# CAROLINE **FUHRER**

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## SUMMARY

Dedicated information management and GIS specialist, holding a degree in epidemiology with 5+ years' experience in public health and health emergencies, and a profound understanding of the UN system and the humanitarian sector. Demonstrated experience in web development and passion for data automation and visualization.

## SKILLS

**Data Collection:** LimeSurvey, ODK, Kobo, Esri Survey123; **Database Management:** MS Access, SQL; **Data Analysis & Visualization:** MS Excel, Operations Dashboard for ArcGIS, PowerBI, Python, R, Visual Basic; **GIS and Mapping:** Esri ArcGIS Desktop & Online, QGIS; Web Development: CSS, HTML, JavaScript; **Languages:** English (proficient), French (advanced), German (mother tongue)

## EXPERIENCE

### 03/2018 – ongoing — Health Sector Analyst
*iMMAP — Ethiopia*

- Produce epidemiological analyses of disease outbreaks and other notifiable diseases.
- Produce information products for the Health Cluster and WHO, including but not limited to 3/4Ws analysis, spatial analysis of health care access for IDPs, bi-weekly WHO internal situation report, bi-weekly IDP situation report, Ethiopia update for WHO AFRO Epidemiological bulletin.
- Emergency deployments to support surveillance and information management during outbreaks.
- Provide comprehensive information management trainings in data collection, management and analysis (incl. GIS).

### 03/2017 – 02/2018 — Technical Officer Data Management Analytics & Products (GIS Specialist)
*World Health Organization — Switzerland*

- Produce interactive and static mapping products analysing the trends of epidemics and health emergencies (e.g. food insecurity crisis in the Horn of Africa; Plague outbreak in Madagascar; Rohingya refugee crisis in Bangladesh).
- Maintain the GIS team's spatial reference database and develop an archiving strategy.
- Automate data management workflows and data entry efforts using R, Python and VB.
- Provide remote support to field information management teams in developing and rolling out data collection surveys (e.g. Yemen W4s used by more than 50 partners to track location and capacity of cholera treatment units across the country).

### 12/2014 – 02/2017 — Lead Data Manager, Emergency Operations Center
*World Health Organization — Switzerland*

- Focal point for user management, support, and training for the WHO Emergency management software VSHOC (having ca. 1,000 WHO internal and external users).
- Support the development and configuration of new features in VSHOC (e.g. the Zika response 4Ws platform used by UN agencies and NGOs; the WHO event grading and emergency focal-point database; and an interactive web-based client for GIS mapping of operational information).
- Develop offline templates for VSHOC ensuring data validity of corresponding online forms.
- Provide GIS support to teams within the WHO Emergency Programme (e.g. WHO Influenza team, Middle-East Respiratory Syndrome Coronavirus (MERS-CoV) Task Force).

**10/2016 – 11/2016**       Interim Manager, Strategic Health Operations Center

*World Health Organization Regional Office for Africa (AFRO) – Republic of the Congo*

- Lead the planning, scheduling, organization and monitoring of telecommunication and meetings.
- Responsible for Emergency Operations Center (EOC) daily activities, including equipment maintenance.
- Coordinate and participate the GIS analysis for the Rift-Valley Fever outbreak in Niger.
- Produce infographics published on WHO AFRO webpage on ongoing outbreaks and health emergencies.

**12/2014 – 02/2017**       Data Manager in support to the Ebola response in West Africa

*World Health Organization — Guinea*

- Oversee and evaluate the pilot phase aiming to decentralize the national Ebola case database in Macenta, Guinea, including training local data mangers in data management and analysis.
- Establish and maintain effective information management workflows and ensure timely data sharing between partners responsible for alerts, case management, laboratory testing, and contact tracing.
- Develop an Excel based tool connecting Ebola cases and contacts based on temporal indicators. The application was used in several districts to help map transmission chains.

**09/2014 – 11/2014**       Consultant in support to the Ebola response in West Africa

*World Health Organization — Switzerland*

- Responsible for maintenance and accessibility of key EOC information products.
- Lead the planning, scheduling, organization and monitoring of telecommunication and meetings.

**06/2014 – 08/2014**       Intern, WHO Strategic Health Operations Center

*World Health Organization — Switzerland*

- Responsible for the consolidated Ebola West Africa case database, mainly focusing on data input and data cleansing. This database served as the source for the weekly WHO Ebola Situation report and mapping products during the early months of the outbreak.

**01/2013 – 06/2014**       Thesis Project

*Swiss Tropical and Public Health — Switzerland*

- Development of a VB based teaching tool for public health students and decision makers. This tool illustrates national health priorities for 186 countries based on Global Burden of Disease estimates and cost-effectiveness results from the WHO-CHOICE project.

## EDUCATION AND TRAINING

*University degrees*

**Ongoing**       Master of Science: Geographic Information Systems

           University of Leeds, United Kingdom (Distance Learning Programme)

**2014**       Master of Science: Epidemiology - Graduated Summa Cum Laude

           Swiss Tropical and Public Health Institute, Switzerland

**2012**       Bachelor of Science: Integrative Biology

           University of Basel, Switzerland

*Other trainings and certifications:*

2017        Introduction to Mathematical Models of the Epidemiology & Control of Infectious Diseases
Imperial College London - United Kingdom

2017        Safe and Secure Approaches in Field Environments (SSAFE)
UN System Staff College — Turin, Italy

2016        Introduction to the Incident Command System - Independent study course (E-learning)
Federal Emergency Management Agency (FEMA) – USA

## TEACHING & TRAINING EXPERIENCE

2017        On-site training workshops in the use of the WHO Emergency Management software in Juba (South Sudan), Abuja and Maiduguri (Nigeria)

2017        On-site GIS training workshops for data managers in Abuja and Maiduguri (Nigeria)

2015 – 2016    Bi-weekly interactive training sessions, familiarizing WHO Staff members with the WHO Emergency Management software

2014        "Introduction to health metrics" (part of the course "Epidemiological Methods", organized by the Swiss Tropical and Public Health Institute)

## AWARDS

2017        Director-General's Reward for Excellence in Health Emergencies 2016 – Zika Incident Management Team (team award)

## VOLUNTEER WORK

2017        Expanding your Horizons – Geneva: Co-organizer of the workshop "Become an Emergency Response Specialist with the power of your smartphone!"

## PUPLICATIONS

[World Health Organization, 2015]      Framework for a Public Health Emergency Operations Centre

[N Engl J Med. 2014]      Ebola virus disease in West Africa - the first 9 months of the epidemic and forward projections.