillful in *assisting patients to make behavior changes* consistent with their health goals, based on the science of effective behavior change, such as the skills of

¹ For example, behaviors are often sensitive to price. Increasing the price of tobacco reduces smoking rates in teenagers. Research is needed to determine the impact of changes in the price, information (nutritional labeling) or additional taxes on unhealthy foods (e.g., taxing drive-through meals more than walk-in service) on obesity and other health outcomes. The price of many medical interventions (tests, therapies) are often not apparent to patients until the bill arrives; even many professionals do not know what tests and procedures cost; providing timely access to price information affects ordering and prescribing behavior. Similar information and incentives about using medical diagnostic tests, procedures and therapies may have dramatic impact on health costs and outcomes, and requires systematic research.

motivational interviewing (assessing goals, confidence, barriers, resources, exploring ambivalence and helping to set specific, measurable actions with clear consequences and plans for evaluation and reassessment). Clinicians also need to be able to advise patients and families about the best sources of evidence-based information on the internet and to steer them away from "snake oil salesmen" and those whose interests in profit exceed their dedication to patients' health.

2. Second principle. "*First, do no harm,*" means that when additional therapies (beyond healthy lifestyle) are needed to achieve an individual's health goals, priority should be given to those that are safe. Safe means not only low in side effects, but also low in direct and opportunity costs, and *least* harmful to the values, integrity, self-respect, autonomy and cultural identity of the child and family, as well as the sustainability of resources for future generations. Natural therapies and healthy behaviors are typically safer than pharmaceutical and surgical approaches, but existing financial incentives have limited their use in professional practice.

3. Third Principle. *Comprehensive, culturally competent care.*

The spectrum of therapeutic options might be considered in 4 categories:

- a) Healthy lifestyle habits as described above;
- b) Biochemical therapies such as medications, but also including dietary supplements such as vitamins and minerals to correct deficiencies or address unique needs due to genetic, medical, behavioral or environmental factors;
- c) Biomechanical therapies such as surgery, and also massage, bodywork and manipulative therapies; and
- d) Bio-energetic or biofield therapies such as radiation therapy, electromagnetic therapies, acupuncture, Healing Touch, Therapeutic Touch and Reiki, prayer and homeopathy (Figure 3).

Integrative health care recognizes the importance of indigenous healing systems that employ multiple types of therapies such as Ayurvedic medicine, Traditional Chinese Medicine, Native American medicine, the traditional practices of Hawaiian healers, and folk healing traditions.

4. Fourth Principle. Integrative pediatric health care emphasizes *health promotion, wellness and prevention*. This means that it is explicitly focused on achieving positive goals, not simply the absence of disease. While some cynics have described a healthy person as

“one who has not been sufficiently evaluated,” integrative practitioners focus on physical, emotional, mental, spiritual and social health (Figure 4). A clear focus on health outcomes and their modifiable environmental and social determinants (not just the process of care) is necessary.

Many academic health centers (AHCs), including pediatric hospitals, derive much of their clinical revenue from providing high tech care for the sickest patients. For example, pediatric departments are frequently financially dependent, in part, on income from clinical care of premature infants. They lose money when prematurity rates are reduced (successful achievement of a public health goal lowers revenues for tertiary care institutions). This kind of *unintended perverse incentives* does not contribute to the promotion of our national health goals for children and youth.

5. Integrative health care is *patient-centered, service oriented and committed to empowering individuals and families*. We appreciate the tremendous growth of scientific knowledge over the past century, yet we are humbled by the amount still to be learned, and we are in awe of the power of the innate healing ability². We also recognize that *the patient and family are the experts on their own lives*. This means that it is the individual patient or client’s goals, needs and values that frame decisions. Rather than looking at patients’ compliance or adherence, *the focus is on how well current strategies, clinicians, therapies and systems of care meet the patients’ goals*. Integrative care requires open dialogue, collaboration, reflection, analysis, and revision. The process recognizes that patients and families may hold multiple goals, conditions, values, explanatory models, and expectations simultaneously. These factors may change over time, requiring flexibility. Integrative medicine also recognizes that some therapies target specific symptoms or cure that then result in improved overall sense of well-being; other therapies target general well-being which may reduce the risk of several illnesses.

Because individualized, patient-centered care requires substantial information and dialogue, attention to efficiency, flexibility and innovation are important. Current models are time consuming and poorly reimbursed using conventional models.

² As every surgeon knows, we can put the pieces together, but the actual healing lies in the innate wisdom of the patient’s body.

Focusing reimbursement on the most highly paid professionals (physicians) to provide care that could be equally effective at lower cost (using coaches, nurses, educators, nutritionists, fitness coaches, PAs, nurse practitioners, interactive web sites, and others) is costly, inefficient, and unnecessary.

6. *Integrative health care emphasizes integrity, open-mindedness and fairness.* This means that integrative clinicians aspire to live healthfully and be *role models* of healthy lifestyles, promoting healing environments, and advocating for life-sustaining clean air, water, and other systems essential for optimal health. We advocate for health care that promotes a healthy planet (green health care). There is no national standard for training health professionals that focuses on personal health behavior. Nor are there national standards for health care institutions to become less polluting or "greener."
7. *Integrative health care is informed by scientific evidence and human experience.* We are deeply grateful for, rely on and support the vast and growing body of scientific understanding and evidence. We also recognize the *limitations of extrapolating results of population studies to individuals* who may differ substantially from those involved in clinical trials. This means that pay for performance is important, but not sufficient. We must pay for outcomes. A broader scientific agenda is needed to better understand how to translate knowledge into patient-centered health promotion effectively, efficiently, equitably, safely and sustainably.
8. *Integrative care is multidisciplinary.* Learning to work with professionals of different backgrounds and skills requires enhanced communication and teamwork skills. Expanding the notion of multidisciplinary teams focuses on the importance of *communication and teamwork skills*. These skills should be developed throughout training in the health professions, when diverse clinicians could learn together a common core of skills such as effective counseling techniques, working together in teams, strategies for enhancing quality improvement, and working with community institutions, businesses, and public health systems to implement, evaluate and continuously improve diverse approaches to health promotion.
9. Integrative health care is *practical* as well as principled. Being practical means that we do what works for the patient, balancing

effectiveness with risks (*Figure 5*). If antibiotics do not cure the common cold, they should not be prescribed, nor covered by insurance (for that use). If massage, acupuncture or biofeedback relieve symptoms and improve health outcomes safely and effectively for children and families, they should be accessible. If a non-physician acupuncturist is as effective as a physician acupuncturist, there should be no disparities in reimbursement for their services. If meditation classes help adolescents reduce stress, lower blood pressure and relieve pain, shouldn't there be access to those services as well as to medications?

10. Integrative health care recognizes that the opportunities of the *internet* era also presents challenges to the conventional model of care of state system of *credentialing* health professionals. There are no national standards for licensing all health professionals, including acupuncturists (now licensed in over 40 states), massage therapists (licensed in some places by municipality and others on a statewide basis), and naturopathic physicians (licensed in just over a dozen states). National systems are needed to ensure safe, responsible practices and access to cost-effective services across state lines (via internet counseling, coaching, and consulting).

IV. SUMMARY OF RECOMMENDATIONS

- A. Overall federal health policies: Aim for alignment and integration between "non-health" policies, public health, personal habits and professional care to promote optimal pediatric health.
- B. Research
 1. Increase NIH NCCAM funding for pediatric research, particularly for therapies of potentially greater risk and common use such as *dietary supplements*; those that are commonly used and generate substantial costs, such as professional *chiropractic* care; and those of potentially great value and safety across the lifespan such as *mind/body stress and symptom* management practices.
 2. Ensure that there is pediatric representation on the NIH NCCAM Advisory Council.
 3. Conduct research on the cost-effectiveness of explicitly addressing health promotion in the context of churches and other religious, spiritual and faith communities.
 4. Support research on the long-term, *comparative* costs and

benefits of different therapies and strategies (including public policies and novel delivery models) to achieve health goals. Include opportunity costs, and costs to self-esteem, cultural identity, integrity and autonomy. Include citizen groups, bio-ethicists, and economists as well as diverse health professionals in planning such research.

5. Expand the scientific agenda to better understand how to *improve systems* of care and *translate knowledge into practice*.
6. Develop *new scientific models* to better extrapolate from research conducted on narrow populations to diverse, unique individual patients with multiple, changing health goals and needs. This is particularly important for pediatric patients whose development results in ongoing changes in needs.

B. Professional Training

1. Foster training for pediatric health professionals to
 - *discuss* CAM use with patients and families;
 - *ask* about use of folk remedies and spiritual and religious beliefs and practices related to health;
 - *provide evidence-based information* about CAM therapies to ensure safe practices in these vulnerable populations;
 - *record* use of natural therapies in patients' health records;
 - *report* suspected adverse effects to FDA Medwatch and other appropriate agencies; and
 - *Communicate* with and *coordinate* care between clinicians, churches, schools, and other community institutions.
2. Increase the number of health professionals who can provide mind-body therapies, and coach children and youth to successful stress management practices and positive communication skills.
3. Support professional education to develop expertise in effective, sustainable changes in health behaviors, such as motivational interviewing.
4. Ensure that training for pediatric health professionals includes common core training in healthy lifestyles (including stress management and skillful communication to build interpersonal relationships) and natural therapies. Professional training should foster early and ongoing awareness and practice of healthy lifestyles.
5. Ensure that training for health professionals develops an awareness of and respect for the diverse therapies and cultural traditions that affect health.
6. Provide appropriate *incentives* and *penalties* for professional training programs to achieve these goals.

C. Community Information and education

1. Ensure that families have access to the best current clinical evidence regarding the safety and effectiveness of natural health products commonly used by children and youth.
2. Promote evidence-based health education and activities in schools.
3. Provide health education, coaching and support using cost-effective strategies, e.g., peer support, community nurses, health coaches, nutritionists, fitness counselors, meditation teachers, or counselors.

D. Safety and regulations

1. Review and consider revising FDA regulations concerning dietary supplements, particularly those marketed to children, to ensure that families have access to safe, high quality, reliable products.
2. Review and consider regulations to allow chiropractors and other health professionals commonly seen by pediatric patients to provide immunizations.
3. Develop active surveillance systems to detect and respond to adverse effects from therapies for children and youth.
4. Review and evaluate professional licensing across all 50 states and devise models of reimbursement to cover efficient, safe, accessible, high quality, timely inter-state, *on-line health services*, consulting counseling or coaching.

E. Access to, provision of and reimbursement for clinical integrative services

1. When evidence suggests that natural therapies, services and products are as or more safe and effective as other therapies for promoting health and decreasing symptoms in infants, children and adolescents, encourage insurers to cover these services.
2. Incentivize professional integrative health care that provides adequate counseling and coaching to promote healthy habits for children and youth and provides health care services that offer safe and effective patient-centered care of good value, minimizing disparities to access, particularly for vulnerable populations such as infants, children and adolescents.
3. Encourage healthy lifestyles among health professionals to provide effective role models
4. Incentivize productive, timely communication and coordination among chiropractors, acupuncturists, psychologists, massage therapists, naturopathic physicians and other licensed health professionals who care for children and youth.

5. Develop, implement and evaluate potentially more cost-effective models for delivering care, such as peer support and counseling, public health nurses, care in groups, by telephone and webinars, videoconferences and teleconferences as well as in individual visits.
6. Develop new models that promote continued expansion and dissemination of new knowledge and understanding through AHCs without fostering financial dependence on expensive, disease management based on generating RVUs (i.e., change pay for visits to pay for performance and outcomes). Make it financially worthwhile for AHCs to focus on health promotion, and work with the public health sector to achieve population health goals.

F. Federal policies which are not directly health-related

1. Systematically review and, as needed, revise federal policies that directly or indirectly affect the health of children and youth. These include (but are not limited to) transportation, agriculture, energy, education, environment, commerce, and communication.
2. Support federal policies that promote healthy physical, social and psychological environments for children and youth such as expanding the Family Medical Leave Act.
3. Incentivize "green" health care for large institutions including health facilities. This means not only reducing electricity and water usage, increasing recycling and using green cleaning practices; it also means promoting efficient transportation and reimbursing for professional care provided by telephone, internet or webinar to minimize generation of green house gases involved in travel. Using new technology to provide professional care would also enhance access to those in rural areas and those who lack transportation.

G. Other

1. Incentivize citizens' personal habits that are health promoting such as breastfeeding; provide information to allow families to make healthy choices for their children (such as nutrition information about restaurant meals for children).
2. Develop *information technology* (already discussed at length in these hearings) to more efficiently gather and process information (e.g., Dr. Kelly Kelleher has demonstrated that mothers can enter data, history, habits, etc. into on-line health risk appraisal forms for automated scoring and analysis prior to seeing their pediatrician. This simple IT solution effectively

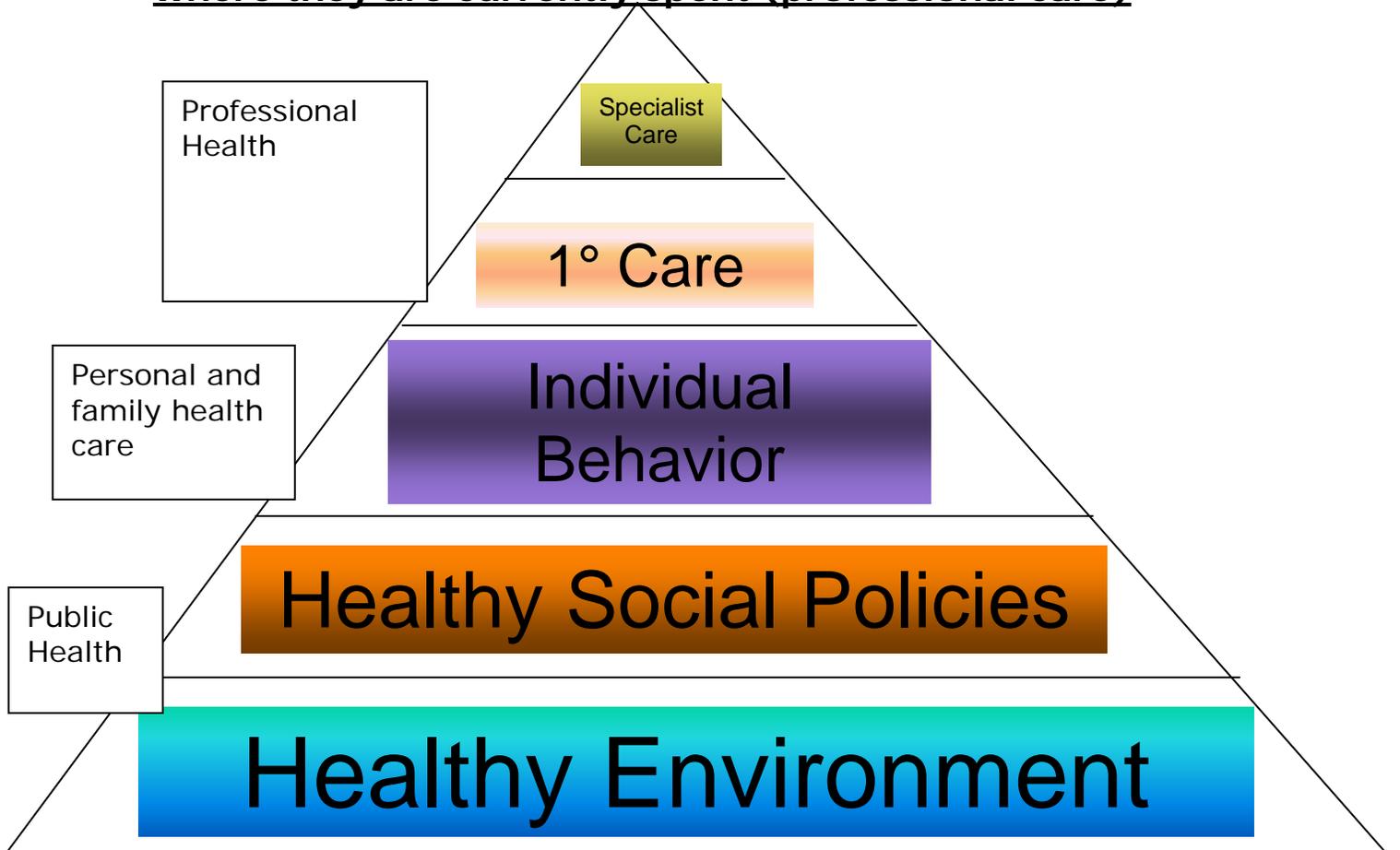
enhances clinicians' recognition of and response to families' concerns about behavioral health issues).

The system we have is perfectly designed to achieve the results we are now experiencing. If we want different results, we need to change the system. We need to start with a clear vision of a healthy nation and plan an integrated system, including alignment with other national goals, to develop sensible, sustainable strategies. Just as a health behavior such as exercise is health promoting and has benefits on numerous outcomes (e.g., weight, heart disease, mental health), sound policies should have diverse benefits. Healthy people are productive people who are best able to solve our national and global problems.

I believe the 10 principles of pediatric integrative health care – focusing on health promotion and disease/injury prevention through patient-centered, comprehensive, evidence-based policies that promote a healthy environment, personal health habits, and professional care – can help us achieve national health goals effectively, efficiently, equitably, safely and sustainably.

Thank you for the opportunity to present this testimony.

Figure 1: Pyramid of Integrated and Aligned Health Promotion – Principle: focus resources where they will do the most good, the base of the triangle, not on where they are currently spent (professional care)



Current fragmented, Non-aligned situation:

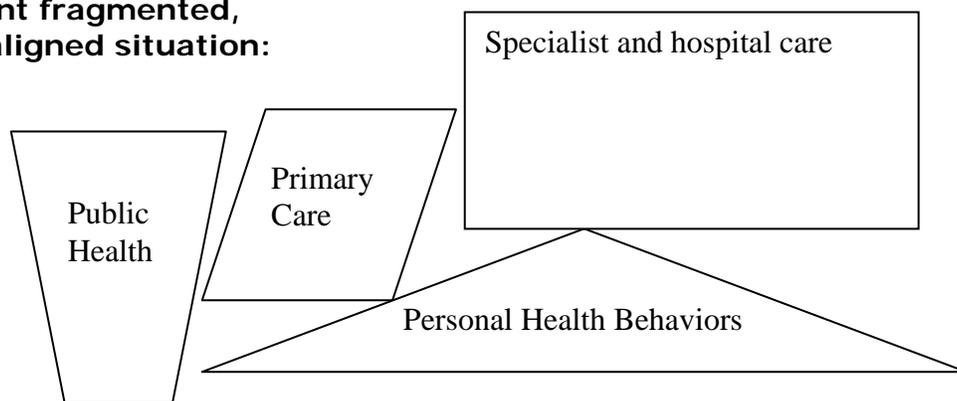


Figure 2 – Five Fundamentals of Healthy Habits

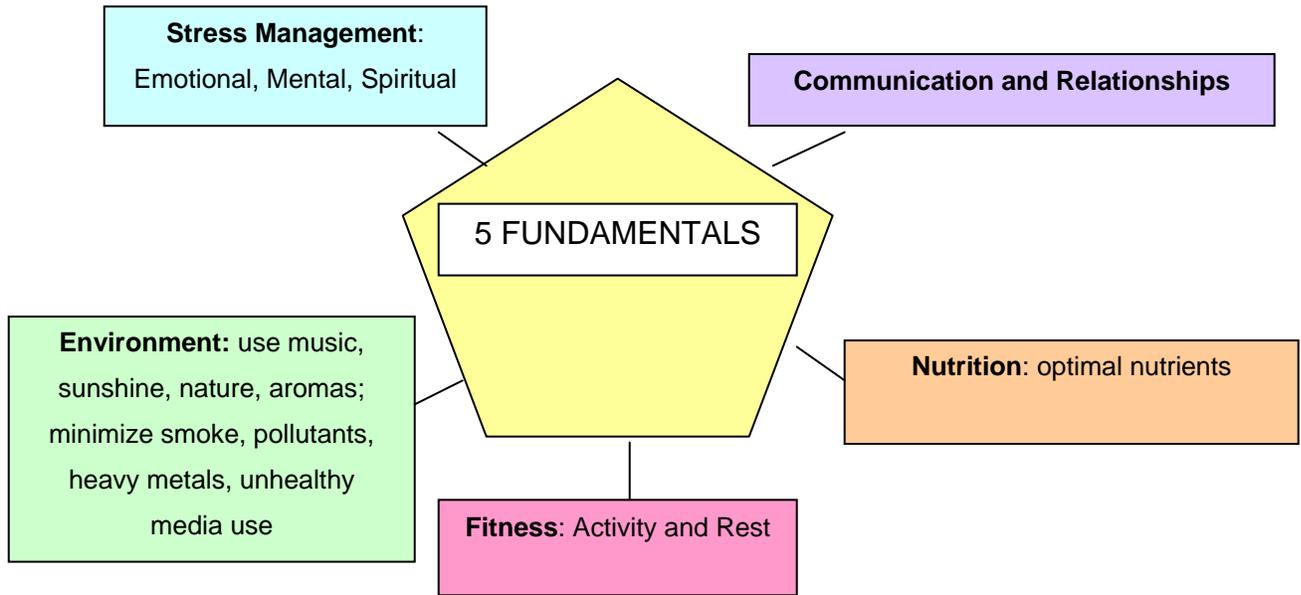


Figure 3 – Therapeutic Options

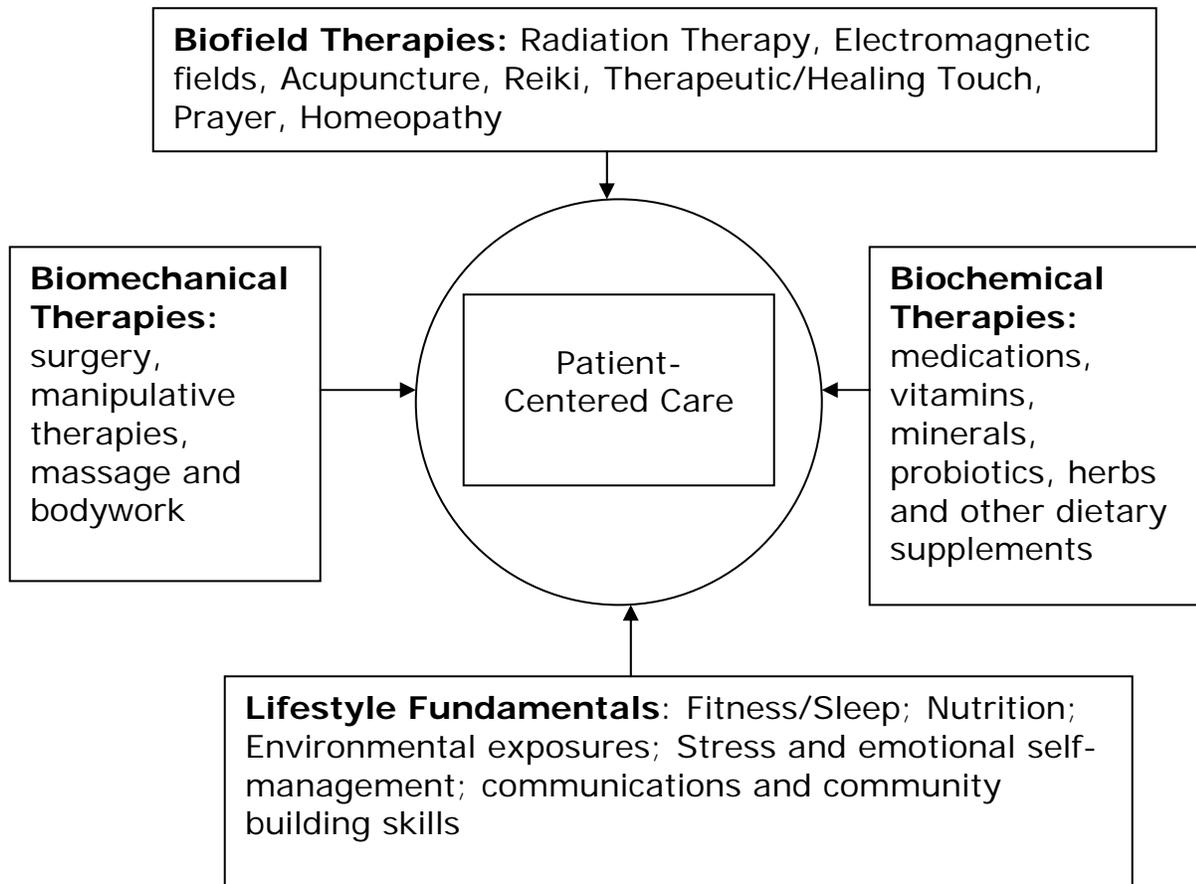


Figure 4 – Physical, Mental and Spiritual Health Characteristics

| Physical Fitness | Mental Health | Spiritual Well-being |
|-------------------------|---|--|
| Strength | Confidence and courage | Faith |
| Flexibility | Adaptability | Forgiveness |
| Endurance | Cheerfulness | Hope |
| Focus | Attention / Concentration | Love |
| Coordination | Harmony | Kindness |
| Resilience | Hardiness | Charity/generosity |
| Teamwork | Social Network/ communication skills/ connection to community | Connection with a Higher Power, Spirit or Nature |

Figure 5 - Balancing Effectiveness and Safety

| | | | |
|-------------|------------|------------------|----------------|
| | | Effective | |
| | | <i>Yes</i> | <i>No</i> |
| Safe | <i>Yes</i> | Use/Recommend | Tolerate |
| | <i>No</i> | Monitor closely | Advise against |

Questions about what works (effectiveness):

- What specific therapy?
- For whom?
- For what condition? (cancer, colds)
- Under what circumstances?
- For what desired outcome?
- When? immediate versus long-term
- At what costs?
- Compared with what other therapies?