



IDENTITY

Last name: BERRAHO
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Date of birth: 25 august 1972 - Midelt (Morocco)
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AREAS OF EXPERTISE

- Public health ;
- Clinical epidemiology ;
- Evaluative epidemiology ;
- Communicable disease epidemiology ;
- Cancer epidemiology ;
- Epidemiology of diabetes ;
- Tobacco epidemiology ;
- Antimicrobial resistance ;
- Setting up and management of Health Programs ;
- Setting up and management of Disease registers ;
- Development of research project ;
- Management of research projects ;

QUALIFICATIONS (ACADEMIC / TITLES)

- Fez, July 2009; Title of Professor of Higher Education in Clinical Epidemiology ; Public health and Biostatistic - Faculty of Medicine and Pharmacy - Fez.
- Bordeaux, December 2012 National Doctorate (PhD) in Public Health, option Epidemiology, very honorable mention; Bordeaux Segalen University.
- Fez, December 2012 National Doctorate (PhD) in Biology, microbiology option, very honorable mention; Sidi Mohammed Ben Abdellah University of Fez.
- 2011-2012: University Diploma "Health Sciences Pedagogy".
- Fez, July 2008 specialty diploma in Clinical Epidemiology.
- Bordeaux, 2006-2007. Master's degree, mention in Public Health, specialization in Epidemiology and biostatistics. Victor Segalen University Bordeaux 2.
- Bordeaux, 2004-2005. Master's degree in biological and medical sciences, option "Epidemiology and Public Health". Victor Segalen University Bordeaux 2.
- Bordeaux, 2004-2005. Certificate in Biostatistics and Modeling ISPED France. Victor Segalen University Bordeaux 2.

- Bordeaux, 2004-2005. Certificate in Medical Informatics and Communication Technologies, ISPED France, Université Victor Segalen Bordeaux 2.
- Paris, 2003-2004. Interuniversity diploma in statistics applied to clinical research, epidemiology and biology (CESAM), Pierre and Marie Curie University (Paris6), Aix-Marseille II University, Paris VII Denis Diderot University:
 - o Option 1: Statistical methodology;
 - o Option 2: Statistics applied to clinical research (STARC).
- Bordeaux, 2003-2004. University degree "Methods and practice in epidemiology". Victor Segalen Bordeaux University 2.
- Rabat, 2003-2004. Certificate in Intervention Epidemiology: World Health Organization and Ministry of Health.
- Fez, 2003. Residency in epidemiology and public health - Faculty of Medicine and Pharmacy - Fez.
- Rabat, 1998. Doctorate in Medicine at the Faculty of Medicine of Rabat.

PROFESSIONAL EXPERIENCE

- Director of Cancer Research Institute (IRC) – Fez. Since December 2022.
- Professor of higher education in clinical epidemiology at the Faculty of Medicine and Pharmacy of Fez ; since July 2009,
- Hospital practitioner. University hospital center Hassan II – Fez ; since 2003,
- Tutor for the training "University diploma Methods and practice in epidemiology". Victor Segalen Bordeaux University 2. 2007 - 2022.
- Hospital practitioner - local hospital in Rich - Errachidia delegation - Ministry of Health - Morocco - January 1999 - April 2001.
- Hospital practitioner - Moulay Ali Chrif Provincial Hospital - Errachidia - Ministry of Health – Morocco - May 2001 - April 2003.

MAIN NATIONAL AND INTERNATIONAL EXPERTISE

- National expert for WHO (World Health Organization) and the Ministry of Health. PHC and COVID-19 Country Case Studies in the Eastern Mediterranean Region. Jun - September 2022.
- National expert for WHO (World Health Organization) and the Ministry of Health. September 2020 - January 2021. Modeling to assess the impact of the disruption of essential services of the RMNCAH due to the COVID-19 pandemic on maternal and child health in Morocco.
- National expert for WHO (World Health Organization) and the Ministry of Health. January-April 2018. Governance for effective implementation of Morocco's national strategic plan against antimicrobial resistance (AMR).
- Made available to the Ministry of Health (DELM), since mid-March 2020, to contribute to the fight and management of the Covid-19 pandemic in Morocco.
- Member of the national expert committee of the technical and scientific committee of the national program for the prevention and control of influenza and Acute Respiratory Infections,
- Member of the national COVID-19 scientific expert committee.
- Member of the Hassan II Academy consortium for the development of research on COVID-19 in Morocco.
- Member of the national expert committee for the development and implementation of the COVID-19 vaccine strategy.
- Member of the scientific committee of the National Cancer Research Institute (IRC) in Morocco.
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MAIN ACTIVITIES WITHIN LEARNED AND CIVIL SOCIETIES

- Member of the Association of French Language Epidemiologists (ADELF).
- Member of "The International Union Against Tuberculosis and Lung Disease" (IUATLD).
- Member of ADRECE association (Association for the development of clinical research and epidemiology). 2009-2014.
- Member of AMIIS (Moroccan Association of Engineering and Innovation in Health).
- Member of the "Genomics and Metabolic Diseases" association. 2009.
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PEDAGOGICAL AND ADMINISTRATIVE RESPONSIBILITY

- Chairman of the "Societal Role of the Faculty of Medicine and Pharmacy of Fez" commission - since July 2017;
- Responsible for the public health internship; second year of medical studies since 2016;
- Responsible for the research internship for medical students at the Faculty of Medicine and Pharmacy of Fez since 2018;
- Member of the heritage committee - Faculty of Medicine and Pharmacy of Fez since 2013;
- Member of the council of the Faculty of Medicine and Pharmacy of Fez. 2013 - 2014;
- Member of the teaching team of the University Diploma "Epidemiology and Clinical Research". Sidi Mohammed Benabdellah University – Fez – since 2007;
- Member of the teaching team of the University Diploma "Scientific Medical Communication". Sidi Mohammed Benabdellah University – Fez – since 2013;
- Tutor within the framework of the DU Methods and practice in epidemiology. Bordeaux University. Since 2007;
- Member of the national team responsible for the reform of medical studies in Morocco. (Harmonization of medical studies for the 2nd and 5th year);
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MAIN TEACHING AND SUPERVISION ACTIVITIES

- Development and teaching of classes in Epidemiology, public health for students of Faculties of Medicine and Pharmacy in Morocco (Fez, Casablanca, Agadir, Tangier and Oujda) for medical residents and interns, medical teachers, and nurses:
 - Clinical Epidemiology ;
 - Interventional epidemiology ;
 - Evaluative epidemiology ;
 - Biostatistics – Modeling ;
 - Public health ;
 - Nutritional Epidemiology ;
 - Writing and scientific medical communication ;
 - Medical pedagogy ;
 - Health systems and organization of care ;
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- Tutoring for the training "University diploma Methods and practice in epidemiology". Victor Segalen Bordeaux University 2.
- Implementation and supervision of research projects within the doctoral school (Center for Doctoral Studies: Engineering Sciences and Techniques):
 - Precancerous lesions of cervical cancer: Epidemiological profile and determinants;
 - Psychological stress in a university environment: Interventional study integrating mobile technologies;
 - Type 2 diabetes monitoring: Prospective study integrating a mobile measurement and intervention application;
 - Prospective study on the predictive factors of re-hospitalizations for heart failure;
 - EPIDIAM cohort: Study of the determinants of degenerative complications of type 2 diabetes in Morocco.
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- Establishment and supervision of medical thesis subjects;
- Participation in the evaluation of scientific and medical thesis work;
- Development and supervision of thesis subjects at the end of residency and end of study in Master;
- Internship supervision in the epidemiology, clinical research and community health laboratory;
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MAIN RESEARCH ACTIVITIES

- Determinants of access to care for female cancers.
- Head of project: Epidemiology of long covid in Morocco.
- Head of project: Stress in academia design and development of a stress management and monitoring program integrating mobile technologies.
- Head of project: Design and development of a decision support application in the monitoring of diabetics using mobile technologies.
- Head of project: Working conditions among health professionals and their impacts.
- Head of project: Problems of the monitoring diabetes and its complications in Morocco.
- Head of several projects carried out within the framework of the societal role of the Faculty of Medicine and Pharmacy of Fez: Integrated Action for the Prevention and Management of Hydatidosis in the Fes-Meknes region (ActIPPHyd), Project of fight against risky behavior among adolescents in the Fès-Meknes region; School project without tobacco etc.
- Member of the national cervical and breast cancer early detection program evaluation project team.
- Head of project: Determinants of cervical cancer in Morocco.
- Head of project: Determinants of the occurrence and evolution of precancerous lesions of the cervix.
- Head of project: Psychological Stress at University Level: Interventional Study Integrating Mobile Technologies
- Head of project: Type 2 diabetes monitoring: prospective intervention study integrating a mobile monitoring application
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MAIN SCIENTIFIC PRODUCTIONS

A. Thesis, memory and report

- Expert consultation report – WHO - Ministry of Health - Morocco 2022: Primary Healthcare and Covid-19: Case study from Morocco.
- Expert consultation report – WHO - Ministry of Health - Morocco 2020: Modeling to assess the impact of the disruption of essential reproductive, maternal, newborn, child and adolescent health services due to the COVID-19 pandemic on maternal and child health in Morocco.
- Expert consultation report – WHO - Ministry of Health - Morocco 2019: Governance for effective implementation of national strategic plan against resistance to antimicrobials (AMR) in Morocco.
- PHD Bordeaux / Fez 2012 :
 - o Title « Epidémiology of cervical cancer in Morocco ».
- Fez, 2008. Book « stages of diagnosis and results of cancer treatments in Morocco ”- National cancer control and control plan.
- Fez, 2008. Book « the delay in diagnosing cancers in Morocco » National cancer control and control plan.
- Bordeaux, 2007. Master's thesis, "Study of the relationship between body mass index, disability and mortality in the elderly, followed at 13 years of the PAQUID cohort"
- Final report of the International project DISCOMOB (DISpositif Communautaire MOBiles). Septembre 2015.
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B. Book chapter

Mobile Learning, between acceptability and uses: Exemple du système communautaire mobile NICOLAT support d'une communauté d'enseignants de la Faculté des Sciences et Techniques de Fès. Auteurs: Dominique GROUX-LECLET, Ahlame BEGDURI, **Mohamed BERRAHO**. Nom de l'ouvrage: Repenser la formation continue des enseignants en francophonie ; L'initiative IFADEM. pages 165-182. Copyright 2016 © Edition des archives contemporaines

C. Main scientific publications (Last six years)

1. Eva Weissman, Denise Buchner, Nilmini Hemachandra, Khalid Siddeeg, Mohammad Samim Soroush, Ahmed Javed Rahmanzai, Paata Chikvaidze, Zaid Muayad Yassen, Hanan Hasan, **Mohamed Berraho**, Nouzha Dghoughi, Hachri Hafid, Raza Mahmood Zaidi, Wahaj Zulfikar, Sayema Awes, Atiya Aabroo, Qudsia Uzma, Mohamed Abubakar Hagi Mohamed Fiidow, Abdulkadir Wehliye Afrah, Abdullahi Abdulle Ali, Abdulazim Ali Awadalla, Muntasir Mohammed Osman EL Hassan, Esmehan Babeker Elkheir, Theresa Diaz. Benefit-risk analysis of maintaining essential

- Reproductive, Maternal, Newborn, and Child Health (RMNCH) services against risk of COVID-19 infection. *PLOS Glob Public Health*. 2022 Feb 9;2(2):e0000176.
2. Rammouz I, Bouri S, Merzouki M, **Berraho MA**, Aalouane R, Boujraf S. Reliability of self-report of cannabis use among patients with schizophrenia. *Psychiatry Res*. 2022 May;311:114491.
 3. Khalis M, Toure AB, El Badisy I, Khomsi K, Najmi H, Bouaddi O, Marfak A, Al-Delaimy WK, **Berraho M**, Nejari C. Relationship between Meteorological and Air Quality Parameters and COVID-19 in Casablanca Region, Morocco. *Int J Environ Res Public Health*. 2022 Apr 20;19(9):4989.
 4. Chmali K, ElIdrissi M, Abid H, ElIbrahimi A, **Berraho M**, ELMrini A. Aseptic nonunion of the tibia treated by plating and bone grafting: retrospective study about 40 cases. *J Orthop Surg Res*. 2022 Jun 21;17(1):321.
 5. Baldi ME, Laghrissi A, Marso Z, Chellat FZ, **Berraho M**, Tachfouti N, Fakir SE, Mellas S, Fahd AM, Kohen J, Boulaguige F, Naamane J, Lahmadi K, Rhazi KE. Prevalence and associated factors of COVID-19 among Moroccan physicians: A cross-sectional study. *PLoS One*. 2022 Nov 2;17(11):e0277157.
 6. El Madani H, El Harch I, Tachfouti N, El Fakir S, Aalouane R, **Berraho M**. Psychological stress and its related factors among Moroccan nursing students: A cross-sectional study. *Enferm Clin (Engl Ed)*. 2023 May-Jun;33(3):205-215.
 7. Benmaamar S, Kamli A, El Harch I, Chettahi N, Qarmiche N, Otmani N, Tachfouti N, **Berraho M**, Afifi MA, El Fakir S. Validation of the Moroccan Arabic Version of the Pediatric International Knee Documentation Committee Score (Pedi-IKDC) Questionnaire for Children With Knee Disorders. *Cureus*. 2023 Mar 20;15(3):e36391.
 8. Maouiak M, Taybi HEO, Benmaamar S, Harch IE, Diagne BJ, **Berraho M**, Abdellaoui M, Tachfouti N, Andaloussi IB, Fakir SE. Cross-cultural adaptation and validation of the Moroccan version of the Glaucoma Quality of Life-15 (GQL-15) questionnaire in patients with glaucoma. *J Fr Ophtalmol*. 2023 Jun;46(6):581-588. doi: 10.1016/j.jfo.2022.06.017.
 9. El Harch I, Guendaoui S, Charkaoui M, Benmaamar S, Omari M, El Youbi M, Belakhel L, Abouselham L, Hachri H, El Menchay I, El Fakir S, **Berraho M**, Bencheikroun N, Tachfouti. Economic burden of lung cancer in Morocco: A cost of illness study. *N.J Cancer Policy*. 2023 Sep;37:100428. Mohamed Khalis, Aly Badara Toure, Imad El Badisy, Kenza Khomsi, Houada Najmi, Oumnia Bouaddi, Abdelghafour Marfak, Wael K Al-Delaimy, Mohamed Berraho, Chakib Nejari. Relationship between Meteorological and Air Quality Parameters and COVID-19 in Casablanca Region, Morocco. *Int J Environ Res Public Health*. 2022 Apr 20;19(9):4989.
 10. Nadia Benaicha, Adil Najdi, Abdessalam Diarra, Oussmane Désiré Diakite, Oussamne Sy and **Mohamed Berraho**. Moroccan Taxi Drivers Sleepiness Using Epworth Scale: A Cross-sectional Survey. *Journal of Health Science* 5 (2017) 146-151.
 11. Tabril T, Ouazzani Y, Chekira A, Aarab C, **Berraho M**, Aalouane R. The perception of liaison psychiatry by the medico-chirurgical services. *Rev Epidemiol Sante Publique*. 2019 Sep;67(5):345-350.
 12. Nadia Benaicha, Diarra Abdoul Salam, Atassi Mariam, Nabil Tachfouti, **Berraho Mohamed**, Azucena Bardají, Nejari Chakib, Samira El Fakir. Knowledge and Awareness on Breast Cancer among Medical Students in Morocco. *Sch. J. App. Med. Sci.*, 2018; 6(5): 2121-2126.
 13. Yazghich I, **Berraho M**. Cervical cancer in the Maghreb country (Morocco - Algeria - Tunisia) : epidemiological, clinical profile and control policy. *Tunis Med*. 2018 ;96(10-11):647-657.
 14. I. Yazghich, M. Baya, H. El Madani, **M. Berraho**. Étude du profil microbiologique, histologique et épidémiologique des lésions précancéreuses du col de l'utérus au Maroc. *Revue d'Épidémiologie et de Santé Publique*. Volume 66, Supplement 3, 2018. Pages S152-S153,
 15. H. El Madani, I. Yazghich, M. Baya, C. Aarab, **M. Berraho**. Évaluation des méthodes de gestion du stress chez les étudiants de médecine de Fès : données d'inclusion du projet Stress-free. *Revue d'Épidémiologie et de Santé Publique*. Volume 66, Supplement 3, 2018, Page S189.
 16. I. Yazghich , H. El Madani, M. Baya, **M. Berraho**. Determinants of precancerous cervical lesions: A case-control study. *Revue d'Épidémiologie et de Santé Publique*. Volume 66, Supplement 3, 2018. Pages S293-S294.
 17. Obtel M, **Berraho M**, Abda N, Quessar A, Zidouh A, Bekkali R, Nejari C. Factors Associated with Delayed Diagnosis of Lymphomas: Experience with Patients from Hematology Centers in Morocco. *Asian Pac J Cancer Prev*. 2017 ; 25;18(6):1603-1610.
 18. **Berraho M**, Amarti-Riffi A, El-Mzibri M, Bezad R, Benjaafar N, Benideer A, Matar N, Qmichou Z, Abda N, Attaleb M, Znati K, El Fatemi H, Bendahhou K, Obtel M, Filali Adib A, Mathoulin-Pelissier S, Nejari C. HPV and cofactors for invasive cervical cancer in Morocco: a multicentre case-control study. *BMC Cancer*. 2017 Jun 20;17(1):435.