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Dr. Marc Mitchell is a pediatrician and management specialist with 40 years of experience in the design and delivery of health services. He is Visiting Assistant Professor in the Division of Community Health Science in the School of Public Health at University of California, Berkeley and Adjunct Lecturer on Global Health at Harvard T.H.Chan School of Public Health where he has taught courses on program planning, management and evaluation. He is also founder and president of D-tree International, a global organization that uses digital health tools to improve the quality of health care in low income countries.

Dr. Mitchell has worked in over 40 countries leading international efforts to improve health care service delivery in the poorest countries of the world. His research interests focus on the use of digital tools to increase access to high quality health care for the world's poor. This has included clinical trials of mobile phone based decision protocols for screening of AIDS patients in South Africa, the development of clinical algorithms to improve care of women and children, and electronic decision support for community health workers in Tanzania, India, Malawi, Benin, Liberia, Ethiopia, Rwanda, Democratic Republic of the Congo and Sri Lanka.

Education

BA, Harvard University, Cambridge, MA, 1970.

MD, Pediatrics, Boston University School of Medicine, Boston, MA, 1974.

MS (MBA), Massachusetts Institute of Technology, Sloan School, Cambridge, MA, 1985.

Experience

January 3, 2018 - present University of California, Berkeley, CA
Visiting Assistant Professor in the Division of Community Health Science in the School of Public Health

Responsibilities include mentoring and advising students and faculty in the area of global digital health, developing a portfolio of projects at the School of Public Health in the area of global digital health and participation in the "Big Ideas" competition at UC Berkeley.

July, 2016 - present Harvard T.H.Chan School of Public Health, Boston, MA.
Adjunct Lecturer on Global Health.

1999 – 2016 Harvard T.H.Chan School of Public Health, Boston, MA.
Lecturer on Global Health.

Teaching responsibilities include graduate-level courses on "Evaluation of Health Interventions in Developing Countries" and "Implementation and Management of Health Programs." Research includes the use and effectiveness of digital tools in improving health delivery, and costs and impact of health interventions. He has had consultancies with WHO, UNFPA, UNICEF, USAID, DFID, Asian Development Bank, African Development Bank, World Bank, and Bill and Melinda Gates Foundation,. Dr. Mitchell is an expert on the development and use of case based training methodologies in public health. He was awarded a Citation for Excellence in Teaching, 1999-2000.

2004-present D-tree, Inc Weston, MA
President

Dr. Mitchell is the founder and president of D-tree, Inc. which was established in 2004 as a non-profit organization incorporated in Massachusetts, USA. Its purpose is to improve the quality of healthcare in developing countries through the use of innovative technology providing accurate and effective point-of-care diagnosis and treatment. The goal of D-tree International is to use inexpensive but sophisticated technology to improve the quality of health care. through the use of simple to use symptom-based protocols that guide health workers through a series of questions leading to an accurate diagnosis and treatment for each patient. These protocols (or **Decision trees**) are loaded into mobile phones with easy to use software and graphic backup materials to support the user's knowledge.

1997 – 1999 Harvard Institute for International Development, Cambridge, MA.
Development Associate

Responsible for development and management of program in Population and Reproductive Health. Managed World Bank Institute contract for the design of training materials and multiple workshops in the Area of Reproductive Health; director of HIID workshops on "Trends in Health Care Management", (1997, 1998), "Managing Managed Care."(1999), and "Private-Public Partnerships" for Asian Development Bank Institute.

1985 – 1997 Management Sciences for Health, Boston, MA

Principal Staff Associate (1996-1997). Senior level consultant to MSH field activities for Strengthening Health Services Program.

Country Representative, Mexico (1995-1996). Assisted national family planning board (CONAPO) with the development of a program to decentralize activities to the state level; assisted Mexican Family Planning Association (MEXFAM) with the development of a quality assurance program for clinical services; worked with the National Institute of Public Health (INSP) to develop capacity to provide consulting services to other organizations in Mexico.

Technical Director (1990-1995), Family Planning Management Development Project (1990-1995). Managed staff of 50 professionals and budget of approximately \$35 million over 5 years.

Resident Advisor, Indonesian Family Planning Coordinating Board (BKKBN) (1989-1990). Consultant to national family planning program on the design, implementation and monitoring of operations research projects in 18 provinces testing approaches to family planning program sustainability. Results of pilot projects informed national policy/implementation strategies for program sustainability. Objective of this program (KB-Mandiri) was to ensure long-term financial and programmatic stability of the national family planning program.

Senior Staff Associate (1985-1989). Specialization in financial and strategic planning of child survival and family planning programs, monitoring and evaluation, and development of standards of quality at peripheral health facilities.

1983 – 2001 Adjunct Assistant Professor, Boston University School of Public Health, Boston, MA.

Developed and taught course in maternal and child health in developing countries. Guest lectures have included financial control systems in health, management of integrated health programs, and the use of information systems in health management.

1980-1983 Assistant Secretary for Health, Department of Health, Papua New Guinea.

Director of all health and family planning services in Central Province of Papua New Guinea reporting to both the National Secretary of Health and the Provincial Secretary. Responsibilities included financial planning, management, and supervision of over 30 health facilities and 210 staff serving a population of 120,000. Design of Urban Health Services for the National Capital District. Served on national advisory committees on environmental health and decentralization.

1977-1978 Staff Pediatrician, Magila Hospital, Muheza, Tanzania.

PUBLICATIONS

C. Rambaud-Althaus, A. Shao, M. Mitchell, N. Swai, B. Genton, Performance of Health Workers Using an Electronic Algorithm for the Management of Childhood Illness in Tanzania: A Pilot Implementation Study *The American journal of tropical medicine and hygiene* Nov 2016

Seneca Perri-Moore, Thomas Routen, Amani Flexson Shao, Clotide Rambaud-Althaus, Ndeniria Swai, Judith Kahama-Marro, Valerie D’Acremont, Blaise Genton & Marc Mitchell (2015) Using an eIMCI-Derived Decision Support Protocol to Improve Provider–Caretaker Communication for Treatment of Children Under 5 in Tanzania, *Global Health Communication*, Published online: May 2016 1:1, 41-47, DOI: 10.1080/23762004.2016.1181486

Battle J, Farrow L, Tibaijuka J, Mitchell M, mHealth for Safer Deliveries: A mixed methods evaluation of the effect of an integrated mobile health intervention on maternal care utilization (*Healthcare* December 2015, Vol 3, Issue 4, Pages 180–184) doi:10.1016/j.hjdsi.2015.10.011

Seneca Perri, Amani Shao, Marc Mitchell, Nancy Staggers, Crucial Issues in Think Aloud Techniques for Cross Cultural Studies. *Studies in health technology and informatics*, Aug 2014

Hoy R, Ruben J, Mitchell M, Using mobile technology to address the ‘three delays’ to reduce maternal mortality in Zanzibar, (*International Journal of User-Driven Healthcare*, Jan 2014) DOI: 10.4018/ijudh.2014010103

Mitchell M, Hedt B, Msellemu D, Mkaka M, Lesh N Using electronic technology to improve clinical care – results from a before-after cluster trial to evaluate assessment and classification of sick children according to Integrated Management of Childhood Illness (IMCI) protocol in Tanzania (*BMC Medical Informatics and Decision Making* 2013, 13:95 <http://www.biomedcentral.com/1472-6947/13/95>) <http://www.biomedcentral.com/1472-6947/13/95>

Mitchell M, Hedt B, Eshun-Wilson I, Fraser H, John M, Menezes C, Grobusch M, Jackson J, Taljaard J, Lesh N, Electronic decision protocols for ART patient triaging to expand access to HIV treatment in South Africa: A cross sectional study for development and

validation, *Int. J. Med. Inform.* (2012), doi:10.1016 /j.ijmedinf.2011.11.003
<http://www.ncbi.nlm.nih.gov/pubmed/22178295>

Mitchell M, Getchell M, Nkaka M, van Esch J, Hedt B, Perceived improvement in Integrated Management of Childhood Illness (IMCI) implementation through use of mobile technology: qualitative evidence from a pilot study in Tanzania (*Journal of Health Communication*17:1–10, 2012)
http://www.tandfonline.com/doi/full/10.1080/10810730.2011.649105#.UrR4n_RDtSs

A. Shao, C. Rambaud-Althaus, M.Mitchell, N. Swai, V. D'Acremont, Safety of a new algorithm for the management of childhood illness (Almanach) to improve quality of care and rational use of drugs *Tropical Medicine & International Health* Oct 2011 .

Ahmed H, Mitchell M, Hedt B, National implementation of Integrated Management of Childhood Illness (IMCI): Policy constraints and strategies, *Health Policy* Vol 96, Issue 2, July 2010, Pages 128-133
<http://www.sciencedirect.com/science/article/pii/S016885101000028X>

Marc Mitchell, Neal Lesh, et.al., Improving Care – Improving Access: The Use of Electronic Decision Support with AIDS patients in South Africa, *Int. J. of Healthcare Technology and Management* 2009 - Vol. 10, No.3 pp. 156 – 168
<http://www.inderscience.com/info/inarticle.php?artid=25819>

DeRenzi B, Lesh N, Parikh T, Sims C, Maokola W, Schellenberg D, Borriello G, Mitchell M, e-IMCI: Improving Pediatric Health Care in Low-Income Countries (CHI conference, 2008)
<http://dub.washington.edu/djangosite/media/papers/tmpbj0qhL.pdf>

Mitchell M, MayhewS, Haivas I, “Integration of Services (Millennium Project Background Paper, Columbia University, 2004)
http://www.unmillenniumproject.org/documents/Mitchell_Mayhew_and_Haivas-final.pdf

Christina Bierring, Marc Mitchell, Jack Reynolds “Thematic Evaluation: Capacity Development in Côte d'Ivoire,” (Office of Oversight and Evaluation, United Nations Population Fund, 2002)

Mitchell, M and Arlette Campbell White, “The Tools for Adapting to Change” (World Bank Institute, 1999)

Mitchell, M, “Delivering a Package of RH Services: The Use of a Matrix of Services” (World Bank Institute, 1999)

David Canning, Marc Mitchell, David Bloom, and Erin L. Kleindorfer, “The Family and Economic Development” (World Bank Institute, 1999)

Mitchell M, Littlefield J, Gutter S. Costing Reproductive Health Services. *International Family Planning Perspectives* (Alan Guttmacher Institute, Jan. 1999).
<http://www.guttmacher.org/pubs/journals/25s1799.html>

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Mitchell M., "Models of Service Delivery" in Public-Private Partnerships in the Social Sector: Issues and Country Experiences in Asia and the Pacific, Yidan Wang, ed., Tokyo: Asian Development Bank Institute Publishing, 1998)

Kurland J, Price G, Mitchell M. Global Lessons for the USA: Bringing International Health Back Home. In: Global Health. Rapid Science Publishers, 1995

Mitchell M, Thomason J, Donaldson D, Garner P. The Cost of Rural Health Services in Papua New Guinea. Papua New Guinea Medical Journal 34:276-84, Dec. 1991.

David E. Bloom, Patricia Craig, and Marc Mitchell, "Public and Private Roles in Providing and Financing Social Services: Health and Education" in Public-Private Partnerships in the Social Sector: Issues and Country Experiences in Asia and the Pacific, Yidan Wang, ed., Tokyo: Asian Development Bank Institute Publishing, 1998)

Judith Kurland, Gail Price, Marc Mitchell, Global Lessons for the USA: Bringing International Health Back Home, , in Global Health (Rapid Science Publishers, 1995)

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Making Your Program Sustainable (chapter 10) in The Family Planning Managers Handbook, James Wolff, et. al. editors, (W. Hartford, Conn.: Kumarian Press, 1991)

Monitoring and Evaluation of Child Survival Programmes, John LeSar, Marc D. Mitchell, Robert Northrup, and Polly Harrison in Child Health & Survival: The UNICEF GOBI-FFF Program, Richard Cash, Gerald T. Keusch and Joel Lamstein, editors (London: Croom Helm, 1987)