Curriculum Vitae

Dr. Muhammad Ali Pate

Summary

Dr. Muhammad Ali Pate has a track record of significant leadership in global health, with management experience spanning both Governmental and non-Governmental sectors. He has technical expertise on the subject matter of HIV/AIDS, Tuberculosis and Malaria; a track record of creating impactful and sustainable strategic partnerships; operational management and execution experience in various countries within multi-lateral development contexts; and leadership experience in senior levels in Government. His public-sector experience includes serving as Minister of State for Health in Nigeria for two years, following a successful tenure as Executive Director/Chief Executive of the National Primary Health Care Development Agency (NPHCDA), where he played decisive role in the Global Polio Eradication Initiative's efforts in Nigeria. Prior to his public service in Nigeria he served in various capacities in the Africa and East Asia and Pacific regions of the World Bank Group based in Washington, DC. He also currently serves as Chief Executive Officer of Big Win Philanthropy, a UK- and US-registered private foundation, whose projects include a partnership to accelerate the elimination of mother-to-child HIV infection in Kenya. He also has significant experience working with the private sector to achieve public health outcomes, including serving as an Advisor on the Merck for Mothers initiative. Dr. Pate is an American-trained specialist physician with board certifications in both Internal Medicine and Infectious Diseases. He has a strong academic background, holding a medical degree from Nigeria, an MBA degree with a health sector concentration from Duke University, USA, and a Masters in Health System Management from the London School of Hygiene & Tropical Medicine, UK. He is currently an adjunct professor at Duke Global Health Institute. He is married and a proud father of four daughters and two sons.

Professional Experience

Chief Executive Officer, Big Win Philanthropy^{1,2}, July 31, 2015 - Present

Philanthropic Leadership and Management: Founding CEO, responsible to the Board Chair for overall leadership and management of Big Win Philanthropy's operational and administrative functions.

- Led the definition of the strategic direction and vision for the new UK and US-based philanthropic foundation with substantial endowed assets.
- Managed execution of the organization's strategic agenda of supporting national leaders who aspire to transform their countries' economic trajectory by investing in human capital focused on children and youth.
- Developed an innovative philanthropic business model, recruited and motivated initial core set of staff, identified clients, delivered investment proposals for approval by the Board and guided the team to implement projects working with diverse stakeholders across the public and private sectors.
- Collaborated with the Chief Operating Officer to ensure that the organization's structure, operational policies and other business processes are developed to standards expected of world-class charitable organizations, and that financial resources are planned and utilized

¹ www.bigwin.org

² Big Win Philanthropy in the United Kingdom is a registered charity and company limited by guarantee in England and Wales with registered company number 09595920 and registered charity number 1162036. Its registered office in the UK is at 10 Queen Street Place, London EC4R 1BE. Big Win Philanthropy in the United States is a charitable trust classified by the Internal Revenue Service as a private foundation. Its registered office is c/o Day Pitney LLP, Blue Back Square, 75 Isham Road, Suite 300, West Hartford, CT 06107.

- efficiently and effectively, ensuring value for money while upholding the highest ethical standards and full compliance with regulatory stipulations.
- Promoted the image of the organization to external stakeholders in governments, multi-lateral
 institutions and other non-governmental organizations, through public speaking roles as well
 as strategic media outreach.
- Achieved, within an 18-month period, a good working environment for staff deployed in US, UK, Germany and Kenya, to deliver on a portfolio that includes investments to support: the African Development Bank (AfDB); Harvard's Ministerial Leadership Program for Health, Education and Finance Ministers; Kenya's Council of Governors; and the Liberian Presidency and its Ministry of Education.
- Created genuine partnerships with external stakeholders and internally across a multi-sectoral, diverse, highly motivated team to deliver on the founding mission of the organization and achieve long-term impact.
- Projects have included a strong focus on public health issues, including partnerships to accelerate the elimination of mother-to-child HIV infection in Kenya, tackle child undernutrition in Ethiopia, and address the economic impact of undernutrition across Africa through an innovative and cross-sectoral initiative launched with AfDB.
- Led the creation of a robust risk management framework for the organization to better anticipate and mitigate external and internal risks in its complex operating environment.

Richard L. and Ronay Menschel Senior Leadership Fellowship³ 2016, Division of Policy Translation and Leadership Development Harvard T.H Chan School of Public Health, Boston, MA, USA, August - October 2016

Leadership Development and Translation: Served as senior fellow in this highly selective program that interfaces leadership practice and experience with academia at the School of Public Health.

- Developed and taught a highly rated 8-week graduate level course "Legitimacy and Trust in Community Engagement for Global Health Leadership and Practice".
- Delivered Harvard University-wide seminar, Voices in Leadership, and other invited lectures both at the School of Public Health and the Harvard Business School.

Co-Chair and Founding Board member, Private Sector Health Alliance (PHN)⁴ of Nigeria (supported by Bill and Melinda Gates Foundation), June 2010 - Present

Public-Private Partnership for Health: Co-created this strategic alliance convening key private sector leaders in Nigeria to work with the public sector to accelerate Nigeria's progress in attaining MDGs 4, 5 and 6, in collaboration with MDG Health Alliance.

- As Board chair and mentor to the CEO, helped establish PHN as a premier platform that fosters innovation and creates synergy through value-adding partnerships with various private sector institutions and entrepreneurs, including through a Health Quality Impact Investment Fund and Nigeria Health Innovation Marketplace⁵.
- Co-chaired the Board that raised \$24 million for investments to complement the Nigerian Federal Government's Saving One Million Lives Initiative, which is still ongoing.

Member of Advisory Board, Merck for Mothers, Merck & Co. USA, June 2014 - Present

Innovative Private Sector Investments: Advisor to Merck's \$500 million initiative to catalyze improvements in maternal mortality through partnerships and investments.

• Contributed insights on the interface of the public-private sectors to accelerate progress in reducing maternal mortality and ensure that investments are leveraged for maximum impact. The initiative is active in several countries including Uganda, Senegal, India and Nigeria.

 $^{^3\} https://www.hsph.harvard.edu/policy-translation-leadership-development/senior-leadership-fellows-program/$

⁴ http://www.phn.ng/

http://www.phn.ng/flagship-programs-marketplace.php

Co-chair of Harvard-London School of Hygiene and Tropical Medicine Independent Panel on the Global Ebola Response, February 2014 - December 2015

Thought-leadership on Global Ebola Response: Served as co-chair of this distinguished independent panel to review and advise the global health system on the lessons learned from the 2014 West African Ebola Outbreak.

• The work of the panel focused on lessons for global health governance, international health regulations, research and development and response to the Ebola outbreak. Findings were published in the Lancet and presented at various conferences and directly to West African Heads of State to facilitate application of lessons learned to improve future responses to public health emergencies.

Founder and Chairman of the Board of Trustees, Chigari Foundation, Abuja, Nigeria, May 2014 - Present

Civil Society and Community Engagement for Primary Health Care: This non-governmental organization works with network of community leaders in Nigeria to mobilize communities in demand for routine immunization and primary health care services. The work of the NGO is funded by Bill and Melinda Gates Foundation:

- Conducting landscape mapping and social network analysis for community leaders in six Nigerian States
- Supported State Primary Health Care Development Agencies to include demand-creation by community leaders at the grass-roots in their annual work programs funded in partnership with Bill and Melinda Gates Foundation and the Dangote Foundation.
- Contributed in development of community-based training manuals and data tools deployed to increase capacity of local leaders to mobilize their communities in demand for services and for accountability.

Visiting Professor, Duke Global Health Institute⁶, Duke University, Durham, North Carolina, USA, July 2013 - July 2015

Teaching Comparative Health Systems and Advisory: Served as a visiting professor, with University funding and grant-support from the Bill and Melinda Gates Foundation;

- Designed and taught a graduate-level comparative health systems course, "Health systems in developing countries" for Masters in Global Health students.
- Provided advisory services in support of completing polio eradication, improving routine immunization and primary health care in Nigeria.
- Provided consulting services in global health and development to various institutions, including the United Nations Population Fund on Demographic Dividend in the Sahel region of West Africa, June-October 2014.
- Participated in University-wide academic activities and completed work on a chapter for a book: Africa's population dynamics.

Chair and Vice-Chair, Global Agenda Council on Population Growth, World Economic Forum (WEF), June 2011 – June 2013

Thought-leadership on Demographic dynamics: As member of the WEF Global Agenda Council on Population Growth:

- Contributed to the publication "Seven Billion and Growing", led a WEF Case Study on Nigeria's Prospects for Reaping the Demographic Dividend, which was launched in May 2014.
- Participated in a panel on Sustainable Future Health Systems in the Future Economy at the WEF Annual Meeting of the New Champions in Tianjin, China, September 11 13, 2012.
- Participated in panel on Population Growth Dynamics in Africa at the WEF Africa meeting, Addis Ababa, May 2012.

 $^{^6\} After\ July\ 2015,\ Adjunct\ Professor\ at\ the\ Institute.\ https://globalhealth.duke.edu/people/faculty/pate-muhammad$

 Participated in panel on Non-Communicable Diseases at WEF Annual Meeting in Davos-Klosters, Switzerland, January 2012, and at the WEF Meeting in Dalian China, September 2013.

Federal Cabinet Minister (Minister of State for Health), Federal Republic of Nigeria, July 2011 – July 2013

National Economic Management: In addition to serving at the Federal Cabinet, served on the National Economic Management Team (NEMT) chaired by the President.

- NEMT was comprised of Ministers and Private Sector leaders to advise on formulation of policies and strategies for national economic development.
- Coordinated the work of the national committee that developed palliative measures as part of structural reform of the Nigerian economy through petroleum subsidy removal. Through this work, gained deeper insights into national fiscal policy, witnessed the rebasing of Nigeria's GDP, and worked to address the implications of the transition to middle-income country status with graduation from concessionary development finance.
- Extensive public communications experience through interviews with national and international media outlets to promote the Government reform agenda. Played a role in managing the public crisis following withdrawal of the petroleum subsidy by the Federal Government in January 2012.
- Developed reform agenda for unlocking the market potential of the private sector in health, which aimed to release policy, regulatory and capital constraints.

Global Disease Eradication: Appointed by the President to Chair the Presidential Task Force on Polio Eradication, providing national leadership to complete the task of polio eradication.

- Led diverse national and international stakeholders, within a global partnership, devising technical innovations and enhancing accountability to deliver on the set objectives.
- Led the establishment of Nigeria's Polio Emergency Operations Centers in 2012, to ensure evidence-based, data-driven, quality execution and accountability in the polio eradication program. The EOCs were established with support from Gates Foundation in collaboration with US CDC, WHO and UNICEF. The EOC ultimately became the bulwark for Nigeria's response when the West African Ebola outbreak occurred in 2014.
- Impact of this work was population immunity rising from 44% in 2008 to 88% by 2013, leading to interruption of WPV3 (November 2012) and Nigeria being polio-virus-free for two years 2014-2016.

Primary Health Care Systems: In the context of a fiscally decentralized federal system of governance, led the national program for reviving the primary health care system.

- Led design of a Reproductive, Maternal, Newborn and Child Health Program consisting of both supply-side and demand side interventions. Under this program more than 1.5 million women annually received antenatal care, reproductive health services and child care interventions through the primary health system.
- Independent impact evaluation by the World Bank showed that the Maternal Child Health program implemented successfully increased skilled birth attendance by 14% within 9 months⁷. This work resulted in the World Bank publishing a Science of Delivery case study to demonstrate how deliberate policies and investments can lead to rapid progress in saving the lives of mothers and children⁸.
- Revived routine immunization policies and the introduction of new vaccines in the country, which successfully introduced the new meningococcal A conjugate vaccine in November 2011, with reduction of seasonal meningococcal disease from 50,000 cases in 2009, to fewer than 1,000 cases in 2013.

8 http://siteresources.worldbank.org/INTDEVIMPEVAINI/Resources/3998199-1369066021766/SoD-Nigeria.pdf

⁷ http://pubdocs.worldbank.org/en/284981453222884744/Policy-brief-Nigeria-SURE-P-MCH-IE.pdf

- Introduced the Pentavalent vaccine in 2012, which includes *Haemophilus Influenzae type b* conjugate vaccine, in to the national vaccine program; and obtained approval and funding for introduction in 2013 of pneumococcal conjugate vaccine.
- Used the approach of deliverology to provide policy oversight and direction for the implementation of primary health care system reforms, including development and execution of the Performance-based financing pilots and the results-focused "Saving One Million Lives" (SOML) Initiative launched by the President of Nigeria, that focuses on accountability for results at the sub-national levels.
- Created a Delivery Unit that primarily focuses on data analysis and use for performance management and accountability both at national and sub-national levels. This work has continued three years later.
- Effectively mobilized stakeholders, including community leaders and non-governmental organizations on reproductive health rights, prevention of stigma and discrimination under any guise, and working with organizations of people with disability to promote inclusion.

Fundraising for Health: Successfully mobilized more than US\$1 billion in additional financing for primary health care in Nigeria, allocated towards outcomes and results rather than inputs.

- The SOML program's fiduciary system was appraised independently by World Bank/GFATM and other partners and found to be adequate, leading to US\$500m Federal funding and US\$500m IDA financing for the program.
- By instituting rigorous and focused accountability and performance management mechanisms, the SOML initiative contributed to saving more than 1 million lives in 2 years. Other examples of outcomes of SOML include partnerships with Born Free, which increased by three-fold the percentage of pregnant women tested and receiving interventions for mother-to-child transmission of HIV.
- Contributed to the creation of an innovative basket funding mechanism for routine immunization and primary health care in 6 States in partnership with the Bill and Melinda Gates Foundation and the Dangote Foundation.

Health Care Quality Improvement: Led the introduction of a clinical governance initiative to improve quality of care in primary and tertiary facilities thereby reducing preventable deaths in health facilities.

• Worked in collaboration with the US-based Institute for Healthcare Improvement, resulting in the development of a National Quality Strategy, Primary Health Care quality collaboratives and a robust capacity building platform in the Healthcare Leadership Academy.

Coalition Building for Health: Successfully established a coalition of traditional and non-traditional partners to support Nigeria's move to improve basic health care services, which has been sustained.

- Developed a strong coalition to support the Primary Health Care agenda to improve health outcomes. The members of the coalition included WHO, UNICEF, UNFPA, World Bank, GFATM, USAID, DFID (UK), EU, Government of Japan, German KfW, MDG Health Alliance, Bill and Melinda Gates Foundation, Dangote Foundation, the Children's Investment Fund Foundation, McKinsey & Company, General Electric, Clinton Health Access International and the Nigeria Private Health Sector Alliance, who supported various aspects of the Saving One Million Lives Initiative.
- Successfully managed conflicts between stakeholders, including between Federal and State Governments in the implementation of the Primary Health Care agenda.

High-level Representation: Effectively represented the President of the Federal Republic of Nigeria, as Minister of State, in various national and international roles, including:

• Representation of the President in his role as Co-Chair along with Norway's Prime Minister Jens Stoltenberg on the UN Commission on Life-saving Commodities for Women and Children, May 2012 –September 2012. The Commission's work focused on 13 underutilized, underfunded life-saving commodities for maternal, newborn, reproductive and child health.

- Co-chaired over a four-month period the Steering Committee for the implementation of the recommendations of the UN Commission along with Dr. Tore Godal, whose leadership has now contributed to the Global Financing Facility for MNCH.
- Represented President Jonathan in June 2012 at the Nutrition for Growth Summit convened by UK Prime Minister David Cameron during the UK G8 Presidency.
- Represented President Jonathan at the FP 2020 Summit in London and presented Nigeria's increased global commitment to Family Planning.
- Represented President Jonathan at the Global Health Policy Forum held in August 2012 hosted by the UK Prime Minister.
- Actively participated in WHA deliberations through the Nigeria delegations 2009-2013.
- Effectively promoted the Government's efforts to both the Nigerian and international communities through local, national and international media interviews, opinion pieces placed in major media outlets, and direct outreach and advocacy to individual leaders and various organizations.

Chief Executive, National Primary Health Care Development Agency (NPHCDA), Abuja, Nigeria, November 2008 – July 2011

Organizational Management and Leadership: National Primary Health Care Development Agency is Nigeria's largest health parastatal, established by law and governed by a separate and diverse Board.

- Assumed responsibility as Chief Executive in 2008, after a difficult and inconclusive merger
 of the NPHCDA with National Program on Immunization, following the 59th World Health
 Assembly when Nigeria was singled out for threatening the Global Polio Eradication
 Initiative.
- Within 3 years, led institutional reforms and restructuring of the 750-staff strong agency resulting in significant turnaround of its performance along many dimensions. With improved governance, transparency and accountability, the Agency executed impactful initiatives to improve primary health care in Nigeria.
- Recruited Six New Directors to the Agency (3 internal, 3 external), ensuring gender diversity (4 male, 2 female) as well as geo-political balancing without compromising quality. Enshrined a culture of merit- and performance-based management within the large organization in an inclusive, non-discriminatory manner. Ensured for the first-time, a HIV/AIDS workplace policy was put in place and implemented.
- Drove policy reforms such as the Primary Health Care Under One Roof (PHCUOR) Policy and Task Shifting for Community Health Workers. The PHCUOR policy addressed the weakness of local government systems in health by promoting establishment of State Primary Health Care Development Agencies in the 36 States to strengthen State-level engagement in primary health care implementation. The task shifting policy allowed Community Health Workers to insert implantable contraception devices.
- Managed the overhaul of Financial Management and Procurement Systems to efficiently execute the annual budgets to the agency. In 2008, the agency implemented less than 25 percent of its N10 Billion (approx. US\$76million) capital budget. By 2010, it had successfully implemented more than 90 percent of its N17 Billion (US\$120 m) capital budget.
- Ensured credible data, monitoring and evaluation systems were instituted for key national programs. Developed a strong impact evaluation program in collaboration with the Development Impact Monitoring and Evaluation (DIME) Team at the World Bank, which subsequently showed credibly the results of various programs.

Improved Outcomes: Established credible information, monitoring and evaluation systems to demonstrate improvements.

- Routine immunization coverage increased from 42% DPT3 in 2008 (NDHS) to 67% by 2010 (NICS), achieving significant decline in number of unimmunized children in Nigeria.
- Effectively reversed the polio outbreak of 2008 so that by 2010 Nigeria had achieved 95% reduction in polio cases compared to 2009, with consistent evidence of improved quality and

coverage of the immunization program. This led to public acknowledgement of our leadership by Bill Gates during his special address to the World Health Assembly in Geneva in 2011⁹.

Health Human Resources: During the same period, the Agency led design and implementation of an innovative frontline health worker reforms.

- Developed a hub-and-spoke cluster model-based deployment of 4,000 midwives and 1,000 Community Health Workers to 1,000 rural primary health centers within 2 years (Midwives Service Scheme MSS).
- The MSS is acknowledged to be among the largest human resources for health program in Africa and received an award in the Innovations in Government Services and Programs category of the Commonwealth Association for Public Administration and Management (CAPAM) awards in 2012, along with Australia and Canada.
- Integrated Delivery Platform: Successfully attracted vertically-oriented grants for HIV/AIDS for integration into the platform of the primary health care system to achieve results.

Community-based Partnerships: Forged collaborative, strategic partnerships with local traditional, faith-based and nongovernmental entities to drive community awareness and demand for primary health services.

- Developed a community engagement approach based on the networks of community leaders in northern Nigeria, tapping into their local legitimacy and status as trusted channels for influencing communities.
- Successfully resolved the crisis of confidence in the Nigerian polio program through an effective grassroots advocacy and communications approach to rural areas and engaging a network of journalists to dispel misconceptions about vaccinations.

Human Development Sector Coordinator/Senior Health Specialist, East Asia and Pacific Region, World Bank Group, Washington, DC, USA, May 2006 – October 2008

Management Experience in Complex Multilateral Bank: As the Human Development Sector coordinator for the World Bank's work in Papua New Guinea, Timor-Leste and 9 Pacific Island IDA countries:

- Coordinated the work of diverse, multi-cultural teams of professionals in health, education and social protection, monitored and advised on strategic and portfolio matters, including risk management for the Bank's work in the Pacific Islands cluster countries.
- In a client-facing role, led the development of health sector-wide management programs in Samoa and Solomon Islands, in collaboration with colleagues at the Australian Agency for International Development (AusAID) and New Zealand Agency for International Development (NZAID). These programs were innovative in the context of the Pacific region's small and fragile states and aimed to improve the allocative efficiency of public health expenditure and achieve better health outcomes.
- Leveraged the World Bank International Development Association's (IDA) resources with significant resources from the bilateral partners and were ultimately judged as being successful in achieving its objectives upon completion.
- Effectively re-established dialogue in Papua New Guinea on HIV/AIDS and the health sector, which paved the way for an Integrated Bio-Behavioral Survey to be carried out to define effective strategies and interventions. This was done in collaboration with AusAID.
- Contributed in design of the Cambodia Health Sector Support Program, which had an innovative pooled funding arrangement leveraging World Bank IDA resources with significant bilateral funding.
- Served as acting Sector Manager for Health, Nutrition and Population in the entire East Asia and Pacific Region from June 2008 until my appointment to become CEO, NPHCDA in Nigeria.

.

⁹ http://www.gatesfoundation.org/Media-Center/Speeches/2011/05/World-Health-Assembly

Senior Health Specialist (2005–2006) and Public Health Specialist (2002–2005), World Bank Group, Washington, DC, USA, November 2001 – May 2006

Program Leadership and Management in Multilateral Development Bank: As Senior Health Specialist in the World Bank's Africa region, based in Washington DC, received multiple recognition awards for work, which included:

- Led multiple, diverse, multi-sector country task teams to design, deliver and implement large health programs, including supervision of the \$50 million Zambia National Response to HIV/AIDS (ZANARA), which was post-facto by the Bank's Independent Evaluation Group to have substantially achieved its objectives. The achievements included funding 1, 263 community-based initiatives, which was more than 300% of target, reaching 17,000 members of civil society groups and 1.7 million people, establishing 72 district HIV task forces and more than 140 youth-friendly centers.
- Led the team that designed within a record 6-month period the first stand-alone Malaria Booster Project in Africa, the Zambia Malaria Booster Project of US \$20 million, which took a "diagonal" approach. Subsequent ex-post independent evaluation showed it to be successful in improving malaria outcomes.
- Led the design and obtained approval from World Bank IDA Board of the US\$5m Lesotho HIV/AIDS Capacity Building Project. This Lesotho project was the first innovative project whereby one donor supported technical assistance to increase capacity of a country to implement a program funded by another donor (GFATM). The World Bank Independent Evaluation of the Project revealed it to have significantly improved Lesotho's capacity to utilize GFATM resources, and the project was successful.
- Successfully managed large-scale project procurement, financial management systems and disbursement of Credits, Loans and Grants within stringent World Bank fiduciary standards.
- Contributed sectoral expertise to development of Country Assistance Strategies, evaluations
 for IDA country allocations, Bank-Country policy dialogue on the Highly Indebted Poor
 Country initiative for debt forgiveness and budget support through Poverty Reduction
 Strategy Credits.
- Experienced in application various World Bank Group operational instruments, such as Sector Investment Loans/Grants; Adaptable Grant/Lending, and Budget support/PRSC (later in Nigeria, applied Results-Based Financing and assisted design of the new P4R instrument from Country client perspective).

Knowledge Management and Partnerships: Led Advocacy, Analytical and Advisory (AAA) products, with excellent understanding of various World Bank Group Instruments. These include:

- Assessment of Community Health Financing and Human Resource for Health in Zambia, commissioning of Health Public Expenditure Review and contribution to World Bank's Country Assistance Strategy for Zambia.
- Managed the stabilization and re-establishment of the Bank's partnership in Zambia in 2001-2003 by engaging in dialogue through an Intensive Learning Completion Report for the Bank's flagship Health Sector Support Program.
- Provided technical expertise on HIV/AIDS within the World Bank, contributing to the design
 of the Mozambique HIV/AIDS Project, the Ethiopia HIV/AIDS Response Project and its
 Joint Annual Health Review process. Was a member of the high-level HIV/AIDS Treatment
 Committee set up by the Africa Regional Vice-President in 2001.
- Technical support in design of the HIV/AIDS program in Guyana in the Latin America and Caribbean region.
- Collaborated successfully at country-level in partnerships with Governments, multi-lateral and bi-lateral development institutions.

Health Specialist, seconded from World Bank to the District of Columbia Government Department of Health, USA, June 2001 – November 2001

US Domestic Support: As World Bank health specialist, seconded for 6-months to work with the Government of the District of Columbia in its health sector reforms, led by Mayor Anthony Williams, which saw expansion of access to health services for the poor by increasing the Medicaid threshold and encouraging community health networks.

- Led the production of a relevant case study of DC Health Sector Reforms to Improve Service Delivery for the Poor, which was presented at the IESE Conference on Health Sector Reforms in Malaga, Spain, February 2002.
- Assisted staffers in the Department of Health in their development of a bio-terrorism surveillance plan for the District of Columbia following the September 2001 terrorist attacks in New York and the Anthrax attacks in DC.
- Contributed to the development of a Government White Paper on the Medicaid Disproportionate-Share Hospital funding in the District of Columbia.

Young Professional/Health Specialist, Africa Region, World Bank Group, Washington, DC, USA, August 2000 – June 2001

Program Evaluation: As a health specialist in the World Bank, during the early years of the Multicountry HIV/AIDS Program and prior to establishment of the GFATM or PEPFAR;

- Led the evaluation of one of the earliest World Bank-funded HIV/AIDS and STI Projects, the Kenya Sexually Transmitted Infections Project.
- Provided technical and operational support to various health teams in the Eastern and Southern Africa cluster including Malawi, Lesotho and Kenya.

Instructor in Medicine and Infectious Diseases Fellow, University of Rochester, Rochester, New York, USA, July 1998 – July 2000

Clinical Infectious Disease Fellowship: Served as Instructor in Medicine and Fellow in Infectious Diseases at the largest, 850-bed referral hospital in Upstate New York.

- The University hospital was an AIDS Clinical Trials Group site and one of the six HIV/AIDS Institutes in the US at that time, when Highly Active Anti-Retroviral Therapy was becoming established.
- Clinical management of HIV/AIDS, MDR-TB and a variety of infectious diseases. Experience in management of inpatient and outpatient HIV/AIDS disease, HIV/AIDS-related opportunistic infections and anti-microbial resistance.
- Clinical teaching of medical students and postgraduate residents in internal medicine and pediatrics.
- Clinical research involving comparison of two alternative treatment strategies in the management of women presenting with combined bacterial vaginosis and mucopurulent cervicitis.
- Upon completion of this fellowship, attained Certification by the American Board of Internal Medicine in the Sub-Specialty of Infectious Diseases.

Resident Physician and Chief Resident (in 1998), Howard University Hospital, DC General Hospital Greater South East Community Hospital, Washington, DC, July 1995 – July 1998

Clinical Medicine Residency: Completed an American Council on Graduate Medical Education-Accredited Postgraduate training in the Specialty of Internal Medicine in an inner-city hospital in Washington, DC.

- Conducted clinical research to describe AIDS-Associated Non-Hodgkin's Lymphoma in an African-American population.
- Chief Resident at the Greater Southeast Community Hospital with leadership responsibility
 over medical residents in rotation at the hospital. At the completion of this residency period,
 attained Certification by the American Board of Internal Medicine in the Specialty of Internal
 Medicine.

Medical Officer, British Medical Research Council Laboratories, Fajara, The Gambia, February 1993 – June 1995

Clinical Medicine: As medical officer at this renown center of excellence in West Africa:

- Practiced medicine and pediatrics in a clinical research setting. The role included support for the largest-ever randomized controlled clinical trial of vaccines in Africa, the Hib conjugate vaccine among Gambian infants with more than 20,000 children enrolled.
- Contributed to the design and implementation of a study of RSV infection among Gambian infants and served as primary physician for commercial sex workers and HIV/AIDS patients attending specialized clinics.
- Contributed to various medical research activities at the MRC laboratories, and led assessment of chloramphenical pharmacokinetics among malnourished Gambian children.
- During this period, passed the Primary Fellowship Examination of the West African College of Physicians.

Assistant Lecturer/Senior House Officer, Ahmadu Bello University Hospital, Nigeria, August 1992 – February 1993

• Clinical medicine at the University Hospital in northern Nigeria.

Medical Officer, Nassarawa Hospital, Kano, Nigeria, July 1991 – August 1992

• Clinical medicine and surgery at a specialist district hospital in northern Nigeria.

House Officer, Ahmadu Bello University Hospital, Kaduna, Nigeria, July 1990 – July 1991

• Postgraduate medical internship at a teaching hospital in Nigeria.

Academic Qualifications

- Master of Business Administration (MBA) Degree and Certificate in Health Sector Management, Duke University, Durham, NC (USA), June 2006
- Master of Science (MSc.) in Health Systems Management, London School of Hygiene and Tropical Medicine, UK, August 2000
- Medical Doctor Degrees (MB; BS) Ahmadu Bello University, Nigeria, June 1990

Other Awards and Recognition

- Senior Fellow of the Nigeria Leadership Initiative (NLI), Inducted at Yale University, New Haven Connecticut, April 2015
- Geneva Health Forum Award, Geneva, Switzerland, May 2014, for outstanding contribution to global health and development
- Harvard Health Leadership Award 2012, Harvard Ministerial Leaders Forum, Harvard School of Public Health/Kennedy School, Boston MA, June 2012
- Honored as *Chigarin Misau*, by HRH Alhaji Muhammadu Manga III, Emir of Misau, Bauchi State, Nigeria 2014, and *Dan Iyan Ibbi*, in Taraba State, Nigeria 2015
- World Bank Spot Award for Effective Team Leadership in 2008, awarded by Country Director for the Pacific Department
- World Bank Spot Award for Effective Team Leadership in 2006, awarded by Director East Asia Human Development
- World Bank Spot Award for Effective Team Leadership in 2005, awarded by Director, Africa Region Human Development
- World Bank Spot Award for Contribution to the HDNHE 2002, awarded by Director Health Nutrition and Population
- Excellence Award, awarded for Peer Review of the US Journal of the National Medical Association, 2003
- Outstanding Performance Award, Howard University Hospital Internal Medicine, 1998
- Merit Award, American College of Physicians, 1997
- Outstanding Performance Award, Howard University Hospital Internal Medicine, 1996
- Merit Award, Ahmadu Bello University Medical Students Association, 1992
- Service Award, International Federation of Medical Students Association, 1990
- Merit Award, Federation of African Medical Students Association, 1989
- Distinctions in Anatomy and Biochemistry, Ahmadu Bello University, Nigeria, 1987
- Distinction in Anatomy, Ahmadu Bello University, Nigeria 1986

Contributions to Peer-reviewed Publications and Book Chapters

- 1. Bali S, Stewart KA, Pate MA. Long shadow of fear in an epidemic: fearonomic effects of Ebola on the private sector in Nigeria. BMJ Global Health 2016;1: e000111. doi:10.1136/bmjgh-2016-
- 2. Moon, S. et al Will Ebola change the game? Ten essential reforms before the next pandemic. The report of the Harvard-LSHTM Independent Panel on the Global Response to Ebola. The Lancet, Volume 386, Issue 10009, 2204-2221
- 3. Emmanuel Jimenez and Muhammad Pate. Reaping a Demographic Dividend in Africa's Largest Country: Nigeria. Africa's Population: In Search of a Demographic Dividend. Eds. Hans Groth, John May. Springer. (In Press, due 2017)
- 4. Upfill-Brown, Alexander M., Hil M Lyons, Muhammad A. Pate et al. "Predictive spatial risk model of poliovirus to aid prioritization and hasten eradication in Nigeria." *BMC Medicine* 12 (2014): 92. *Academic OneFile*. Web. 23 July 2014.
- 5. Ugo Okoli, Laura Morris, Adetokunbo Oshin, Muhammad A Pate, et al. Conditional cash transfer schemes in Nigeria: potential gains for maternal and child health service uptake in a national pilot program. BMC Pregnancy and Childbirth 2014 14: 408. doi: 10.1186/s12884-014-0408-9.
- 6. Abimbola S, Okoli U, Olubajo O, Abdullahi MJ, Pate MA (2012) The Midwives Service Scheme in Nigeria. PLoS Med 9(5): e1001211. doi: 10.1371/journal.pmed.1001211
- 7. Goitom G. Weldegebriel, Alex Gasasira, Pauline Harvey, Balcha Masresha, James L. Goodson, Muhammad A. Pate et al. Measles Resurgence Following a Nationwide Measles Vaccination Campaign in Nigeria, 2005 2008. The Journal of Infectious Diseases 204 Suppl 1(suppl 1): S226-31 · July 2011
- 8. Jimoh L, Pate MA, Lin L, Schulman KA. A model of adoption of ICT by health workers in Africa. International Journal of Med. Informatics. 2012 Nov;81(11):773-81. doi: 10.1016/j.ijmedinf.2012.08.005. Epub 2012 Sep 15
- 9. Greenland, K., Rondy, M., Chevez, A., Sadozai, N., Gasasira, A., Abanida, E. A., Pate, M. A., Ronveaux, O., Okayasu, H., Pedalino, B. and Pezzoli, L. (2011), Clustered lot quality assurance sampling: a pragmatic tool for timely assessment of vaccination coverage. Tropical Medicine & International Health, 16: 863–868. doi:10.1111/j.1365-3156.2011. 02770.x
- 10. Ilyasu, Z. et al. Survey of polio virus antibodies in Kano, northern Nigeria. Vaccine 2014 March 10; 32 (12): 1414-1420
- 11. T. Mangal, B. Aylward, M. Mwanza, A. Gasasira, E. Abanida, M. Pate, N. Grassly. Key Issues in Persistence of Poliomyelitis in Nigeria. The Lancet Global Health 2014: 2; e90-97.
- 12. K. Tulenko, S. Møgedal, M. Afzal, D. Frymus, A. Oshin, M. Pate, et al. Community health workers for Universal health-care coverage: from fragmentation to synergy. Bull World Health Organ 2013; 91:847–852
- 13. Contributor to "The Art of Delivery": McKinsey's Voices on Society, Published 2013 in honor of the 10th Anniversary of the Skoll World Forum.
- 14. Pate, M.A. and Schoppig, J. in Groth, H. and Souza-Poza, A. (eds). Population Dynamics in Muslim Countries: Assembling the Jigsaw. Springer, March 2012. ISBN-10: 3642278809

- 15. Okoli U., Abdullahi M.J., Pate M.A., Abubakar I.S., Aniebue N., West C. "Prenatal care and basic emergency obstetric care services provided at primary healthcare facilities in rural Nigeria". International Journal of Gynecology & Obstetrics. Vol 117 Issue 1, Pages 61-65, April 2012.
- 16. Gupta N., Maliqi B., Franca A., Nyonator F., Pate M.A., Sanders D., et al. "Human resources for maternal, newborn and child health: from measurement planning to performance for improved health outcomes". Human Resources for Health 2011, 9. 16.
- 17. Burns C.C., Shaw J., Jorba J., Bubuk D., Adu F., Gumede N., Pate M.A., et al. "Multiple Independent Emergences of Type 2 Vaccine-Derived Polioviruses during a Large Outbreak in Northern Nigeria". (In Press 2012).
- 18. Brown N., Draetler S., Mitchell W., Pate M.A., Raube K. "Improving the General Management Skills of Primary Health Care Leaders: The 'Mid-Level Management Training' Program in Nigeria". (In Press).
- 19. Wonodi C.B., Privor Dumm L., Aina M., Pate M.A., Reis R., Gadhoke P. and Levine O.S. "Using Social Network Analysis to Examine the Decision-Making Process on New Vaccine Introduction in Nigeria". Johns Hopkins Bloomberg School of Public Health. To be published 2011.
- 20. Pate M.A. in Cochi, Stephen L. and Dowdle, Walter R. (editors). "Disease Eradication in the 21st Century: Implications for Global Health". Strüngmann Forum Report, vol. 7. Cambridge 2011, MA: MIT Press.
- 21. Wassilak S., Pate M.A., Wannemuehler K., et al. "Outbreak of Type 2 VaccineDerived Poliovirus in Nigeria: Emergence and Widespread Circulation in an Under Immunized Population". Journal of Infectious Diseases 2011. 203 (7). 11

- 22. Jenkins H.E., Aylward B.R., Pate M.A., et al. "Implications of a Circulating Vaccine-Derived Poliovirus in Nigeria". New England Journal of Medicine 362. June 2010.
- 23. Seifman R., Pate M.A., Voetberg A. "Designing and Implementing Community based nutrition interventions for HIV/AIDS". Poster presented at the 13th International Conference on HIV/AIDS and Sexually Transmitted Infections, Nairobi, Kenya, 2004.
- 24. Pate M.A., Beeharry G., Abramson W. "Improving health care access for the poor: A case study of the Washington, D.C. public health care reforms". Presented at the 4th Europe and the Americas conference on health sector reforms, February 2002, Malaga, Spain.
- 25. Pate M.A. Global Health Panel, Footprints Conference, Duke University, Durham, North Carolina, April 2007.
- 26. Pate M.A. "Comparative Health Systems". Lecture Presented at Health Care in the 21st Century, Duke University Fuqua School of Business, Durham, N.C. August 2006.
- 27. Pate M.A. "HIV/AIDS treatment in Africa: Is there a role for health technology assessment?" Presentation at the first Health Technology Assessment International conference (HTAi), Canmore, Alberta, Canada, June 2003.
- 28. Weber M.W., Milligan P., Giadom B., Pate M.A., Whittle H., Greenwood B., Mulholland K. "Respiratory Illness after Severe RSV infection in infancy in The Gambia". Journal of Pediatrics Dec 1999. 135 (6): 683–8.
- 29. Pate M.A. and Dawkins F. "Review of AIDS-Associated Non-Hodgkin's Lymphoma in an African-American Population". Presented at First Charles Ireland Research Conference, Howard University Hospital, May 1997.
- 30. Pate M.A., Doh F., Perlin E., Chisholm R., Dawkins F. "AIDS-Associated Non-Hodgkin's Lymphoma in an African-American Population". Journal of the Acquired Immunodeficiency Syndrome and Human Retrovirology. Volume 14, Number 4, April 1997 (also presented as poster at the First National AIDS Malignancy Conference, National Cancer Institute, Bethesda, MD, USA).
- 31. Pate M.A., Adegbola R.A., Ison C., Corrah T. "Neisseria gonorrhoea endocarditis". Tropical Doctor, 1996, 26: 131.
- 32. Pate M.A. "Peak of the Season". Annals of Internal Medicine. Journal of the American College of Physicians. 1996. 124: 69
- 33. Pate M.A. "Neuroimmunological Pathogenesis of Protein Energy Malnutrition: A Hypothesis". Accepted for Publication by the Journal of Medical Hypothesis, November 5, 1993.
- 34. Mukhtar A.S., Pate M.A., Egler J.L. "Knowledge, Attitude and Practice of fresh Nigerian graduates on the prevention of HIV transmission". Abstract no 26, 9th International Conferences on AIDS and 4th Sexually Transmitted Diseases World Congress, Berlin, Germany. June 1993.
- 35. Abdulkadir S.A., Pate M.A. "Vitamin B Complex in Chloroquine Induced Pruritus" (letter). Transactions of the Royal Society of Tropical Medicine and Hygiene. 1990. 84 (6): 898

36. Pate M.A. "The Health Problems of 'Almajiris' in Zaria City, Northern Nigeria". Thesis submitted to the Department of Community Medicine, Ahmadu Bello University, Zaria, in partial fulfilment of the requirements for the award of the MB: BS degrees, June 1990.