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| **ITU-T Focus Group on AI for Health** |
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| **Abstract:** | This Document discusses the potential creation of a Topic Group on “AI for Universal Health Coverage.” |

1. **Overview**

On 23 September the world’s leaders gathered for the first High Level Meeting on Universal Health Coverage, recognizing that “universal health coverage is fundamental for achieving the Sustainable Development Goals related not only to health and well-being, but also to eradicate poverty in all its forms and dimensions,” and for advancing other priorities ranging from education to women’s empowerment. The Political Declaration called for two immediate actions:

* Covering an additional one billion people with essential health services and products by 2023, and closing the remaining gap completely by 2030, and
* Reversing the trend of “catastrophic out of pocket health expenditure” by assuring financial risk protection and eliminating impoverishment due to health costs.

Innovations enabled by ITU/WHO Focus Group on Artificial Intelligence for Health’s other Topic Groups will play an important role in making health services more accessible and in reducing cost at the system level. At the same time, the Focus Group has an opportunity to play a leading role in outlining how advances artificial intelligence can be applied directly to the systems that finance health and healthcare services, such as national health insurance agencies, national health systems, private sector health insurance providers, and other payors for health. AI use cases, data sets, tools and methodologies developed and/or supported by the Focus Group can help to expand the “universality” of financial protection for health and ensure that UHC initiatives are economically sustainable into 2030 and beyond.

1. **Relevance**

Addressed in previous section.

1. **Impact**

AI can directly provide an improvement relative to the existing practice of health financing. Globally, health insurance – whether underwritten by governments or the private sector – has been one of the slowest fields to embrace digital technologies. Even in contexts where digital tools have transformed other aspects of healthcare, the process of paying for medical services is frequently paper-based, manual, and slow, consuming resources that could otherwise be used to fund health services. In other environments, particularly LMICs, the inefficiency and high relative costs of health payment systems means that financial protection for health is simply too expensive for those who need it most.

A growing base of evidence suggests AI has the potential to address these challenges by contributing across five dimensions of health financing:

* Benefits package design and underwriting: Leveraging AI to design and price the risk associated with new, more responsible health insurance benefits packages, including services that are tailored to specific segments or even to individuals,
* Beneficiary enrolment and premium collection: Using AI to improve the ability of health insurance agencies to enroll and collect funds from participants (a particular challenge for informal workers),
* Claims processing, payment, and reporting: Deploying AI-based models for core health insurance claims administration activities, increasing the speed of claims payment and reducing costs due to manual, paper-based activities,
* Fraud mitigation and quality assurance: Reducing fraud, waste, and abuse in health insurance systems by using AI to flag high-risk claims and to identify broader patterns that may signify improper activity, and
* Service linkages and continuity of care: Combining AI technologies with health insurance claims data to proactively link beneficiaries back to relevant health and other social services (e.g. driving secondary prevention and addressing social determinants of health).

In addition to these direct contributions, AI also has the potential to enable improvements to the performance of health financing systems through indirect impact, including on:

* New financing and reimbursement models: Providing data-driven recommendations on the design and improvement of non-fee-for-service payment models such as value-based care and capitation.
* Cost effective interventions: Analyzing and recommending inventions based on cost effectiveness relative to health impact.
1. **Existing work**

While this project is new, it will leverage a range of small-scale research projects already in place across public and private health insurance programs.

1. **Feasibility**

Based on the current state of the art, this project is feasible. First, the project will develop a set of “archetype” use cases representing different health systems and health financing models. It will subsequently identify potential partners to build out real-world best practice demonstration projects. The methodology and results of these demonstration projects will then be shared out as open source “playbooks” for use by practitioners around the world.

1. **Data availability**

National health insurance agencies, ministries of health, and private sector entities working with health financing have a range of data sets that could be made available to the Topic Group. Additionally, Common Health will commit to sharing certain aggregated, deidentified data to support the work of the Topic Group and will encourage other stakeholders to do the same.

One of the Topic Group’s first activities will be to map potential data sources representing a range of geographic contexts and health financing models.

1. **Data quality**

To be determined once specific projects within Topic Group are scoped.

1. **Annotation / label quality**

To be determined once specific projects within Topic Group are scoped.

1. **Data provenance**

To be determined once specific projects within Topic Group are scoped.

1. **Benchmarking**

To be determined once specific projects within Topic Group are scoped.

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