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| **ITU-T Focus Group on AI for Health** |
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| **Title:** | Updated DEL10: AI4H use cases: Topic Description Documents |
| **Purpose:** | Discussion |
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| **Abstract:** | This document provides an overview of the "AI4H use cases: Topic Description Documents" developed by the ITU/WHO Focus Group on AI for Health. Each use case is represented by a topic group that is dedicated to a specific health topic in the context of AI. The topic group proposes a procedure to benchmark AI models developed for a special task within this health topic. All members of a topic group develop a topic description document (TDD) that contains information about the structure, operations, features, and considerations of the specific health topic. This document constitutes DEL10.  |

**Call for participation**

If you are interested in contributing to DEL.10\_0 "*AI4H use cases: Topic Description Documents*" you are encouraged to contact Eva Weicken (eva.weicken@hhi.fraunhofer.de) and the FG-AI4H secretariat (tsbfgai4h@itu.int). We would appreciate if you can briefly introduce yourself and your relevant expertise.

Change Notes

This document DEL 10\_0 "AI4H use cases: Topic Description Documents" provides the status of the topic groups and their TDDs and introduces the updated TDD-template FG-AI4H J-105. Previous versions include:

* Version 3 (DEL 10\_0, E-meeting "J", 29 September–02 October 2020)
* Version 2 (DEL 10\_0, E-meeting "I", 7–8 May 2020)
* Version 1 (FG-AI4H-H-210, Brasilia meeting "H", 21–24 January 2020)
* Version 0 with an initial outline (FG-AI4H-G-210, New Delhi meeting "G", 11–15 November 2019)

**CONTENTS**

| Page |
| --- |
| [1 Scope 4](#_Toc62462043)[2 References 4](#_Toc62462044)[3 Terms and definitions 5](#_Toc62462045)[4 Abbreviations 5](#_Toc62462046)[5 Introduction 6](#_Toc62462047)[6 TDD-template update 7](#_Toc62462048)[7 Structure 8](#_Toc62462049)[8 Resources and latest document versions of all topic groups 10](#_Toc62462050)[8.1 Cardiovascular disease risk prediction (TG-Cardio) 10](#_Toc62462051)[8.2 Dermatology (TG-Derma) 10](#_Toc62462052)[8.3 Diagnosis of bacterial infection and anti-microbial resistance (AMR) (TG-Bacteria) 10](#_Toc62462053)[8.4 Falls among the elderly (TG-Falls) 10](#_Toc62462054)[8.5 Histopathology (TG-Histo) 10](#_Toc62462055)[8.6 Malaria detection (TG-Malaria) 10](#_Toc62462056)[8.7 Maternal and child health (TG-MCH) 11](#_Toc62462057)[8.8 Neurological disorders (TG-Neuro) 11](#_Toc62462058)[8.9 Ophthalmology (TG-Ophthalmo) 11](#_Toc62462059)[8.10 Outbreak detection (TG-Outbreaks) 11](#_Toc62462060)[8.11 Psychiatry (TG-Psy) 11](#_Toc62462061)[8.12 Radiology (TG-Radiology) 11](#_Toc62462062)[8.13 Snakebite and snake identification (TG-Snake) 12](#_Toc62462063)[8.14 Symptom assessment (TG-Symptom) 12](#_Toc62462064)[8.15 Tuberculosis (TG-TB) 12](#_Toc62462065)[8.16 Volumetric chest computed tomography (TG-DiagnosticCT) 12](#_Toc62462066)[8.17 Dental diagnostics and digital dentistry (TG-Dental) 12](#_Toc62462067)[8.18 AI-based detection of falsified medicine (TG-FakeMed) 12](#_Toc62462068)[8.19 Primary and secondary Diabetes risk prediction (TG-Diabetes) 13](#_Toc62462069)[8.20 AI and endoscopy (TG-Endoscopy) 13](#_Toc62462070)[8.21 Musculoskeletal Medicine (TG-MSK) 13](#_Toc62462071) |

**List of Tables**

| [Table 1: Overview of the 21 topic groups and their corresponding deliverables 8](#_Toc62462072) |
| --- |
|  |

**List of Figures**

| Page |
| --- |
| [Figure 1: Topic groups and the TDD/deliverables 6](#_Toc62462073)[Figure 2: Interaction between topic groups ('vertical') and working groups ('horizontal') 7](#_Toc62462074) |

FG-AI4H Deliverable 10\_0

AI4H use cases - Topic Description Documents

Summary

The deliverable No. 10\_0 *"AI4H use cases: Topic Description Documents"* of the ITU/WHO Focus Group on Artificial Intelligence for Health (FG-AI4H) serves as an introduction to the 21 use cases, respectively topic groups and their deliverables. The topic groups involve stakeholders from the medical field and ML/AI domain who are dedicated to specific health topics that could benefit from AI. Under the guidance of the topic group driver, the members of each topic group develop a topic description document (TDD) that contains all requirements of the AI-related benchmarking for the respective health topic. The TDD describes the background of the health topic in the context of AI and the structure, operations, and considerations of the topic group. This document provides an overview of the various TDDs developed by the FG-AI4H.

In total there were 21 topic groups established by January 2021. The topic groups represent various health topics in the context of AI including medical fields, e.g., histopathology, cardiology, neurology, and radiology. An overview of all topic groups and their TDDs, including the TDD status, are shown in table 1.

Each topic group works on a TDD that represents the ongoing work of the benchmarking process for the specific health topic. It is an iterative process and updates are provided to each meeting until FG-AI4H will finally approve it.

All topic groups use the same TDD-template following the same structure. By E-meeting 'I' in May 2020 an updated version of the TDD template has been proposed ([FG-AI4H-I-004](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B6701AD5B-8504-4C34-B286-D0388FDAB7B9%7D&file=FGAI4H-I-004.docx&action=default)) that includes a revised structure, additional sections, and a list of optional sub-topics. As requested by all FG-AI4H members during this E-meeting 'I', the TDD-template update received further additions including detailed feedback of all FG-AI4H working groups (WG-DAISAM, WG-DASH, WG-RC, WG-Ethics, WG-CE) and their corresponding deliverables No. 01-09. The objective is to have a consistent TDD structure that works for all topic groups with their individual topics and reflects the requirements defined by the working groups. This also facilitates an internal and external review process of the TDDs before their final approval and publication.

# Scope

This document introduces the topic description documents of the ITU/WHO Focus Group on AI for Health. Further, it provides an overview of the status of the various topic groups, their TDDs and the TDD template update.

# References

[DEL10\_01] FG-AI4H Deliverable DEL10\_01, C*ardiovascular disease management (TG-Cardio).* Last found: including [DEL10\_01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B11B1764A-8644-440D-9386-77E137A9E954%7D&file=FGAI4H-J-006-A01.docx&action=default), *Subtopic: Cardiovascular disease risk prediction using AI.* Last found: [DEL10\_01A](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B46D1EAF2-5BBE-45C5-8AC0-7A7980DD027C%7D&file=DEL10_01A.docx&action=default)

[DEL10\_02] FG-AI4H Deliverable DEL10\_02, *Dermatology (TG-Derma).* Last found: [DEL10\_02](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7BBA8F4EC8-AAAC-4A45-8E6E-AE8E76876D4B%7D&file=FGAI4H-J-007-A01.docx&action=default)

[DEL10\_03] FG-AI4H Deliverable DEL10\_03, *Diagnosis of bacterial infection and anti-microbial resistance (TG-AMR).* Last found: [DEL10\_03](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B65601426-CBB6-46E8-B2A4-CE8564388F9E%7D&file=FGAI4H-J-008-A01.docx&action=default)

[DEL10\_04] FG-AI4H Deliverable DEL10\_04, *Falls among the elderly (TG-Falls).* Last found: [DEL10\_04](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B5A3B1652-82AA-4078-AA7C-C683CB4B0C7E%7D&file=FGAI4H-J-012-A01.docx&action=default)

[DEL10\_05] FG-AI4H Deliverable DEL10\_05, *Histopathology (TG-Histo).* Last found: [DEL10\_05](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B66457851-9BAA-4951-926D-C88747B972A0%7D&file=FGAI4H-J-013-A01.docx&action=default)

[DEL10\_06] FG-AI4H Deliverable DEL10\_06, *Malaria detection (TG-Malaria).* Last found: [DEL10\_06](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B7ED3ECF8-DC3A-4E2C-8F12-4E3B0CE0C9DB%7D&file=FGAI4H-J-014-A01.docx&action=default)

[DEL10\_07] FG-AI4H Deliverable DEL10\_07, *Maternal and child health (TG-MCH).* Last found: [DEL10\_07](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7BBE4DAC0D-BDC0-46AD-B5A9-3D0711889DE5%7D&file=FGAI4H-J-015-A01.docx&action=default)

[DEL10\_08] FG-AI4H Deliverable DEL10\_08, *Neurological disorders (TG-Neuro).* Last found: [DEL10\_08](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B8EE68250-BF96-4955-9552-36618D927809%7D&file=FGAI4H-J-016-A01.docx&action=default)

[DEL10\_09] FG-AI4H Deliverable DEL10\_09, *Ophthalmology (TG-Ophthalmo).* Last found: [DEL10\_09](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B14D68CDE-4C15-4FBF-BE9A-96CFBDAAA53A%7D&file=FGAI4H-J-017-A01.docx&action=default)

[DEL10\_10] FG-AI4H Deliverable DEL10\_10, *Outbreak detection (TG-Outbreaks).*Last found: [DEL10\_10](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7BA2C18C6F-B40D-40C1-8AEE-5B508BC20A13%7D&file=FGAI4H-J-018-A02.docx&action=default)

[DEL10\_11] FG-AI4H Deliverable DEL10\_11, *Psychiatry (TG-Psy).* Last found: [DEL10\_11](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B6BC1071A-D4C4-42F4-84D7-ECDD734D4B3A%7D&file=FGAI4H-J-019-A01.docx&action=default)

[DEL10\_12] FG-AI4H Deliverable DEL10\_12, *Radiology (TG-Radiology).* Last found: [DEL10\_12](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7BC1AB1FD8-5AE5-4EAC-82EA-DE8DB7C9DA14%7D&file=FGAI4H-J-023-A01.docx&action=default)

[DEL10\_13] FG-AI4H Deliverable DEL10\_13, *Snakebite and snake identification (TG-Snake).* Last found: [DEL10\_13](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7BE131305C-B752-4457-BF65-5D7D8AA8AA9C%7D&file=FGAI4H-J-020-A01.docx&action=default)

[DEL10\_14] FG-AI4H Deliverable DEL10\_14, *Symptom assessment (TG-Symptom).* Last found: [DEL10\_14](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B0C9C76BA-6875-40CF-A4C5-0C98A3972C2B%7D&file=FGAI4H-J-021-A01.docx&action=default)

[DEL10\_15] FG-AI4H Deliverable DEL10\_15, *Tuberculosis (TG-Tuberculosis)*. Last found: [DEL10\_15](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7BAFFDA95E-26A2-4F0F-8E4E-393BABAFB6D4%7D&file=FGAI4H-J-022-A01.docx&action=default)

[DEL10\_16] FG-AI4H Deliverable DEL10\_16, *Volumetric chest computed tomography (TG-Diagnostic CT).* Last found: [DEL10\_16](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B557645B9-AB63-4F57-A242-569956CD95C5%7D&file=FGAI4H-J-009-A01.docx&action=default)

[DEL10\_17] FG-AI4H Deliverable DEL10\_17, *Dental diagnostics (TG-Dental).* Last found: [DEL10\_17](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B39492A27-2C34-43E4-A863-0D582B353F86%7D&file=FGAI4H-J-010-A01.docx&action=default)

[DEL10\_18] FG-AI4H Deliverable DEL10\_18, *AI-based detection of falsified medicine (TG-FakeMed).* Last found:[DEL10\_18](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7BAD4106A7-5476-4669-ABA6-BAEE38D5A883%7D&file=FGAI4H-J-011-A01-R01.docx&action=default)

[DEL10\_19] FG-AI4H Deliverable DEL10\_19, *Primary and secondary Diabetes risk prediction (TG-Diabetes).* Last found: [DEL10\_19](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B98EAF638-B404-49C5-92D3-EA91F6B92DFB%7D&file=FGAI4H-J-024-A01.docx&action=default)

[DEL10\_20] FG-AI4H Deliverable DEL10\_20, *AI for endoscopy (TG-Endoscopy).* Last found:[DEL10\_20](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7BD2F7604A-3B1D-4582-92C7-CFE879AD28AB%7D&file=FGAI4H-J-025-A01-R01.docx&action=default)

[DEL10\_21] FG-AI4H Deliverable DEL10\_21, Musculoskeletal medicine *(TG-MSK). The TDD will be submitted to meeting "K"*

NOTE: Literature references are listed in the bibliography.

# Terms and definitions

This document does not rely on terms defined elsewhere. It also does not define any new terms.

# Abbreviations

|  |  |
| --- | --- |
| AI | Artificial Intelligence |
| AI4H | Artificial Intelligence for Health |
| CfP | Call for Participation (to join a Topic Group) |
| FG-AI4H | Focus Group on Artificial Intelligence for Health |
| ITU | International Telecommunication Union |
| MCH | Mother and child health |
| ML | Machine Learning |
| MSK | Musculoskeletal |
| TDD | Topic Description Document |
| TG | Topic Group |
| WG | Working Group |
| WHO | World Health Organization |

# Introduction

This draft gives an overview of the various topic description documents developed by the ITU/WHO Focus Group on AI for Health, which is a collaboration between the International Telecommunication Union (ITU) and the World Health Organization (WHO). The initiative is creating a framework for the standardized benchmarking of AI technology for health and operates at the interface of multiple fields, including AI, machine learning, medicine, public health, regulation, statistics, evaluation, and ethics.

The activities of the initiative include topic groups that take charge of specific health domains with corresponding AI/ML tasks. Each topic group develops a topic description document (TDD) under the guidance of a topic driver. Each TDD introduces the health topic being explored, explains the role of AI within this context, and proposes a procedure to benchmark AI models developed for a specific task. The topic description documents also provide information about the structure, operations, features, and considerations of the topic groups. The topic description documents are written in a collaborative effort and are iteratively improved over time. Topic group members are stakeholders from the medical field and the AI/ML domain dedicated to specific health topics that could benefit from AI.

 

Figure 1: Topic groups and the TDD/deliverables

A generic outline of the topic description documents was proposed in the TDD-template document [FGAI4H-C-105](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B50606D7D-9BF3-4019-8B64-23E4D5BABBE6%7D&file=FGAI4H-C-105.docx&action=default) and can be categorized into four components:

* *Topic background*: What is the health topic considered? Is this of relevance (e.g., does it affect a large and diverse transect of the global population and/or represent a challenge to the healthcare community)? What is the current gold standard for addressing this health topic? Could AI provide a tangible improvement (e.g., in terms of better care, better results, and/or savings in cost and time)? Are there existing AI solutions for this health topic? Has work been made toward benchmarking the aforementioned solutions?
* *Topic group features*: What subtopics belong to the topic group? How do members of the topic group participate and interact (e.g., via online communication)?
* *Topic group operations*: How will the benchmarking be executed (e.g., with regard to input/output data, data labelling, scores/metrics, and architecture)? How will the outcome of the benchmarking be disseminated? How will feedback be implemented?
* *Topic group considerations*: How are ethics and legalities addressed by the topic group?

In the end, a Declaration of Conflict of Interest by each contributor to this document is provided.

As progress is made within the topic groups, revised versions of the topic description documents are inevitable. These are submitted as input documents and are presented at each meeting by the topic group driver. The changes are discussed and integrated into the improved version. Because of the dynamic nature of the topic groups, however, some are still awaiting the preparation of their topic description document.

Parallel to the topic groups, there are working groups that are dedicated to overarching themes that affect all topic groups in a specific aspect of an AI health application, for example, the working group on 'Regulatory Considerations on AI for Health' and the working group on 'Ethical Considerations on AI for Health.' Working groups also develop definitions of best practices, establish processes and related policies, define ways to successfully benchmark AI for health algorithms and create reference documents. All these considerations are important for the benchmarking process of all topic groups in the context of the special health topic and are also considered in their TDD.

Figure 2 gives an overview about the interaction between FG-AI4H topic groups ('vertical') and working groups ('horizontal').



Figure 2: Interaction between topic groups ('vertical') and working groups ('horizontal')

# TDD-template update

As of meeting 'H', FG-AI4H members resolved an update of the generic TDD template [FGAI4H-C-105](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B50606D7D-9BF3-4019-8B64-23E4D5BABBE6%7D&file=FGAI4H-C-105.docx&action=default) that became obvious during the formation process of the TDD and the development and activities within FG-AI4H working groups and topic groups over time. The objective is to create a consistent structure of the TDD template that works for all topic groups and also facilitates the internal and external review process of the TDDs.

A revised version of the TDD template document was submitted as "Draft updated TDD template," allocated as [FGAI4H-I-004](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B6701AD5B-8504-4C34-B286-D0388FDAB7B9%7D&file=FGAI4H-I-004.docx&action=default) to meeting 'I' (E-meeting) in May 2020, including additional sections, change notes, mentioning of the contributors, restructuring of some sections, lists of figures and tables, consideration of health economics and regulation, and a list of optional sub-topics.

During this meeting, FG-AI4H members agreed on further adjustments and more detailed information about the requirements defined by the working groups and their output documents (deliverables 01 – 09) on regulatory, - ethical, - evaluation, - and data specification considerations. The feedback received by the editors of the deliverables 01 – 09 have then been implemented in the TDD-template update. The document was submitted to FG-AI4H meeting 'J' (E-meeting) in September 2020. Followed by the FG-AI4H approval process, feedback of members and final changes have been added. The updated TDD-template was finally allocated as [FG-AI4H-J-105](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-J-105.docx).

The four components of the TDD (TG-background, TG-features, TG-operations, TG-considerations) described before in chapter 5 have been complemented and updated.

Updates include:

* a new structure with more guidance
* an updated table of contents
* new sections, e.g., regulatory section
* updated sections, e.g., ethical considerations section
* new structuring of the subtopics
* new structuring and description of the benchmarking versions
* a more detailed description of the benchmarking process

All topic groups are asked to merge the content of the former TDD into the updated template by meeting "K" and provide feedback if any issues occurred.

# Structure

This document DEL 10\_0 "AI4H use cases: Topic Description Documents" serves as an introduction to a set of documents that describe several use cases of a specific health topic in the context of AI.

Table 1 gives an overview of the use cases, respectively topic groups, their topic group drivers, and the document number. Starting topic groups might not have a TDD document number yet. As of January, 2021, there were 20 draft versions of topic description documents (out of 21 topic groups in total) published on the website of the FG-AI4H.

Table 1: Overview of the 21 topic groups and their corresponding deliverables

| N° | Topic group | Topic driver(s) | Document (latest version) | Comment |
| --- | --- | --- | --- | --- |
| 10\_01 | Use of AI in cardiovascular disease management (TG-Cardio)* including clinical predictions sub-topic: *cardiovascular disease* *risk prediction*
 | Benjamin Muthambi  | J-006-A01(*including subtopic cardiovascular risk prediction*) | Needs content for subtopic on *cardiac image analysis*.  |
| 10\_02 | Dermatology (TG-Derma) | (Maria Vasconcelos)> Weihong Huang | [same as meeting E]J-007-A01 | Change of TG-drivers  |
| 10\_03 | Diagnosis of bacterial infection and anti-microbial resistance (TG-Bacteria) | Nada Malou  | [initial TDD]J-008-A01 |  |
| 10\_04 | Falls among the elderly (TG-Falls) | (Inês Sousa)> Pierpaolo Palumbo | J-012-A01 | Temporary change of TG-drivers |
| 10\_05 | Histopathology (TG-Histo) | Frederick Klauschen  | [same as meeting I]J-013-A01 |  |
| 10\_06 | Malaria detection (TG-Malaria) | Rose Nakasi  | J-014-A01 |  |
| 10\_07 | Maternal and Child Health (TG-MCH) | Raghu Dharmaraju & Alexandre Chiavegatto Filho  | [same as meeting H]J-015-A01 |  |
| 10\_08 | Neurological disorders (TG-Neuro) | Marc Lecoultre  | J-016-A01 |  |
| 10\_09 | Ophthalmology (TG-Ophthalmo) | Arun Shroff  | J-017-A01 |  |
| 10\_10 | Outbreak detection (TG-Outbreaks) | Stéphane Ghozzi &Auss Abbood | J-018-A01 |  |
| 10\_11 | Psychiatry (TG-Psy) | Nicolas Langer  | [same as meeting I]J-019-A01 |  |
| 10\_12 | AI for Radiology (TG-Radiology) | Darlington Ahiale Akogo  | J-023-A01 |  |
| 10\_13 | Snakebite and snake identification (TG-Snake) | Rafael Ruiz de Castaneda  | J-020-A01 |  |
| 10\_14 | Symptom assessment (TG-Symptom) | Henry Hoffmann  | J-021-A01 |  |
| 10\_15 | Tuberculosis (TG-TB) | Manjula Singh  | [same as meeting I]J-022-A01 |  |
| 10\_16 | Volumetric chest computed tomography (TG-DiagnosticCT) | Kuan Chen | J-009-A01 |  |
| 10\_17 | Dental diagnostics and digital dentistry (TG-Dental) | Falk Schwendicke &Joachim Krois | J-010-A01 |  |
| 10\_18 | Falsified Medicine (TG-FakeMed) | Franck Verzefé | [initial TDD]J-011-A01-R01 |  |
| 10\_19 | Primary and secondary diabetes prediction (TG-Diabetes) | Andrés Valdivieso | J-024-A01 |  |
| 10\_20 | AI for endoscopy (TG-Endoscopy) | Jianrong Wu | J-025-A01-R01 |  |
| 10\_21 | Musculoskeletal Medicine (TG-MSK) | Yura Perov | First-time submission to meeting K | Starting TG |

# Resources and latest document versions of all topic groups

This section contains links to the latest versions of the topic description documents, the "Call for Topic Group Participation" (CfTGP), the respective topic driver, and to the individual collaboration sites of the topic groups.

## Cardiovascular disease risk prediction (TG-Cardio)

*Topic description document* *(latest version):* May 2020 [DEL10.01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_01.docx), [DEL10.01A](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_01A.docx)

*CfP:* <https://www.itu.int/en/ITU-T/focusgroups/ai4h/Documents/tg/CfP-TG-Cardio.pdf>

*Topic driver:* Benjamin Muthambi (Watif Health, South Africa, brm5@caa.columbia.edu)

*Collaboration site:* <https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/tg/SitePages/TG-Cardio.aspx>

## Dermatology (TG-Derma)

*Topic description document (latest version):* [DEL10\_02](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7BBA8F4EC8-AAAC-4A45-8E6E-AE8E76876D4B%7D&file=FGAI4H-J-007-A01.docx&action=default)

*CfP:* <https://www.itu.int/en/ITU-T/focusgroups/ai4h/Documents/tg/CfP-TG-Derma.pdf>

*Topic driver:*  Weihong Huang (Xiangya Hospital Central South University, China, whuangcn@qq.com)

*Collaboration site:* <https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/tg/SitePages/TG-Derma.aspx>

## Diagnosis of bacterial infection and anti-microbial resistance (AMR) (TG-Bacteria)

*Topic description document (initial version):* [DEL10\_03](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B65601426-CBB6-46E8-B2A4-CE8564388F9E%7D&file=FGAI4H-J-008-A01.docx&action=default)

*Call for participation: Awaiting CfTGP*

*Topic driver:* Nada Malou (MSF, France, nada.malou@paris.msf.org)

*Collaboration site:* <https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/tg/SitePages/TG-Bacteria.aspx>

## Falls among the elderly (TG-Falls)

*Topic description document (latest version):* [DEL10\_04](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B5A3B1652-82AA-4078-AA7C-C683CB4B0C7E%7D&file=FGAI4H-J-012-A01.docx&action=default)

*CfP:* <https://www.itu.int/en/ITU-T/focusgroups/ai4h/Documents/tg/CfP-TG-Falls.pdf>

*Topic driver(s):*

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* Pierpaolo Palumbo (University of Bologna, Italy, pierpaolo.palumbo@unibo.it)

*Collaboration site:* <https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/tg/SitePages/TG-Falls.aspx>

## Histopathology (TG-Histo)

*Topic description document* *(latest version):* [DEL10\_05](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B66457851-9BAA-4951-926D-C88747B972A0%7D&file=FGAI4H-J-013-A01.docx&action=default)

*CfP:* <https://www.itu.int/en/ITU-T/focusgroups/ai4h/Documents/tg/CfP-TG-Histo.pdf>

*Topic driver:* Frederick Klauschen (Charité Berlin, Germany, frederick.klauschen@charite.de)

*Collaboration site:* <https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/tg/SitePages/TG-Histo.aspx>

## Malaria detection (TG-Malaria)

*Topic description document (latest version):* [DEL10\_06](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B7ED3ECF8-DC3A-4E2C-8F12-4E3B0CE0C9DB%7D&file=FGAI4H-J-014-A01.docx&action=default)

*CfP:* <https://www.itu.int/en/ITU-T/focusgroups/ai4h/Documents/tg/CfP-TG-Malaria.pdf>

*Topic driver:* Rose Nakasi (Makerere University, Uganda, g.nakasi.rose@gmail.com)

*Collaboration site:* <https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/tg/SitePages/TG-Malaria.aspx>

## Maternal and child health (TG-MCH)

*Topic description document (latest version):* [DEL10\_07](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7BBE4DAC0D-BDC0-46AD-B5A9-3D0711889DE5%7D&file=FGAI4H-J-015-A01.docx&action=default)

*CfP:* <https://www.itu.int/en/ITU-T/focusgroups/ai4h/Documents/tg/CfP-TG-MCH.pdf>

*Topic drivers:*

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*Collaboration site:* <https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/tg/SitePages/TG-MCH.aspx>

## Neurological disorders (TG-Neuro)

*Topic description document* *(latest version*): [DEL10\_08](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B8EE68250-BF96-4955-9552-36618D927809%7D&file=FGAI4H-J-016-A01.docx&action=default)

*CfP:* <https://www.itu.int/en/ITU-T/focusgroups/ai4h/Documents/tg/CfP-TG-Neuro.pdf>

*Topic driver:* Marc Lecoultre (ML Labs, Switzerland, ml@mllab.ai)

*Collaboration site:* <https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/tg/SitePages/TG-Neuro.aspx>

## Ophthalmology (TG-Ophthalmo)

*Topic description document* *(latest version):* [DEL10\_09](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B14D68CDE-4C15-4FBF-BE9A-96CFBDAAA53A%7D&file=FGAI4H-J-017-A01.docx&action=default)

*CfP:* <https://www.itu.int/en/ITU-T/focusgroups/ai4h/Documents/tg/CfP-TG-Ophthalmo.pdf>

*Topic driver:* Arun Shroff (MedIndia, India/USA, arunshroff@gmail.com)

*Collab. site:* <https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/tg/SitePages/TG-Ophthalmo.aspx>

## Outbreak detection (TG-Outbreaks)

*Topic description document (latest version):* [DEL10\_10](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7BA2C18C6F-B40D-40C1-8AEE-5B508BC20A13%7D&file=FGAI4H-J-018-A02.docx&action=default)

*CfP:* <https://www.itu.int/en/ITU-T/focusgroups/ai4h/Documents/tg/CfP-TG-Outbreaks.pdf>

*Topic driver:*

* Stéphane Ghozzi (Helmholtz Centre for Infection Research (HZI), Germany,  stephane.ghozzi@helmholtz-hzi.de)
* Auss Abbood (Robert Koch Institute (RKI), Germany, AbboodA@rki.de)

*Collab. site:* <https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/tg/SitePages/TG-Outbreaks.aspx>

## Psychiatry (TG-Psy)

*Topic description document* (latest version): [DEL10\_11](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B6BC1071A-D4C4-42F4-84D7-ECDD734D4B3A%7D&file=FGAI4H-J-019-A01.docx&action=default)

*CfP:* <https://www.itu.int/en/ITU-T/focusgroups/ai4h/Documents/tg/CfP-TG-Psy.pdf>

*Topic driver:* Nicolas Langer (ETH Zurich, Switzerland, n.langer@psychologie.uzh.ch)

*Collaboration site:* <https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/tg/SitePages/TG-Psy.aspx>

## Radiology (TG-Radiology)

*Topic description document (latest version):* [DEL10\_12](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7BC1AB1FD8-5AE5-4EAC-82EA-DE8DB7C9DA14%7D&file=FGAI4H-J-023-A01.docx&action=default)

*CfP:* <https://www.itu.int/en/ITU-T/focusgroups/ai4h/Documents/tg/CfP-TG-Radiology.pdf>

*Topic driver:* Darlington Ahiale Akogo (minoHealth AI Labs, Ghana, darlington@gudra-studio.com)

*Collab. site:* <https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/tg/SitePages/TG-Radiology.aspx>

## Snakebite and snake identification (TG-Snake)

*Topic description document* *(latest version)*: [DEL10\_13](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7BE131305C-B752-4457-BF65-5D7D8AA8AA9C%7D&file=FGAI4H-J-020-A01.docx&action=default)

*CfP:* <https://www.itu.int/en/ITU-T/focusgroups/ai4h/Documents/tg/CfP-TG-Snake.pdf>

*Topic driver:* Rafael Ruiz de Castaneda (Université de Genève, Switzerland, Rafael.RuizDeCastaneda@unige.ch)

*Collaboration site:* <https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/tg/SitePages/TG-Snake.aspx>

## Symptom assessment (TG-Symptom)

*Topic description document* *(latest version):* [DEL10\_14](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B0C9C76BA-6875-40CF-A4C5-0C98A3972C2B%7D&file=FGAI4H-J-021-A01.docx&action=default)

*CfP:* <https://www.itu.int/en/ITU-T/focusgroups/ai4h/Documents/tg/CfP-TG-Symptom.pdf>

*Topic driver:* Henry Hoffmann (Ada Health, Germany, henry.hoffmann@ada.com) ​

*Collab. site:* <https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/tg/SitePages/TG-Symptom.aspx>

## Tuberculosis (TG-TB)

*Topic description document (latest version):* [DEL10\_15](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7BAFFDA95E-26A2-4F0F-8E4E-393BABAFB6D4%7D&file=FGAI4H-J-022-A01.docx&action=default)

*CfP:* <https://www.itu.int/en/ITU-T/focusgroups/ai4h/Documents/tg/CfP-TG-TB.pdf>

*Topic driver:* Manjula Singh (ICMR, India, singhmanjula.hq@icmr.gov.in)

*Collaboration site:* <https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/tg/SitePages/TG-TB.aspx>

## Volumetric chest computed tomography (TG-DiagnosticCT)

*Topic description document* *(latest version):* [DEL10\_16](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B557645B9-AB63-4F57-A242-569956CD95C5%7D&file=FGAI4H-J-009-A01.docx&action=default)

*CfP:* <https://www.itu.int/en/ITU-T/focusgroups/ai4h/Documents/tg/CfP-TG-DiagnosticCT.pdf>

*Topic driver:* Kuan Chen (Infervision, China, ckuan@infervision.com)

*Collab. site:* <https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/tg/SitePages/TG-DiagnosticCT.aspx>

## Dental diagnostics and digital dentistry (TG-Dental)

*Topic description document* *(latest version):* [DEL10\_17](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B39492A27-2C34-43E4-A863-0D582B353F86%7D&file=FGAI4H-J-010-A01.docx&action=default)

*CfP:* <https://www.itu.int/en/ITU-T/focusgroups/ai4h/Documents/tg/CfP-TG-Dental.pdf>

*Topic drivers:*

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*Collaboration site:* <https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/tg/SitePages/TG-Dental.aspx>

## AI-based detection of falsified medicine (TG-FakeMed)

*Topic description document*: [DEL10\_18](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7BAD4106A7-5476-4669-ABA6-BAEE38D5A883%7D&file=FGAI4H-J-011-A01-R01.docx&action=default)

*CfP:* <https://www.itu.int/en/ITU-T/focusgroups/ai4h/Documents/tg/CFP-TG-FakeMed.pdf>

*Topic driver:* Franck Verzefé (TrueSpec-Africa, DRC, fverzefe@gmail.com)

*Collab. site:* <https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/tg/SitePages/TG-FakeMed.aspx>

## Primary and secondary Diabetes risk prediction (TG-Diabetes)

*Topic description document (latest version):* [DEL10\_19](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B98EAF638-B404-49C5-92D3-EA91F6B92DFB%7D&file=FGAI4H-J-024-A01.docx&action=default)

*CfP:* <https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B546BB29A-191A-435D-A225-4C2878B11577%7D&file=FGAI4H-J-024.docx&action=default>

*Topic driver:* Andrés Valdivieso (Anastasia.ai, Chile)

*Collab. site:* <https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/tg/SitePages/TG-Diabetes.aspx>

## AI and endoscopy (TG-Endoscopy)

*Topic description document*: [DEL10\_20](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7BD2F7604A-3B1D-4582-92C7-CFE879AD28AB%7D&file=FGAI4H-J-025-A01-R01.docx&action=default)

*CfP:* <https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7B871510A1-2865-4F33-9B8F-B57DE7828334%7D&file=FGAI4H-J-025-A02.docx&action=default>

*Topic driver:* Jianrong Wu (Tencent Healthcare, China)

*Collab. site:* <https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/tg/SitePages/TG-Endoscopy.aspx>

## Musculoskeletal Medicine (TG-MSK)

*Topic description document*: Will be submitted to meeting "K"

*CfP:* <https://www.itu.int/en/ITU-T/focusgroups/ai4h/Documents/tg/CfP-TG-MSK.pdf>

*Topic driver:* Yura Perov (EQA, UK)

*Collab. site:* <https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/tg/SitePages/TG-MSK.aspx>

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