## Hiram Dixon (Dykki) Settle, III

Chief Digital Officer PATH

## CAREER SUMMARY

Dykki Settle has more than 25 years of experience in leadership and development of Information and Communications Technology (ICT) and Management Information Systems (MIS) in a wide variety of innovative and global contexts. Mr. Settle is currently PATH's Chief Digital Officer and Director of PATH's Center of Digital and Data Excellence, setting strategy for the organization and leading more than 65 staff over a \$70M portfolio of projects and investments. Notable projects include:

- The <u>WHO/PATH Digital Health Strategic Collaboration</u>, supporting the new WHO Digital Health Department with establishment of the new Digital Health TAG and roster of experts, and digital health donor engagement through organization, facilitation of a Digital Health donor roundtable, and the development of the SDG Global Action Plan's Data and Digital Accelerator Chapter.
- **Digital Square**, the flagship global project for supporting more than 40 partners and 26 digital health global goods used by almost every country in Africa, South Asia and Southeast Asia (see Figure 1), and supporting South Africa in national digital health transformation activities.
- The <u>Tanzania Data Use Partnership</u>: Supporting the government of Tanzania to build governance and leadership mechanisms developing a national digital health strategy and investment roadmap and enterprise architecture to drive digitalization of primary health care nationwide.
- The **<u>BID</u>** (Better Immunization Data) Initiative supporting electronic immunization registries at scale in Tanzania and Zambia, as well as strengthening the nation-wide EIR in Vietnam.
- The <u>Visualize No Malaria partnership</u>, an innovative consortium of private sector partners together powering better technology analytics and use of data for malaria elimination.
- Support to the secondment of the DRC's national digital health advisor to the Minister of Health and establishment of the ANICiiS national digital health agency to ensure strong national ownership and governance and the establishment of a national digital health strategy, while supporting the use of digital health technologies and effective data use in the current Ebola response.

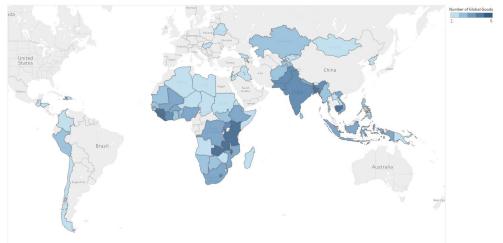


Figure 1: Countries leveraging Digital Health global goods supported by Digital Square & the PATH Center of Digital and Data Excellence

Mr. Settle joined the Digital Health Solutions team at PATH as Deputy Director in 2015, providing technical leadership to a broad portfolio of projects including the Better Immunization Data Initiative, the CDC Global Health Security Agenda, and the Norad-funded 2015 DHIS2 Assessment.

Before joining PATH, Mr. Settle led IntraHealth International's work in digital health and health informatics, including the design, development, and implementation of the international human resource information systems (HRIS) open source health workforce information system software, OpenHIE Health Worker Registry, the mHero health worker communications platform, and other global, country, and regional tools. He has also provided organized and led consortia focusing on HIS and related applications in developing countries, utilizing his open source experience and expertise. His most notable areas of expertise include leading the development and implementation of digital health and health information systems (HIS) stakeholder leadership and ownership programs, Internet database software, global ICT infrastructures, and international HIS and HRIS and technologies. At IntraHealth, Mr. Settle and his team led and supported global health informatics work in more than 20 countries, supported regional teams and activities throughout sub-Saharan Africa, and participated in global conferences and technical leadership groups on health information and the health workforce. Prior to joining IntraHealth in 2001, Mr. Settle led the technology vision and operations for a variety of innovative and entrepreneurial organizations. These positions included the first webmaster of the pioneering open source archive and digital library SunSITE (now ibiblio.org), Chief Technology Officer of Ventana Communications, the first publishing company to sell books and offer free content on the Internet, and CEO of e-commerce innovator catalogue.com. Mr. Settle has a BA in Interdisciplinary Studies in Information and Computer Science from UNC Chapel Hill, and is a certified Enterprise Architect with the Open Group Architecture Framework (TOGAF).

## SELECTED PROFESSIONAL EXPERIENCE

#### PATH, Seattle, Washington

Chief Digital Officer Director, Center of Digital and Data Excellence Board Chair, Digital Square

Leads PATH's digital and data strategic objective – ensuring strong collaborative support for the digital transformation of global health, including multiple country digital health transformation agenda. Leads PATH's newly formed Center of Digital and Data Excellence supporting all of PATH's work in digital and data around the world with oversight of eight directors and a global team of 65 people. Technical lead for the WHO/PATH Digital Health Strategic Collaboration, Co-PI and Board Chair for the USAID/BMGF global flagship digital health project Digital Square.

### Global Program Leader, Digital Health

Lead PATH's global Digital Health program, supporting PATH's digital health projects, activities and global technical leadership agenda. Supported a team of 26 digital health strategists, business analysts, architects and systems integrators around the world. Provided direct technical leadership on a diverse portfolio of projects including USAID/BMGF-funded Digital Square, BMGF Tanzania Data Use Partnership (PI), BMGF BID Initiative, CDC Global Health Security Agenda.

## Deputy Director, Digital Health Solutions

Developed Digital Health Solutions technical strategy and partnerships. Lead evaluation and assessments of software and hardware solutions that are appropriate for use in the developing world across Digital Health Solutions' entire portfolio. Built partnerships with digital health community leaders and the private sector for shared, standards-based solutions. Represented Digital Health Solutions to key stakeholders and the technology development community. Managed members of the Digital Health Solutions international team, as well as partners and country stakeholders to determine appropriate

**2015 to Present** 2019 to Present

2015 to 2016

2016 to 2019

technical assistance required and interventions to develop, pursue, and maintain. Lead proposal writing and business development efforts.

## IntraHealth International, Chapel Hill, NC

# 2001 to 2015

Director, Health Workforce Informatics & Informatics Team Lead, CapacityPlus 2009 to 2015 Developed and led IntraHealth's Health Workforce Informatics strategy, technologies, and approaches that innovated and supported a diverse portfolio of projects and products. Led the Health Workforce Informatics team of 30 professionals worldwide. Created and supported a new regional partnership approach that carried forward open source health workforce information system strengthening efforts in twenty countries, with continued global support of the iHRIS software. Developed and supported several innovations including adapting iHRIS to support the social service workforce in Tanzania and Malawi; developing new technologies including the "mHero" mobile health workforce communication and coordination platform; interactive voice response (IVR) mLearning software piloting in Senegal; a Deans' Dashboard supporting school and university management; and in partnership with MEPI, graduate tracking software to support a better understanding of alumni movements for MEPI schools. Wrote technical briefs on health workforce information systems for WHO and technical leadership resources, including a PEPFAR HRIS Assessment Framework and HRIS Business Case. Developed and continues to support a demographic analysis and report on the 140,000 new health workers produced by PEPFAR (2010 to 2014) and the availability of the WHO HRH Minimum Data Set in national health workforce information systems. Supported and facilitated the WHO Health Workforce Information Reference Group (HIRG), the West Africa Health Organization (WAHO) HIS Partners Forum, and continues to serve as the leader of the PEPFAR Open Health Information Exchange (OpenHIE) Provider Registry community that develops software and new interoperability standards for national health workforce registries. Supported IntraHealth bilateral projects and country teams conducting HRIS strengthening and eHealth capacity building in Angola, Botswana, Democratic Republic of Congo, Ghana, Guatemala, India, Kenya, Namibia, Nigeria, Senegal, Tanzania, Uganda, Kenya, Tanzania, West Bank/Gaza, and Zimbabwe.

#### Director, Health Informatics, Capacity Project

Provided programmatic infrastructure and collaborated with World Health Organization (WHO), World Bank, ECSA Health Secretariat, and others in continuing development of Africa Health Workforce Observatory. Co-author of WHO publication "Monitoring and Evaluation of the Health Workforce." Conducted national HRH and HIS assessments and led HRIS strengthening activities in ten countries in East, Central and Southern Africa. Led the development of the iHRIS suite of open-source HRIS Software, including HRH registration/licensure software, HRH management software, and health workforce planning software.

#### Director, IT/IS,

Designed, implemented, and managed global infrastructure, systems, policies, procedures, and staff for all information systems and data management for IntraHealth and IntraHealth-led projects, including PRIME II and the Capacity Project. Led the development and implementation of global information technology systems for several projects. Designed and implemented operational ICT systems and networks in Senegal, Ghana, Ethiopia, Kenya, and Rwanda. Managed the development and implementation of communication and knowledge management systems, including database driven websites; CD-ROM publications; operational databases; programmatic HMIS, geographic information system (GIS), and pipeline diversity analysis (PDA) data-collection systems; and all associated security and management systems.

# Catalogue.com/NetworkArts, Carrboro, NC

Chief Executive Officer

### 2001 to 2007

1997 to 2000

2006 to 2009

Founded, led, and grew multimillion-dollar e-commerce, online database, and hosting company. Directed operations, sales, design, implementation, and management of more than 40 database driven websites for customers building online commerce, community, and dynamic content publishing systems. Sites hosted by companies did more than \$100 million in sales annually. Led the public offering of NetworkArts in 2000.

## Ventana Communications, Carrboro, NC

1994 to 1997

VP, Chief Technology Officer

Led all technology strategy efforts for \$100M publishing company. Supervise staff of twelve software, multimedia and internet developers. Produced and supported first Internet software products in the retail channel. Developed first website in the publishing industry offering free content and selling books. Developed many 'Online Companion' CD-ROMs placed in back of books.

## EDUCATION

BA, Interdisciplinary Studies in Information and Computer Science, University of North Carolina, Chapel Hill, NC, 1994

## **PROFESSIONAL AFFILIATIONS**

Lancet/Financial Times Commission: Governing Health Futures 2030: Growing up in a Digital World 2019-present

Chair, Board of Directors, Digital Square, 2017 to present

WHO Guideline: <u>Recommendations on Digital Health Interventions for Health System Strengthening</u> Scoping Consultation 2017

USAID NGO mHealth Working Group Advisory Board (www.mhealthworkinggroup.org) 2014-present

Leadership Team, Open Health Information Exchange (OpenHIE) community (<u>www.ohie.org</u>) 2012present

Member, West African Health Organization (WAHO) HIS Partner's Forum, 2011 to 2015

Member, Health Workforce Information Reference Group (HIRG), 2010 to 2015

Vice Chair, Board of Directors, Quality Teaching and Learning Centers, 1997 to present

Board Member, Non-Profit Organization Knowledge Initiative, 2006 to present

## COUNTRY EXPERIENCE

Bangladesh, Botswana, Ethiopia, Fiji, Ghana, India, Israel, Kenya, Lesotho, Liberia, Malawi, Mali, Namibia, Rwanda, South Africa, Senegal, Swaziland, Tanzania, Uganda, Zambia, and Zanzibar.

## SELECTED PUBLICATIONS

[Co-author] Uggowitzer, Steven et al. *Marrying engineering with health policy to bring digital health to scale*. Medicus Mundi Schweiz Bulletin #148. December, 2018

[Co-author] Mehl, Garrett et al. *Classification of Digital Health Interventions v. 1.0.* Report Number: WHO/RHR/18.06. WHO. DOI: 10.13140/RG.2.2.14531.30243, April, 2018

[Co-author] Driessen, Julia et al. Understanding and valuing the broader health system benefits of Uganda's national Human Resources for Health Information System investment. Human Resources for Health. 13:49, 2015

[Co-author] Diedhiou, A et al. *Successful mLearning Pilot in Senegal: Delivering Family Planning Refresher Training Using Interactive Voice Response and SMS*. Global health, science and practice, vol. 3, no. 2, pp. 305-321, 2015

[Co-author] Simuyemba, Moses C et al. *Graduate Tracking Systems for the Medical Schools in Africa: Processes for Developing an Implementation Framework*. Journal of the Association of American Medical Colleges. Volume 89, Issue 8, S112-S113, 2014

[Co-author] Bollinger R, et al. *Leveraging information technology to bridge the health workforce gap*. World Health Organization. 91(11), 890-2, 2013

Settle D. *Greater than the Sum: Technology and Health Systems Strengthening*. Global Health Magazine. Issue 05, 20-22, 2010

Settle D, Campbell J. Taking Forward Action on Human Resources for Health in Ethiopia, Kenya, Mozambique, and Zambia: Synthesis and Measures of Success. Intrahealth, 2010

Settle D. et al *Use of administrative data sources for health workforce analysis: multicountry experience in implementation of human resources information systems*. Handbook on Monitoring and Evaluation of Human Resources for Health: with special applications for low- and middle-income countries. WHO Press, 2009

## SELECTED PRESENTATIONS

[Organizer & Facilitator] Settle D. WHO Digital Donor Co-creation Workshop., ITU AI for Good Summit

[Organizer] Settle D. Universal Health Coverage 2030: Creating a Global Digital Health Dynamic Shaping the 21st Century Economy and Society. WHA72 side event; Geneva, Switzerland: 2019

[Organizer] Settle D. CSIS Health Security Commission Roundtable on Digital Health. Washington, DC; 2019.

[Organizer] Settle D. Data Use Partnership Learning Exchange - Ethiopia, Malawi, South Africa, Tanzania. Cape Town, South Africa; 2018.

[Organizer & Facilitator] Settle D. OpenHIE Implementers' Meeting. Arusha, Tanania; 2018.

[Organizer & Speaker] Settle D. *WP1629: Innovative financing for accelerating and strengthening the scale up of digital health systems.* Wilton Park USA, Washington, DC; 2018

[Panelist] Settle D. Digital Health and Artificial Intelligence for Delivery of Quality Services towards Universal Access to Healthcare. WHA71 official side event; Geneva, Switzerland; 2018

[Organizer & Facilitator] Settle D. *Digital Health: Leveraging Digital Technologies for Universal Health Coverage.* WHA71 side event; Geneva, Switzerland; 2018

[Speaker] Settle D. Digital Health Commonwealth: Creating a Digital Health Dynamic for Universal Health Coverage 2030. WHA71 side event; Geneva, Switzerland; 2018

[Panelist] Settle D. *Digital Health – The Time for Pilots is Over!* Presented at: Geneva Health Forum 2018; Geneva, Switzerland; 2018

[Organizer and Speaker] Settle D. *Digital Health Governance & Leadership*. Presented at: Global Digital Health Forum 2017; Washington, DC; 2017

[Panelist] Settle D. *Toolkit Fair: Which One is Right for You?*. Presented at: Global Digital Health Forum 2017; Washington, DC; 2017

[Panelist] Settle D. Open Source: What does it mean, Whom does it serve? A panel to demystify the meaning, use and value of open source software in the digital age. Presented at: Global Digital Health Forum 2017; Washington, DC; 2017

[Moderator] Settle D. *Exploring Methodologies for Digital Tool Evaluation*. Presented at: Global Digital Health Forum 2017; Washington, DC; 2017

[Sponsor & Co-organizer] Settle D. *WP1571:Digital Health in Africa: Leadership and Coordination*. Presented at: Wilton Park, UK; 2017

[Sponsor, Organizer & Facilitator] Settle D. *Global Digital Health: Aligning private and public sector objectives*. UNGA side event, New York, New York; 2017

[Sponsor & Organizer] Settle D. *Digital Health: A Shared Value Opportunity*. Jeffersonian Dinner, Seattle, Washington; 2017

[Sponsor & Organizer] Settle D. *African Ministerial Dialogue on Digital Health Leadership*. WHA70 side event, Geneva, Switzerland; 2017

[Sponsor & Keynote] *Digital Health Governance, Leadership and Coordination: A Cross-Ministry Workshop.* Washington, DC; 2016

[Organizer & Moderator] Settle D. *Innovations for Country Health Challenges* Presented at: WHO/ITU High-Level Policy Dialogue on Digital Health for Health Lives and Wellbeing for All (SDG3) WHA69 side event, Geneva, Switzerland; 2016

[Sponsor & Keynote] Settle D. *Collaboration for Scaling Digital Health at the National Level*. Presented at: World Bank + USAID donor coordination meeting; Washington, DC; 2016

[Facilitator] Settle D. *Working to Develop the Community Health Workforce* WP1447:Unlocking the community health workforce potential, post-Ebola: what models and strategies work? Presented at: Wilton Park, UK; 2016

[Panel moderator and designer] Settle D. *Keeping Mobile Data Safe: Privacy and Security Issues in Global Health.* Presented at: Global mHealth Forum; Washington, DC; 2015

[Workshop facilitator and organizer] Settle D. *OpenHIE: Promoting Effective Health Information Exchange in Developing Environments.* Presented at: MEDINFO 2015; Sao Paolo, Brazil; 2015

[Event organizer and facilitator] Settle D. Annual Joint Meeting of National Health Information Systems and Integrated Disease Surveillance and Response Managers with Technical and Financial Partners. WAHO; Accra, Ghana; 2015

Settle D. *An Open(HIE) Discussion of Interoperability* and *Ebola: From Tragedy to Strategy*. Presented at: Global mHealth Forum; Washington, DC; 2014

[Panel moderator and designer] Settle D. *From a Thousand Flowers to a National Ecosystem*. Presented at: Global mHealth Forum; Washington, DC; 2014

[Track designer] Settle D. *Collaborative Ecosystems conference track*. Global mHealth Forum; Washington, DC; 2014

Settle D. *IntraHealth Ebola Response: Focusing on Health Workers*. Presented at: Ebola NC conference; RTP, NC; 2014

Settle D. *Security and Privacy at IntraHealth: supporting and protecting the global health workforce.* Presented at: NCHICA AMC Security and Privacy Conference; Chapel Hill, NC; 2014

Settle D. *Immunization Workforce Information Systems*. Presented at: Better Immunization Data (BID) Initiative Tools Developer Summit; Washington, DC; 2013