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| **ITU-T Focus Group on AI for Health** |
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| **DOCUMENT** |
| **Source:** | Editors |
| **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 was submitted as deliverable No. 10 at the FG-AI4H meeting “J” (e-meeting), 30 September - 2 October 2020. |

**Call for participation**

If you are interested in contributing to the DEL.10 “*AI4H use cases: Topic Description Documents*” you are encouraged to contact Eva Weicken (eva.weicken@hhi.fraunhofer.de) and the Focus Group AI4H secretariat (tsbfgai4h@itu.int) with “AI4H use cases: Topic Description Documents” as email subject. We would appreciate if you can briefly introduce yourself and your relevant expertise. Sought: clinical expertise in a special health topic related to AI, medical informatics, researchers, physicians, and related areas.

Keywords

topic description document, clinical expertise, AI, medicine, use case, benchmarking

Change Notes

This document DEL.10 “AI4H use cases: Topic Description Documents” provides the status of the topic groups and their TDDs and introduces the TDD-template update. It is based on previous versions:

* version 2 (Del.10, e-meeting, 7-8 May 2020)
* version 1 (FG-AI4H-H-210, Brasilia, 2020)
* version 0 with an initial outline (FG-AI4H-G-210, New Delhi, 2019)

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FG-AI4H Deliverable 10

AI4H use cases - Topic Description Documents

Summary

The deliverable No. 10 *“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 20 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 deliverable, the 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 20 topic groups established by September 2020. The topic groups represent various health topics in the context of AI including medical fields, e.g. histopathology, outbreak detection, symptom assessment, and radiology. An overview of all topic groups and their TDDs, including the TDD status, are shown in tables 1 and 2.

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 that is updated to each meeting until the Focus Group on AI for Health will finally approve it.

All topic groups work with the same TDD-template so the TDDs follow the same structure. By meeting ‘I’ in May 2020 an updated version of the TDD template has been proposed that includes a revised structure, additional sections, and a list of optional sub-topics. As requested during this meeting, the TDD-template update received further additions including detailed feedback of all working groups and their deliverables 1-9. The objective is to have a consistent structure of the TDD that works for all topic groups with their individual topics and reflects the requirements defined by the working groups.

# 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 DEL10.1, C*ardiovascular disease management (TG-Cardio).* Last found: [DEL10.01](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_01.docx) , including DEL 10.01A, *Subtopic: Cariovascular disease risk prediction using AI.* Last found:[DEL10.01A](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_01A.docx)

[DEL10.02] FG-AI4H Deliverable DEL10.2, *Dermatology (TG-Derma).* Last found: [DEL 10.2](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7BE3E9821A-BB1A-4B2C-8DD1-1855824AD7A7%7D&file=FGAI4H-I-007-A01.docx&action=default&CT=1591705498560&OR=DocLibClassicUI)

[DEL10.03] FG-AI4H Deliverable DEL10.03, *Diagnosis of bacterial infection and anti-microbial resistance (TG-AMR). Last found: Awaiting TDD*

[DEL10.04] FG-AI4H Deliverable DEL10.4, *Falls among the elderly (TG-Falls).* Last found: [DEL10.04](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_04.docx)

[DEL10.05] FG-AI4H Deliverable DEL10.5, *Histopathology (TG-Histo).* Last found: [DEL10.05](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_05.docx)

[DEL10.06] FG-AI4H Deliverable DEL10.06, *Malaria detection (TG-Malaria).* Last found: [DEL10.06](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_06.docx)

[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/Deliverables/DEL10_07.docx)

[DEL10.08] FG-AI4H Deliverable DEL10.08, *Neurological disorders (TG-Neuro).* Last found: [DEL10.08](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_08.docx)

[DEL10.09] FG-AI4H Deliverable DEL10.09, *Ophthalmology (TG-Ophthalmo).* Last found: [DEL10.09](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_09.docx)

[DEL10.10] FG-AI4H Deliverable DEL10.10, *Outbreak detection (TG-Outbreaks).*Last found: [DEL10.10](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_10.docx)

[DEL10.11] FG-AI4H Deliverable DEL10.11, *Psychiatry (TG-Psy).* Last found: [DEL10.11](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_11.docx)

[DEL10.12] FG-AI4H Deliverable DEL10.12, *Radiology (TG-Radiology).* Last found: [DEL10.12](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_12.docx)

[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/Deliverables/DEL10_13.docx)

[DEL10.14] FG-AI4H Deliverable DEL10.14, *Symptom assessment (TG-Symptom).* Last found: [DEL10.14](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_14.docx)

[DEL10.15] FG-AI4H Deliverable DEL10.15, *Tuberculosis (TG-Tuberculosis)*. Last found: [DEL10.15](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_15.docx)

[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/Deliverables/DEL10_16.docx)

[DEL10.17] FG-AI4H Deliverable DEL10.17, *Dental diagnostics (TG-Dental).* Last found: [DEL10.17](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_17.docx)

[DEL10.18] FG-AI4H Deliverable DEL10.18, *AI-based detection of falsified medicine (TG-FakeMed). Awaiting TDD.*

[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/Deliverables/DEL10_19.docx)

[DEL10.20] FG-AI4H Deliverable DEL10.20, *AI for endoscopy (TG-Endoscopy). The TDD will be submitted to meeting “J”*[DEL10.20](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7BBD0E2C03-06B7-4DB6-963C-609447446130%7D&file=FGAI4H-J-025-A01.docx&action=default)

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 | ITU/WHO Focus Group on Artificial Intelligence for Health |
| ML | Machine Learning |
| TDD | Topic Description Document |
| TG | Topic Group |

# 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.

**FGAI4H use cases = Topic groups**

TG-Cardio TG-Psy

TG-Derma TG-Radiology

TG-Bacteria TG-Snake

TG Falls TG-Symptom

TG-Histo TG-TB

TG-Malaria TG-DiagnosticCT

TG-MCH TG-Dental

TG-Neuro TG-FakeMed

TG-Ophthalmo TG-Diabetes

TG-Outbreaks TG-Endoscopy

**T**opic **D**escription **D**ocument =

Deliverable 10.01 – 10.20

**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 publication 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 processes of all topic groups in the context of the special health topic and are also considered in the TDD.

Figure 2 gives an overview about the interactions between FG-AI4H topic groups and working groups.



Figure 2: Interaction between topic groups (‘vertical’) and working groups (‘horizontal’).

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) including additional sections that became obvious during the formation process of the TDD. The objective is to create a consistent structure of the TDD template that works for all topic groups and facilitates a review process of the TDDs, the deliverables of the topic groups.

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, FGAI4H members decided the TDD template needs further adjustments and more detailed information about the requirements defined by the working groups and their output documents deliverables 1-9 regarding regulatory, - ethical, - evaluation, - and data specifications considerations. The feedback and additions received by the editors of the deliverables 1-9 have been included in the TDD-template update that will be submitted to the FGAI4H meeting “J” (e-meeting) in September 2020.

# Structure

This document DEL. 10 “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. The status of the TDD of each TG is described in table 2 more detailed.

Table 1 – Overview of the 20 topic groups and their corresponding deliverables

| N° | Topic group | Topic driver(s) | Document (latest version) |
| --- | --- | --- | --- |
| 10.1 | Use of AI in cardiovascular disease management (TG-Cardio)* including clinical predictions sub-topic: *cardiovascular disease* *risk prediction*
 | Benjamin Muthambi  | I-006 (general)I-006-A01 (risk prediction) |
| 10.2 | Dermatology (TG-Derma) | Maria Vasconcelos  | I-007-A01 |
| 10.3 | Diagnosis of bacterial infection and anti-microbial resistance (TG-Bacteria) | Nada Malou  | – |
| 10.4 | Falls among the elderly (TG-Falls) | Inês Sousa  | I-012-A01 |
| 10.5 | Histopathology (TG-Histo) | Frederick Klauschen  | I-013-A01 |
| 10.6 | Malaria detection (TG-Malaria) | Rose Nakasi  | I-014-A01 |
| 10.7 | Maternal and Child Health (TG-MCH) | Raghu Dharmaraju & Alexandre Chiavegatto Filho  | I-015-A01 |
| 10.8 | Neurological disorders (TG-Neuro) | Marc Lecoultre  | I-016-A01 |
| 10.9 | Ophthalmology (TG-Ophthalmo) | Arun Shroff  | I-017-A01 |
| 10.10 | Outbreak detection (TG-Outbreaks) | Stéphane Ghozzi  | I-018-A01 |
| 10.11 | Psychiatry (TG-Psy) | Nicolas Langer  | I-019-A01 |
| 10.12 | AI for Radiology (TG-Radiology) | Darlington Ahiale Akogo  | I-023-A01 |
| 10.13 | Snakebite and snake identification (TG-Snake) | Rafael Ruiz de Castaneda  | I-020-A01 |
| 10.14 | Symptom assessment (TG-Symptom) | Henry Hoffmann  | I-021-A01 |
| 10.15 | Tuberculosis (TG-TB) | Manjula Singh  | I-022-A01 |
| 10.16 | Volumetric chest computed tomography (TG-DiagnosticCT) | Kuan Chen | I-009-A01 |
| 10.17 | Dental diagnostics and digital dentistry (TG-Dental) | Falk Schwendicke & Joachim Krois | I-010-A01 |
| 10.18 | Falsified Medicine (TG-FakeMed) | Franck Verzefé | – |
| 10.19 | Primary and secondary diabetes prediction (TG-Diabetes) | Andrés Valdivieso | I-024-A01 |
| 10.20 | AI for endoscopy (TG-Endoscopy) | Jianrong Wu | J-025-A01 |

Table 2 provides details on the preparation of the various topic description documents (TDDs). As of September, 2020, there were 18 draft versions of topic description documents (out of 20 topic groups in total) published on the website of the FG-AI4H.

Table 2 – Details on the preparation of the various topic description documents

| Topic Group | TDD Status | Comment |
| --- | --- | --- |
| Use of AI in cardiovascular disease management (TG-Cardio)including clinical predictions sub-topic: *cardiovascular disease* *risk prediction*  | ongoing work,latest update: meeting ‘H’ | Needs content for subtopic on *cardiac image analysis*. Current version only covers subtopic *cardiovascular disease risk prediction*. |
| Dermatology (TG-Derma) | ongoing work,latest update: meeting ‘E’ |  |
| Diagnosis of bacterial infection and anti-microbial resistance (TG-Bacteria) | forthcoming | starting topic group, established during meeting ‘F’ |
| Falls among the elderly (TG-Falls) | ongoing worklatest update: meeting ‘H’ |  |
| Histopathology (TG-Histo) | ongoing worklatest update: meeting ‘I’ |  |
| Malaria detection (TG-Malaria) | ongoing worklatest update: meeting ‘I’ | subtopic Malaria surveillance |
| Maternal and child health (TG-MCH) | ongoing worklatest update:meeting ‘H’ |  |
| Neurological disorders (TG-Neuro) | ongoing worklatest Update: meeting ‘I’ | subtopic Parkinson’s disease |
| Ophthalmology (TG-Ophthalmo) | ongoing worklatest Update: meeting ‘I’ |  |
| Outbreak detection (TG-Outbreaks) | ongoing worklatest update: meeting ‘I’ | subtopic Dengue surveillance |
| Psychiatry (TG-Psy) | ongoing worklatest update: meeting ‘I’ |  |
| AI for Radiology (TG-Radiology) | ongoing worklatest update: meeting ‘I’ |  |
| Snakebite and snake identification (TG-Snake) | ongoing worklatest update: meeting ‘I’ |  |
| Symptom assessment (TG-Symptom) | ongoing worklatest update: meeting ‘I’ |  |
| Tuberculosis (TG-TB) | ongoing worklatest update:meeting ‘I’ |  |
| Volumetric chest computed tomography (TG-DiagnosticCT) | ongoing worklatest update: meeting ‘I’ |  |
| Dental diagnostics and digital dentistry (TG-Dental) | ongoing worklatest update: meeting ‘I’ |  |
| AI-based detection of falsified medicine (TG-FakeMed) | forthcoming | starting topic group, established during meeting ‘G’ |
| Primary and secondary Diabetes prediction (TG-Diabetes) | ongoing worklatest update: meeting ‘I’ |  |
| AI for endoscopy (TG-Endoscopy) | ongoing work | starting topic group, established during meeting ‘I’  |

# Resources and latest document versions of all topic groups

This section contains links to the latest versions of the topic description documents, the respective topic driver, and links to the collaboration sites and to the “Calls for Topic Group Participation” (CfP).

## 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):* May 2020 [DEL 10.2](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7BE3E9821A-BB1A-4B2C-8DD1-1855824AD7A7%7D&file=FGAI4H-I-007-A01.docx&action=default&CT=1591705498560&OR=DocLibClassicUI)

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

*Topic driver:* Maria Vasconcelos (Fraunhofer Portugal, Portugal, maria.vasconcelos@fraunhofer.pt)

*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: Awaiting TDD*

*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):* May 2020 [DEL10.04](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_04.docx)

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

*Topic driver:* Inês Sousa (Fraunhofer Portugal, Portugal, ines.sousa@fraunhofer.pt)

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

## Histopathology (TG-Histo)

*Topic description document* *(latest version):* May 2020 [DEL10.05](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_05.docx)

*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):* May 2020 [DEL10.06](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_06.docx)

*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):* May 2020 [DEL10.07](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_07.docx)

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

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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*): May 2020 [DEL10.08](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_08.docx)

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

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

## Ophthalmology (TG-Ophthalmo)

*Topic description document* *(latest version):* May 2020 [DEL10.09](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_09.docx)

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

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*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):* May 2020 [DEL10.10](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_10.docx)

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

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

## Psychiatry (TG-Psy)

*Topic description document* (latest version): May 2020 [DEL10.11](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_11.docx)

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

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

## Radiology (TG-Radiology)

*Topic description document (latest version):* May 2020 [DEL10.12](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_12.docx)

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

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*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)*: May 2020 [DEL10.13](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_13.docx)

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

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*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):* May 2020 [DEL10.14](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_14.docx)

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

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

## Tuberculosis (TG-TB)

*Topic description document (latest version):* May 2020 [DEL10.15](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_15.docx)

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

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*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):* May 2020 [DEL10.16](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_16.docx)

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

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*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):* May 2020 [DEL10.17](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_17.docx)

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

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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*: *Awaiting TDD*

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

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*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):* May 2020 [DEL10.19](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_19.docx)

*CfP:* Awaiting CFP

*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*: <https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/_layouts/15/WopiFrame.aspx?sourcedoc=%7BBD0E2C03-06B7-4DB6-963C-609447446130%7D&file=FGAI4H-J-025-A01.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>

Bibliography

[Example of a literature reference in APA style with additional DOI link:]

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