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Strengthening health laboratories in low- and middle-income countries through implementation of a quality management system

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Health laboratories are the eyes and ears of the healthcare system and provide crucial information for correct medical decision making and early disease outbreak detection and response. However, laboratories in low- and middle-income countries have long been a neglected component of healthcare systems and have received limited attention from governments and development aid efforts alike. This has led to a lack of quality assurance of laboratory results and services in low- and middle-income countries, which is the problem addressed in this thesis.

A key intervention to strengthen laboratories is the implementation of a quality management system. Through an analysis of different international quality standards and laboratory strengthening initiatives, and a mixed methods study of quality management system implementation in three national tuberculosis reference laboratories in Africa, information was obtained to develop a method for stepwise implementation of a quality management system based on international standards. This resulted in the World Health Organization's Laboratory Quality Stepwise Implementation (LQSI) tool, available free of charge to laboratories worldwide. The effectiveness of this tool was assessed, providing insights for further optimization. This thesis also discusses directions for future (research into) laboratory strengthening.

TJEERD A.M. DATEMA

BACTERIOLOGIE

TJEERD A.M. DATEMA

HÉMATOLOGIE

TOUT PRELEVEMENT DOIT
ETRE CONSIDERE POSITIF
AU VIH ET MANIPULE
COMME TEL, AVEC
PRUDENCE.

Strengthening health laboratories in low- and middle-income countries

Strengthening health laboratories
in low- and middle-income countries
through implementation of a quality
management system

INVITATION

To attend the public defence of
my PhD thesis

**Strengthening health
laboratories in low- and
middle-income countries**
through implementation of
a quality management
system

On Friday 9 October 2020
at 13.45 in the aula of
the Vrije Universiteit
De Boelelaan 1105
1081 HV Amsterdam

Due to the Corona
regulations the format of
the defence ceremony and
planning of a reception is
not yet clear. Check
datos-advice.nl/phd-datema
for the latest information.

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UITNODIGING

Tot bijwoning van de openbare
verdediging van mijn
proefschrift

—

**Strengthening health
laboratories in low- and
middle-income countries**
through implementation of
a quality management
system

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Op vrijdag 9 oktober 2020
om 13.45 uur in de aula van
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De Boelelaan 1105
1081 HV Amsterdam

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maatregelen is het format
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voor de laatste informatie.

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