

Technical Review Panel Member

Curriculum Vitae

Name: Ann Levin
 Nationality: USA
 Languages: English, French
 Area of Expertise: SISF

Qualifications

Qualification	Institution	Department	Year
B.A.	University of Rochester	Psychology	1977
M.A.	American University	International Development	1980
M.P.H.	Johns Hopkins University School of Public Health	International Health	1986
Ph.D.	Johns Hopkins University School of Public Health	Public Health Economics	1994

Employment History

Employer	Position	Place	Year
Levin & Morgan LLC	President	Bethesda, Maryland, USA	2003-present
FHI	Health Economist	Washington, D.C.	2001-2003
University Research Co.	Health Economist	Bethesda, MD	1998-2001

Consultancies and Committees (as applicable)

MQSUN+/PATH, 2018-present. Providing technical assistance to countries on costing Nutrition and Food Security Strategic Plans and developing guidance on development of a standardized methodology for measuring nutrition sensitive budget allocations.

John Snow Int., 2018-2020 Conducted cost-efficiency study of community health workers in Sierra Leone for Global Fund.

Conducted an economic evaluation of introducing GIS analysis to improve economic evaluation of the use of Geographic Information System technology for Accurate Routine Immunization Planning Data in Bauchi and Sokoto States in Nigeria.

CRD/Lebanon, 2019-present. Conducting business case for immunization programme in Lebanon during 2010-2018.

UNICEF/MENARO, 2018 – 2019. Conducted a study on the role and contributions of private health providers/sector to immunization coverage and equitable access to services in the MENA region.

PATH, 2013 – present. Developing costing tool for the introduction of malaria vaccine in low- and middle-income countries. Estimating the incremental resources required to continue or add malaria vaccination to the existing immunization program in intervention and comparison areas in three countries (Ghana, Kenya and Malawi).

Conducted cost-effectiveness analysis of gender violence reduction intervention in Senegal. The intervention estimated the impact of a Community Empowerment Program (CEP) in 45 communities in the Goudiry department.

Conducted cost-effectiveness analysis of six HIV prevention projects to avert new infections among at-risk populations. Also, estimated the cost of scaling-up antenatal syphilis testing with rapid tests (RST) in three countries for investment case for the Gates Foundation.

Global Fund to Fight AIDS, Tuberculosis and HIV, 2017- present. Member of Strategic Initiatives and Sustainable Financing Group of Technical Review Panel. Conduct review of funding proposals.

WHO, 2010-present. Conducted economic analyses of measles-rubella elimination in low and middle-income countries for SAGE Working Group.

Providing an overview and developing WHO Guide on methods/definitions of vaccine delivery costing and differences by vaccines and immunization to assist program managers and researchers in conducting cost analyses.

Adapting CholTool to a tool for the introduction of typhoid vaccine in low and middle-income countries.

Developed a costing tool for the introduction of influenza vaccine in low and middle-income countries.

Developed a generic costing tool for cervical cancer control, using data collected in Tanzania, Rwanda, Kyrgyzstan, and Uzbekistan. The tool includes one module for costing of HPV vaccination and a second module for costing of screening and treatment of cervical cancer.

Abt Associates, 2015-2018. Conducted case studies on private sector provision of immunization in three countries – Benin, Malawi and Georgia. Also conducted survey on health financing capacity in African institutions.

ICDDR,B, 2016-2018. Developed economic analyses for investment case for the introduction of oral cholera vaccine (OCV) in Bangladesh. Specific economic analyses include estimating the economic burden of disease, cost and cost-effectiveness of OCV introduction, and analysis of financial sustainability.

Bill and Melinda Gates Foundation, 2014-2018. Provided guidance to the Foundation and partners on how best to ensure comparability of costing data across malaria elimination studies of a range of approaches across different geographies, i.e. advising partners on guidelines and standard methods for data collection and analysis to ensure that costing data generates the most robust and valuable information possible.

URC-CHS, 2017 – 2018. Conducted economic analyses for investment case for Defeat Malaria interventions in Myanmar. Activities includes technical support to NMCP in costing out package of interventions for malaria prevention and control for different malaria strata in the country as well as estimation of cost-effectiveness of current program compared to other scenarios.

UNICEF, 2016. Developed an investment case study methodology for investment in water and sanitation and oral cholera vaccination for low-income countries as well as piloting the methodology in Niger.

World Bank, 2014-2016. Conducted immunization financing assessments of countries graduating from GAVI as part of Health Financing System Assessments. Assisted with development of the Immunization Assessment Module of the Core Health Financing Protocol for GAVI as well as participating in GAVI transition missions.

Conducted studies in Cote d'Ivoire and Nigeria to examine trends on how countries have reconciled HIV/AIDS in the context of Universal Health Coverage; assessing the costs of the HIV/AIDS basic benefits package; and exploring financially sustainable options for domestic financing for HIV/AIDS-inclusive expansion of Universal Health Coverage.

CDC Foundation, 2014-2016. Developed costing tool on cervical cancer screening and treatment (second module of WHO Cervical Cancer Planning and Costing tool) for low- and middle-income countries. Also wrote user manual, and piloted tool in Zambia.

Swiss Tropical and Public Health Institute, Switzerland and US, 2013-2015. Developed a practical malaria costing methodology for program managers.

International Vaccine Institute, US, 2014-2015. Developed a costing tool for the introduction of cholera vaccine in low and middle-income countries. Piloted the tool in Ethiopia.

SEEKDEVELOPMENT, 2015. Conducted a cost-benefit analysis on the effect of years of education on health outcomes in low and lower-middle-income countries.

University Research Co., 2014. Provided technical expertise on economic analyses of water and sanitation improvements to MCC compact development in Sierra Leone.

GAVI, Switzerland, 2011-2013. Assessed funding proposals and Annual Progress Reports for New Vaccine, Health System Funding Platform and Monitoring Independent Review Committees.

Selected Publications

Ali D., Levin A., Abdulkarim M., Tijjani U., Ahmed B., Namalam F., Oyewole F, and Dougherty L. A cost-effectiveness analysis of traditional and geographic information system-supported microplanning approaches for routine immunization program management in northern Nigeria. *Vaccine*; Jan. 2020.

Pallas S., Ahmeti A., Morgan W., Preza I, Nelaj E., Ebama M., Levin A., Lafond K, and Bino S. Program cost analysis of influenza vaccination of health care workers in Albania. *Vaccine*; 25 Oct. 2019. Available from URL: <http://doi.org/10.1016/j.vaccine.2019.10.027>.

Levin A, Munthali S., Vodungbo V, Rukhadze N, Maitra K, Ashengari T, and Brenzel L, 2019. Scope and magnitude of Private Sector Financing and Provision of Immunization in Benin, Malawi and Georgia. *Vaccine*, <https://doi.org/10.1016/j.vaccine.2019.05.023>.

Khan A, Levin A, Chao D, DeRoeck D, Dimitrov D, Khan J, Islam M, Ali M, Islam T, Sarker A, Clemens J, and Qadri F., 2018. The impact, cost and cost-effectiveness of controlling cholera through the use of oral cholera vaccines in urban Bangladesh: a disease modeling and economic analysis. *PLoS Negl Trop Dis* 12(10): e0006652.

Pecenka C, Munthali S, Chunga P, Levin A, Morgan W, Lambach P, Bhat N, Neuzil K, Ortiz J, and Hutubessy R, 2017. Maternal Influenza Immunization in Malawi: Piloting a Maternal Influenza Immunization Program Costing Tool by examining a prospective program. *PLOS One*: 12 (12): e0190006.

Ngabo, Fidele, Ann Levin, Susan A Wang, Maurice Gatera, Celestin Kayonga, Philippe Donnen, Philippe Lepage, and Raymond Hutubessy, 2015. A Cost Comparison of Introducing and Delivering Pneumococcal, Rotavirus and human papillomavirus vaccines in Rwanda, *Vaccine*: Vol. 33.

Larsen-Cooper, Erin, Emily Bancroft, Sharanya Rajagopal, Maggie O’Toole, and Ann Levin, 2015. Scale matters: A cost-outcome analysis of a mHealth intervention in Malawi. *Telemedicine and eHealth*: doi:10.1089/tmj.2015.0060.

Levin, Ann, Susan Wang, Carol Levin, Vivien Tsu, and Raymond Hutubessy, 2014. Costs of introducing and delivering HPV vaccines in low and lower middle-income countries: inputs for GAVI policy on introduction grant support to countries. *PLOS One*: 9(6): e101114.

Bwire, Godfrey, Mugagga Malimbo, Brian Maskery, Young Eun Kim, Vittal Mogasale, and Ann Levin, 2013. The Burden of Cholera in Uganda. *PLOS Neglected Tropical Diseases*. 7(12): e2545.

Maskery, Brian, Denise DeRoeck, Ann Levin, Young Eun Kim, Thomas Wierzba, and John Clemens, 2013. Strategy, Demand, Management, and Costs of an International Cholera Vaccine Stockpile. *Journal of Infectious Diseases*. (2013) 208 (suppl 1): S15-S22.

Babigumira, Joseph, Ian Morgan, and Ann Levin, 2013. Health Economics of rubella: a systematic review to assess the value of rubella vaccination. *BMC Public Health* 2013, 13:406.

Jit, Mark, Carol Levin, Marc Brisson, Ann Levin, Stephen Resch, Johannes Berkhof, Jane Kim and Raymond Hutubessy, 2013. Economic analyses to support decisions about HPV vaccination in low and middle-income countries: a consensus report and guide for analysts. *BMC Medicine* 2013, 11:23.

Hutubessy, Raymond, Ann Levin, Susan Wang, Winthrop Morgan, Mariam Ally, Nathalie Broutet, Theopista John, 2012. Costing nationwide HPV vaccine delivery in Low and Middle-Income Countries using the WHO Cervical Cancer Prevention and Control Costing Tool: A case study for The United Republic of Tanzania. *BMC Medicine*, 2012, 10:136.

Levin, Ann and Miloud Kaddar, 2011. The Role of Private Sector in Provision of Immunization Services in Low to Middle-Income Countries. *Health Policy and Planning* 2011; 26:i4–i12.

Babigumira, Joseph, Ann Levin, Colleen Burgess, Louis P. Garrison, Jr., Chris T. Bauch, Fiona Braka, William B. Mbabazi, Juliet O. Nabyonga, Emily Simons and Alya Dabbagh, 2010. Assessing the Cost-Effectiveness of Measles Elimination in Uganda: Local Impact of a Global Eradication Program. *Journal of Infectious Diseases*, 204(suppl 1):S116-S123.

Levin, Ann, Colleen Burgess, Louis P. Garrison, Jr., Chris T. Bauch, Joseph B. Babigumira, Emily Simons and Alya Dabbagh, 2010. Global Eradication of Measles: An Epidemiologic and Economic Evaluation. *Journal of Infectious Diseases*, 204(suppl 1):S98- S106.

Levin, Ann, Arnold Fang, Peter Hansen, David Pyle, Ousmane Dia, and Nina Schwalbe, 2010. A Global Health Partnership’s use of time-limited Support to catalyze Health Practice Change: The case of GAVI’s Injection Safety Support. *PLoS ONE* 5(9): e12986. doi:10.1371/journal.pone.0012986.

Kamara, Lidija, Julie Milstein, Maria Patyna, Patrick Lydon, Ann Levin, and Logan Brenzel, 2008. Strategies for financial sustainability of immunization programs. A review of the strategies from 50 national immunization program financial sustainability plans. *Vaccine*, doi: 10.1016/j.vaccine.2008.10.014.

Areas of Expertise: Health economics, health financing, public health, cost-effectiveness, infectious diseases