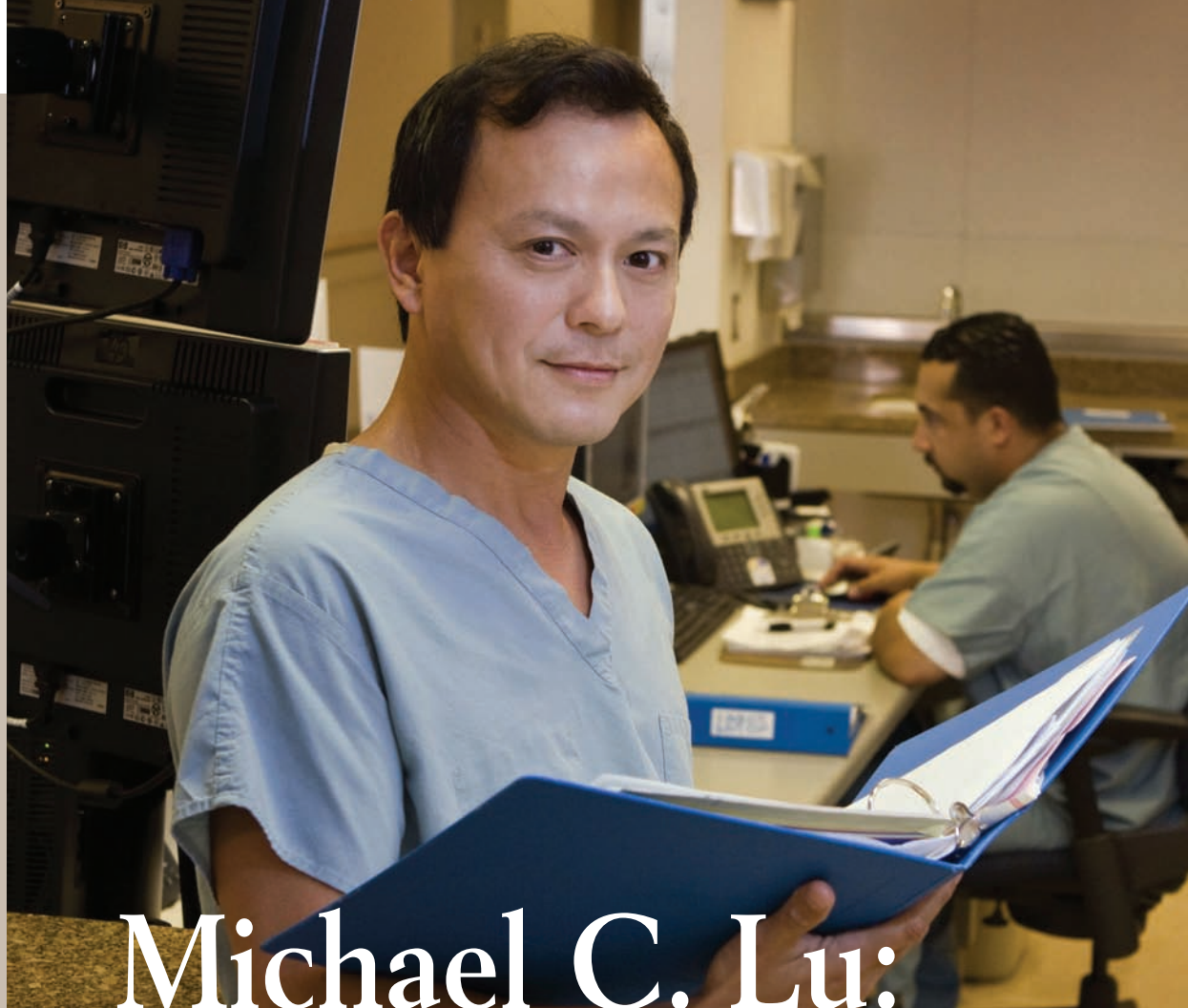


**THE U.S. RANKS NEAR THE BOTTOM AMONG DEVELOPED COUNTRIES ON MANY MEASURES, AND RACIAL/ETHNIC DISPARITIES IN PREGNANCY OUTCOMES PERSIST. THE OBSTETRICIAN/GYNECOLOGIST AND PUBLIC HEALTH RESEARCHER PROMOTES A BROADER AGENDA.**



## Michael C. Lu: Redefining Maternal and Child Health

Much has been said about the importance of prenatal care in reducing the risk of health problems for both the mother and infant. Dr. Michael C. Lu believes that's framing the issue too narrowly. "Increasingly, we're learning that by the time a woman becomes pregnant, she may have already missed a critical window of opportunity to give her baby the best start in life," says Lu, an associate professor in both the UCLA School of Public Health and the David Geffen School of Medicine at UCLA, who maintains an obstetrics/gynecology practice along with his active research and teaching efforts.

In his book *Get Ready to Get Pregnant: Your Complete Prepregnancy Guide to Making a Smart and Healthy Baby*, Lu provides tips on foods to eat and those to avoid, along with strategies to build stress resilience, give the immune system a "tune-up," and detoxify one's environment. "Most women know you should quit smoking and take 400 micrograms of folic acid daily before pregnancy," he explains. "But there is a growing body of science indicating that there is much more they can do to get ready, and even many doctors don't know about that."

Preconception health is only one part of what Lu believes should be an even broader agenda. Among developed countries, Lu notes, the United States ranks near the bottom in maternal mortality, in many of the causes of infant mortality and in other conditions that affect infant and child health, from overweight and obesity to early-onset type 2 diabetes. Moreover, Lu and others have hypothesized that many of the seeds of our future health and function – including long-term chronic conditions such as hypertension and heart disease – are planted inside the womb.

Particularly troubling to Lu – and the focus of much of his research – are racial and ethnic disparities in pregnancy outcomes. Black infants die at more than twice the rate of white infants in the United States, and

have much higher rates of low birthweight and preterm birth. The disparities persist even when taking into account differences in income and education, in risk behaviors such as smoking, and in prenatal care. Possible genetic explanations are being studied but are unlikely to fully explain these disparities, Lu says. With his School of Public Health colleague Dr. Neal Halfon, director of the Center for Healthier Children, Families and Communities, Lu has written about the need to change the paradigm and begin embracing a life-course perspective. “For decades we have searched for risk factors during those nine months of pregnancy to explain the disparities, but we can’t expect prenatal care to eliminate all of the disadvantages and inequities that accumulate over the life course,” Lu says. “We have to do much more – not just in healthcare but also in policy – to create conditions in which all mothers and babies can be healthy.”

Since childhood, Lu has wanted to be a physician – but one who, beyond seeing patients, would through research and policy address broader health and social justice issues affecting the population. His determination to make an impact on the lives of society’s less fortunate members is rooted in his upbringing. Lu was born in Taiwan to parents who weren’t afforded the opportunity to attend college – his mother never got past fifth grade, dropping out to support her family through factory work after her father died. “My parents worked hard to put food on the table and still managed to get their four children through college,” Lu says. “They taught me about making a difference in the world.”

With ambitions in both medicine and public health, he graduated from Stanford and enrolled in the M.D./M.P.H. program offered jointly by UC Berkeley and UC San Francisco. In 1990, while still in graduate school, Lu and several other medical students established the Suitcase Clinic, taking their medical equipment to homeless people in the community and offering to provide care for them, under faculty supervision. In launching the clinic, Lu and others quickly learned a lesson in public health: “We realized that the homeless population faced a constellation of problems, of which healthcare might not be the highest priority,” Lu recalls.

So his group expanded the model, bringing in students and faculty from the law school to provide legal counseling; from the psychology department to provide crisis intervention services; and from the optometry school to provide vision care. Other volunteers were brought in, from chiropractors to beauticians. Nearly two decades later, the Suitcase

Clinic continues to operate, having served tens of thousands of homeless and indigent individuals and, just as important to Lu, engaging graduate and undergraduate students in the process. “My hope is that it really changes students’ hearts and minds about what healthcare professionals and people in public health can do to make a difference,” Lu says.

When he chose obstetrics/gynecology as his specialty, he figured he would be a champion for prenatal care. But Lu says his public health grounding led him to question whether focusing on prenatal care was enough to make a difference in improving the health of mothers and infants at the population level. “Not to discount the importance of prenatal care, but I think we can do better,” says Lu, voted one of the Best Doctors in America since 2005.

Lu is currently involved in several large studies that he hopes will shed light on strategies for improving maternal and child health and eliminating disparities. He is a lead investigator in Los Angeles County for the congressionally funded National Children’s Study, which will follow a representative sample of 100,000 children from before birth to age 21 in an effort to better understand the causes and identify prevention strategies for major childhood disorders such as autism, obesity, diabetes and asthma. He is the principal investigator of the Los Angeles Mommy and Baby Survey, a joint effort between UCLA and the Los Angeles County Department of Public Health to conduct a detailed survey of the determinants of birth outcomes in the county, including potential community-level effects. He leads one of five sites in the National Institutes of Health-funded Community Child Health Network, which is taking a community-based participatory research approach to studying the causes of maternal and child health disparities. And he heads the Maternal Quality Indicators project, a collaboration among UCLA, several other institutions and the California Department of Public Health to develop a statewide system for monitoring and improving the quality and safety of maternity in California.

If his parents get much of the credit for Lu’s drive to make a difference in the lives of large numbers of people through public health, having two children of his own – daughters Sasha and Avery, now 6 and 3 – made the goal that much more personal. “When my wife and I were considering pregnancy, it made me start to think harder about what I can do as a father to ensure the best start for my children,” Lu says. “Every day, my girls inspire me to do my best on behalf of maternal and child health.”

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—Dr. Michael C. Lu