

Supplementary Table 1. The system categories of Digital Health Interventions

Census, population information, & data warehouse	Emergency response system	Laboratory and diagnostics information system
Civil registration and vital statistics	Environmental monitoring system	Learning and training system
Client applications	Facility management information system	Logistics management information system
Client communication system	Geographic information system	Pharmacy information system
Clinical terminology and classifications	Health finance and insurance information system	Public health and disease surveillance system
Community-based information system	Health management information system	Research information system
Data interchange, interoperability, and accessibility	Human resource information system	Shared health record and health information repositories
Electronic medical record	Identification registries and directories	Telemedicine
	Knowledge management system	

Supplementary Table 2. Classification of recent pediatric ICT according to Gartner Hype cycle

Stage	ICT category	Number
Innovation trigger	Virtual health assistant	0
	Precision health (integrating genomic data, social)	0
	AI healthcare advisors/ML based medical decision ¹⁻³⁹⁾	39
	Automated decision aids (patient decision support systems, CDSS) ⁴⁰⁻⁵⁶⁾	17
	Critical condition surveillance systems (wearables, IoT) ⁵⁷⁻⁷⁶⁾	20
Peak of inflated expectations	Algorithmic medicine	0
	IoT hospital	0
Trough of disillusionment	Assistive robots	0
	Genomic medicine ^{77,78)}	2
	Patients portals and patient health records ⁷⁹⁻⁸⁵⁾	7
	Population health management solutions, electronic health records, health information exchanges ⁸⁶⁻⁹²⁾	7
Slope of enlightenment	Telemedicine (or virtual care) ⁹³⁻¹³¹⁾	39
NOS ¹³²⁻¹³⁵⁾		4
Total		135

ICT, information communication technology; AI, artificial intelligence; ML, machine learning; CDSS, Clinical decision support system; IoT, Internet of Things; NOS, not otherwise specified.

Stages are classified according to 2 review papers from Gartner.

Studies related to electronic health record were categorized into patient portals and population health management solutions based on the focus area in each study.

Studies in which CDSS was developed with AI/ML have been included in both categories.

Supplementary Table 3. Evaluation methods for previous studies

1. Abstract and title: Did they provide a clear description of the study?
Good Structured abstract with full information and clear title.
Fair Abstract with most of the information.
Poor Inadequate abstract.
Very Poor No abstract

 2. introduction
Good Full but concise background to discussion/study containing up-to-date literature review and highlighting gaps in knowledge. Clear statement of aim AND objectives including research questions.
Fair Some background and literature review. Research questions outlined.
Poor Some background but no aim/objectives/questions, OR Aims/objectives but inadequate background
Very Poor No mention of aims/objectives. No background or literature review.

 3. Method
Good Method is appropriate and described clearly (e.g., questionnaires included). Clear details of the data collection and recording.
Fair Method appropriate, description could be better. Data described.
Poor Questionable whether the method is appropriate. Method described inadequately. Little description of data.
Very Poor No mention of method, AND/OR Method inappropriate, AND/OR No detail.

 4. Results: Is there a clear statement of the findings?
Good Findings explicit, easy to understand, and in logical progression. Tables, if present, are explained in text. Results relate directly to aims. Sufficient data are presented to support findings.
Fair Findings mentioned but more explanation could be given. Data presented relate directly to results.
Poor Findings presented haphazardly, not explained, and do not progress logically from results.
Very Poor Findings not mentioned or do not relate to aims.

 5. Discussion: Are the findings of this study transferable (generalizable) to a wider population?
Good Context and setting of the study is described sufficiently to allow comparison with other contexts and settings, plus high score in Question 4 (sampling).
Fair Some context and setting described, but more needed to replicate or compare the study with others, PLUS fair score or higher in Question 4.
Poor Minimal description of context/setting.
Very Poor No description of context/setting.

 6. Implications: How important are these findings to policy and practice?
Good Contributes something new and/or different in terms of understanding/insight or perspective. Suggests ideas for further research. Suggests implications for policy and/or practice.
Fair Two of the above (state what is missing in comments).
Poor Only one of the above.
Very Poor None of the above.
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