TITLE
Feasibility of Biometric Identification Technique for Demographic Surveillance System in an African rural setting.

PRESENTED BY:

Emmanuel Mahama, Dennis Boateng, Samuel Danso, Eliezer Odei-Lartey, Livesy Abokyi, Seeba-Amenga-Etego , AbubakariSulemana, Kwaku Poku Asante, Seth Owusu-Agyei

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BACKGROUND

- One of the main challenge of morbidity surveillance in HDSS centres is the difficulty in linking health facility data with routine community data collected on the HDSS.

- Fingerprint is a biometric technique developed as an alternative to other forms of identification. It is used as part of automated systems to enhance individual identification.

- Feasibility of this technique is being explored within an HDSS to overcome the challenges of linking health facility morbidity data and community based KHDSS data.
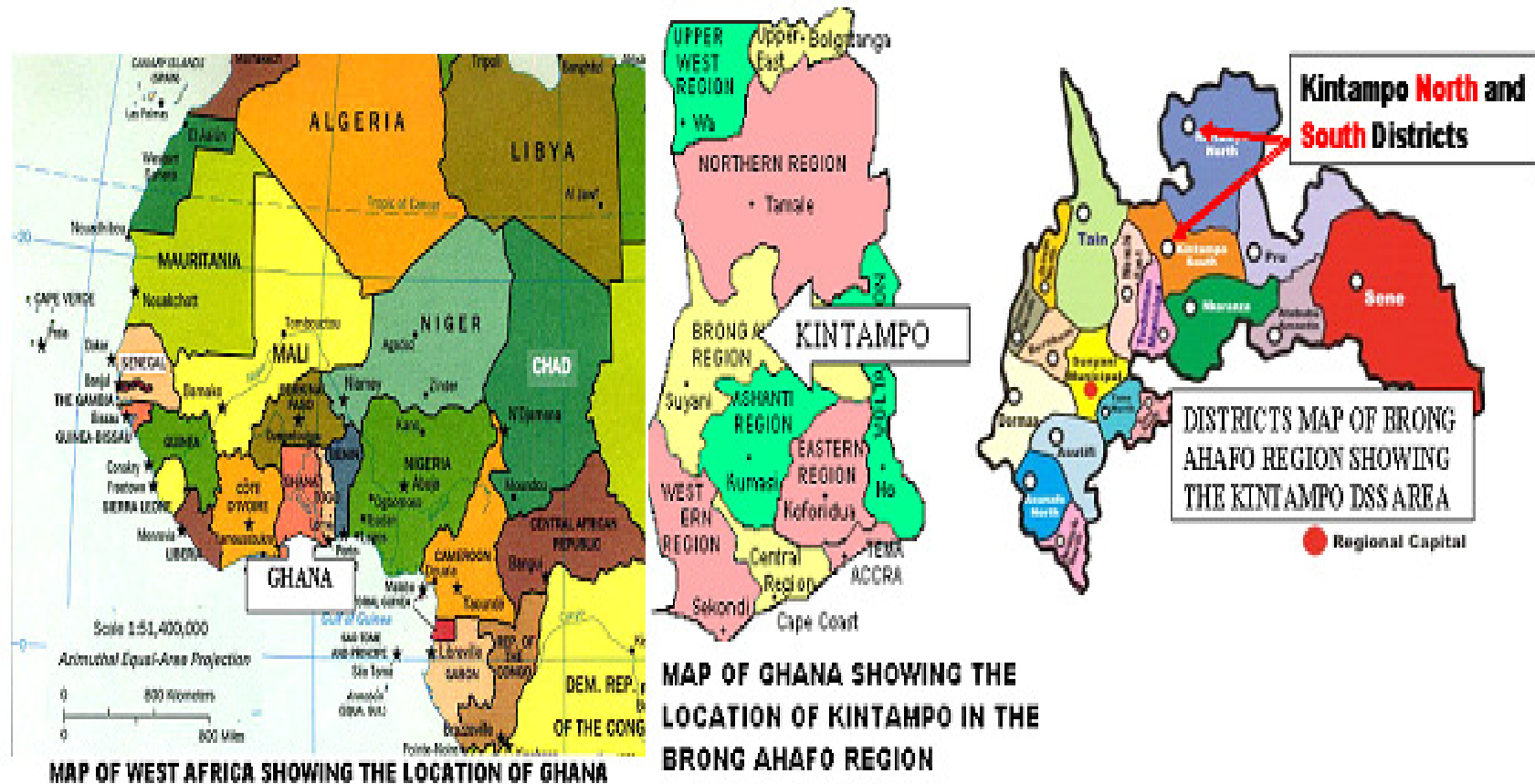
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OBJECTIVE

- To examine the feasibility of using fingerprint as a biometric identification to support other traditional methods of identification systems in managing HDSS morbidity surveillance in rural Ghana

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THE LOCATION OF KINTAMPO DEMOGRAPHIC SURVEILLANCE SYSTEM (KHDSS)

MAP OF WEST AFRICA SHOWING THE LOCATION OF GHANA

MAP OF GHANA SHOWING THE LOCATION OF KINTAMPO IN THE BRONG AHAFO REGION

Kintampo North and South Districts

DISTRICTS MAP OF BRONG AHAFO REGION SHOWING THE KINTAMPO DSS AREA

● Regional Capital

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METHOD

- ❑ The KHDSS electronic database for a selected area within the HDSS was upgraded to include fingerprints and photographs of population members

- ❑ Details of the HDSS members of the area present during the exercise was installed at a health facility to identify those patients

- ❑ Patients who visited the health facility were identified prioritizing on fingerprints, followed by ID cards and then patient's knowledge of personal details; including name, locality etc.
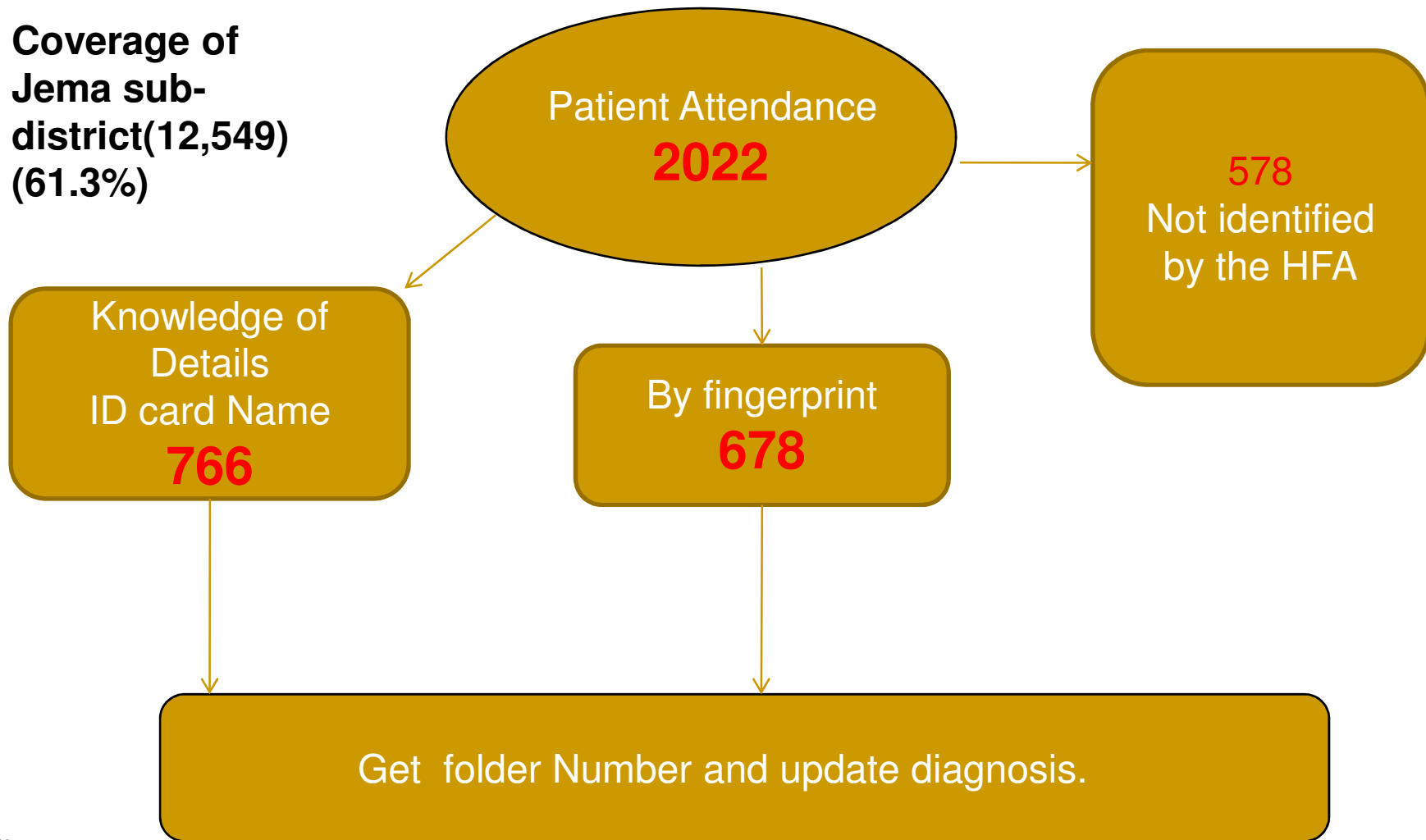
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FINDINGS

- Coverage of Jema Sub-district enrollment was 12,549 (61.3%) out of 20,474 registered individuals.

- A total of 2,002 individuals visited the health facility between October 2010 and December 2010.

- Seventy –two percent (1444/2002) of patients who visited the facility were identified by at least one identification method.

- Forty-seven percent (678/1444) were effectively identified by fingerprints only while 53% percent (766/1444) were identified by the other identification methods only.
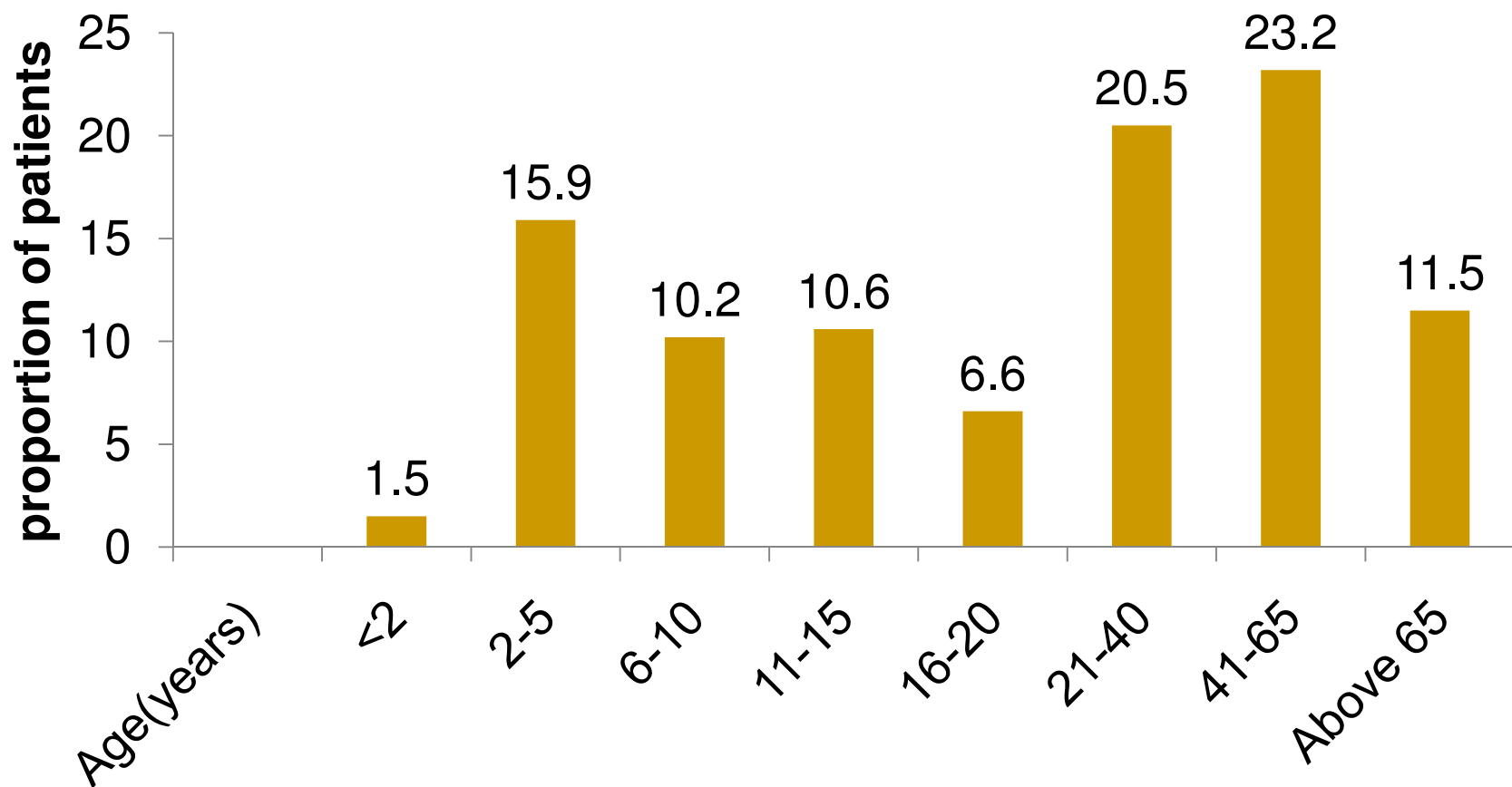
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Health facility Application Flow Chart

Coverage of Jema sub-district(12,549) (61.3%)

Patient Attendance
2022

578
Not identified by the HFA

Knowledge of Details
ID card Name
766

By fingerprint
678

Get folder Number and update diagnosis.

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Fingerprints of patients identified by age

CONCLUSION

- Fingerprint technology combined with other traditional methods are feasible in identifying KHDSS population at the health facility.

- The fingerprint software application has been upgraded to reduce the patient waiting time at the various health facilities.

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Thank You!

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