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(54) **Titre : Community health unit database networking system.**

(57) **Abrégé :**

The Community Health Units Database Networking System (CHUDATS) is a computer-implemented invention for managing processes, procedures, actions, and outcomes of health facilities along with all patient care considerations within and beyond the system. Its operations cut across limitations on setbacks at attaining universal health coverage within vulnerable communities, and provide direct global access and support to the immediate and projected needs of community health units and vulnerable inpatients. Considerably, the system sets in innovative pathways for unifying healthcare systems, health statistics gathering and qualitative health personnel management schemes. Through its facilitated health bills settlement opportunity and introduced healthcare insurance currency, CHUDATS presents a new healthcare digital mechanism that unites the globe and general public directly towards supporting one another's vulnerabilities and community needs. Constructively, the scalable system scopes at sustainably enhancing community care, patient care, and health facilities' management against the backdrop of modernisation and technological advancements.

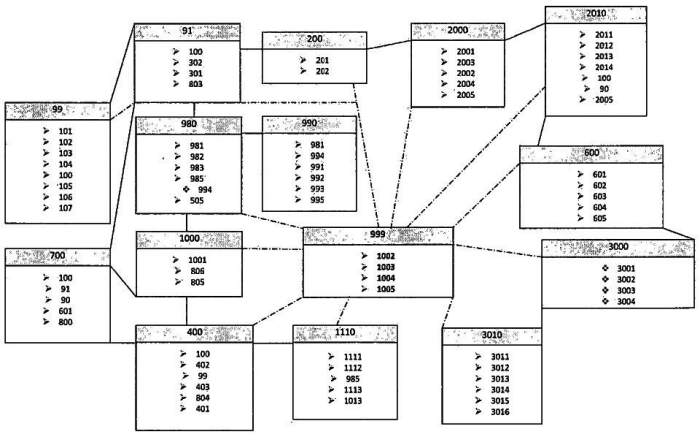


Fig. 1

DESCRIPTION

The present invention is in the field of community health digitalisation and healthcare system management networking that involves a new computer-implemented healthcare insurance currency, and unique lifetime healthcare data access cards.

The invention was initially conceived in the year 2011, presented at the 6th Session of the Open Working Group (OWG-2013) for the SDGs and published under the thematic focus on **Health and Population Dynamics** (https://sustainabledevelopment.un.org/getWSDoc.php?id=2088). It aims at fostering healthcare delivery equality and inclusive e-governance implicit measures across healthcare systems at local, regional and global levels.

The system addresses issues of healthcare service delivery inequalities, the need of a systemised and uniform health data statistics collection opportunity, qualitative and dynamic health personnel management with auto-connected healthcare service delivery and payment processes which are accessible and controlled by everyone. This is made possible through a continuum access to individual healthcare data controlled and managed by concerned patients.

Through computer-implemented processes, the unique personal health data access cards provide the gateway for collecting and processing all patient care and concerned health units' institutional management information. In a systemic manner, such data is networked and interconnected with the entirety of the system thereby granting equal access for everyone to obtain and use the new healthcare currency in both digital and liquid note formats.

Still through computer implemented processes, the system offers unique global patient identification codes that permit every user to be able to, by using new healthcare insurance currency, purchase and donate credits for payments against one another's health bills, support healthcare facilities in need, and save in individual or institutional accounts for future usages. The access cards serve as unique lifetime personal and institutional healthcare data info wallets.

Figure 1 shows the original design and conception of the Community Health Unit Database Networking System projecting the health unit data collection, management and networking processes.

Figure 2 shows the official logo for the system.

Figure 3 shows the logo for the healthcare insurance currency.

Figure 4 shows the front and back design of the digital format of the healthcare insurance currency named **Heal Coins** and abbreviated as HC.

Figure 5 shows the design and liquid format of the healthcare insurance currency named **Heal Notes** and abbreviated as HN.

Figure 6 shows the design and format of the unique lifetime healthcare data access cards and its card reader device.

The community health unit database networking system having an official logo (30), while using the healthcare insurance currency and healthcare data access cards, engages hospitals and patient management accordingly:

At the level of the hospital or health facility, the computer-implemented processes hosts a database structure and interface that apportions to, or reads the already apportioned, unique global identification health unit code(90) and patient code (100), collects patient focus

preparatory data concerning appointment (99) bookings (type–date–method–patient ID–disease category–space availability–appointment status (102–109), affiliations (200) primary and secondary affiliations (201-202), consultation ID (302), medical attendance records (400), patient treatment details (403), treatment history (401), dates (402) and diagnosis status (301), and other patient care recommendations (505) that serve in studying the patient medical condition and permits further diagnosis and treatments to be added into the patient medical reports (700) according to the patient's inpatient or outpatient status (91). It also hosts a management module that considers the health unit's personnel or employee (3010) management plans for the health facility including staff identification (3011) function (3012) employment history (3013), personnel decisions (3014), pay (3015), evaluation (3016). The management module (3000) also considers management roles (3001), functional appraisal (3002) of the health facility in general, and inventory (3003). Its doctor's management module introduces same employee management plans and options, identities (981), categories (982), and classifies (983) its physicians (980), and offers data trailing for their current and past clinical research (991) and clinical trials (992) undertaken within the health facility by the concerned doctor and/or with collaborators (993). As well, the physicians are permitted to input classified records (990) and restricted EMRs (994) and further works recommendations (995). The interface as well introduces internal pharmacy (1110) and laboratory management modules with medicine (1111) and stock (1112) that align drugs provisions (1113) with their treatment prescriptions (985) for inpatients and outpatients and a further gateway or relay (1013) to the inventory of external pharmacies and other health service providers that are in possession of medications missing in the consulting health facility. Scoping for a dynamic totality in the management of the involved health facilities, the interface also introduces an inventory module (3003) that considers the entire stock management process of the health facilities.

In order to ascertain the computer-implemented networking possibilities across the system for accessing the healthcare information cards and processing the healthcare insurance currency, the interface provides a connectivity hub that networks the interoperability functioning among health facilities. It also engages in statistics monitoring concerns and creates an automated diseases and health issues categories (105) processing mechanism for all health diagnosis within user health facilities. This serves in gathering and processing statistics in a territorially and/or in a health jurisdictionally segmented manner.

With respect to the conception and functionality of the healthcare insurance currency having an official sign or logo (40), it is issued and used in 2 principal ways. The first way reflected by figure 4 is in digital coins which exist in 6 denominational values of 1HC, 5HC, 10HC, 20HC, 50HC, 100HC and 500HC respectively. The 1HC to 100HC exist in circular forms as shown in figure 4 where the front face (10) carries the name in full HEAL COIN (11) and the value number (12) attached with HC. The back face (13) carries the inscription: Heal The Sick (14) and in a circular manner below: Community Health Unit Database Networking System (15), and at the center (16) is the number value of the coin below the logo. 500HC is has a similar back face to all the coins but carries the head image of the inventor.

The second way reflected by figure 5 is in liquid notes which exist in 7 denominational values of 1HN, 5HN, 10HN, 20HN, 50HN, 100HN, 500HN and 1000HN respectively. All notes exist in rectangular forms that project inscriptions and imagery characteristics on different positions on the notes, and also particular hopeful messages distributed across the note in seven different global languages. The front face of the note carries the value number (22) followed by HN, the

note's message in Hindi (23), the system's name in full (20), the note's message in French (21), the value of the note (24), the signature (25) of the originator/inventor (26), the serial number of the note (27), the note's message in English (28), the value of the note in full (29), the title in full (31), and exceptionally, for the 1000HN only, the image of the inventor (45) and the head and horns of a deer (46). The back face of the note projects the value of the note (32), the message of the note in Russian (33), the abbreviation of the system CHUDATS (34), the name of its mobile application Heal The Sick (35), the message of the note in Chinese (36), the value of the note in full (37), the title (38), the message of the note in Arabic (39), the value of the note (41), the title (42), the message of the note in Spanish (43), and the serial number of the note (44).

With respect to the conception and functionality of the healthcare data access cards presented in figure 6, a CHUDATS dedicated card reader that applies the Radio Frequency Identification (Rfid) technology is used for obtaining and updating the stored data on the cards. The front face of the card (50) projects the abbreviation CHUDATS (51), the full system name (52), the logo (53), the face identity of the card owner (54), the name details (55), the contact details (56), other personal characteristics (57), the QR code (58), the globally unique patient ID number/code (59). The back face of the card (60), projects the embedded memory chip (61), the card's serial number (62), the concerned patient's special code or pin number (63), and the contact address of the system (64). Correspondingly, the card reader (70) is a customised device dedicated to communicating the data between the card and the computer-implemented processes. The card reader has the inscription of the system (71), the entry port of the card (72), and a USB connector plug (73).

Through computer-implemented processes that also include the use of a dedicated mobile application call "Heal The Sick", patients, doctors, territorial health administrators and other system users are able to interact in several ways. All system users are able to obtain both digital heal coins and liquid heal notes which they can use to make payments across the system and beyond through dedicated payment gateways. Every system user is granted the opportunity to have a Heal Cash Wallet (803) in which heal coins and converted heal notes can be saved and further used. The heal cash serves in supporting projected needs of user health facilities, donations in settling medical bills for consenting vulnerable inpatients, and donations for urgent and essential community assistance projects that have been duly published on the system's official web portal CHUDATS.NET.

Using the mobile application and web portal of the system, patients with established identities can make appointments with profiled medical doctors published and attached to the user health facilities or those added by the system's super admin. The patient with the system's approved ID is granted the priority within the system to browse physician profiles and chose the doctors available or those on call within the health structures they aspire to consult. Alternatively, other users of the system can engage as mobile patients "M-patients" who can consult with mobile doctors or M-doctors. The computer-implemented mobile services as well provides every user with an automatic heal cash wallet (803) that permit the acquisition of heal coins (806) into the wallet records (805) through other payment sources, and reserved for settling of healthcare bills (804) only within the system. It provides universally identified patients with login opportunities to view and comment on their medical history (401)

Specifically, the computer-implemented processes provide the user with an account (2000), account type (2003) and account ID (2001) in order to be able to see the profile of user health

facilities and to access and donate or make payments (2002) to the purpose (2004) of projects of requesting health facilities, to see inpatients that are in need of assistance to settle their health bills, and to directly donate to patients' heal cash wallets. Banking (2010) transactions that carry bank names (2011), depositor names (2012), transaction ID (2013) and purpose (2014) for direct transfers or the use of credit cards are also permitted financial processes within the system. In addition, mobile computing processes also handle payments for m-patient transactions (1002), inpatient transactions (1003), physician transactions (1004) and other user transactions (1005).

Objectively, the healthcare insurance currency also addressed as the Currency of Humanity represented by the Heal Coins and Heal Notes is fully elaborated on official web accounts or domain names which are: healcoins.net, healcash.net and healnotes.com. The web domains project the conceptive images and usages of the currency and its value or conversion rates vis-à-vis other currencies across the globe.

CLAIMS

I. A scalable healthcare facility and patient care management networking system, comprising of but not limited to:

- A computer-implemented healthcare data storage card that saves, updates, and transmits the management information of health facilities and patients;

- A computer-implemented healthcare insurance currency that exist in digital and liquid formats.

II. A healthcare data storage card of claim I, further characterised of:

- Unique global patient healthcare identification codes recognised at all levels within the system.

- Computer-implemented processes that manage health personnel, projects, disease statistics, pharmacy, laboratory, inventory, patient appointments and consultations, medical profiles, inpatient treatment processes and procedures, physicians clinical research and clinical trials, patient and employee history and insurance mechanisms, health bills payments;

- Computer-implemented online processes that network health facilities and patient care information, provides access to healthcare statistics, has a donation platform for community health related projects, and a subscriber portal for aspiring health facilities, physicians and other medical specialists, and permits online exchanges within the system;

- Computer-implemented mobile processes that read patient unique identification codes, provides subjective card user views to the medical records of identified users and institutions within the system.

III. A computer-implemented healthcare insurance currency of claim I, further characterised of:

- Digital coins named "Heal Coins" and liquid notes named "Heal Notes" of different denominational values that serve in settling medical bills and making donations within the system and across other approved users of the system's third-party applications;

- Computer-implemented wallets name "Heal Cash Wallet" that keep or save and process the usage of the healthcare insurance currencies for personal and other institutional usages;

- Computer-implemented mobile application name "Heal The Sick" that provides the system users with digital wallets for saving and using Heal Coins, conducting search practices and making payments or donations within the system;

the web domain names healcoins.net, healcash.net and healnotes.com that serve for information and education on the usage and the projection of the value and physical characteristics of the healthcare insurance currency.

DRAWING PLATES

FIG.1

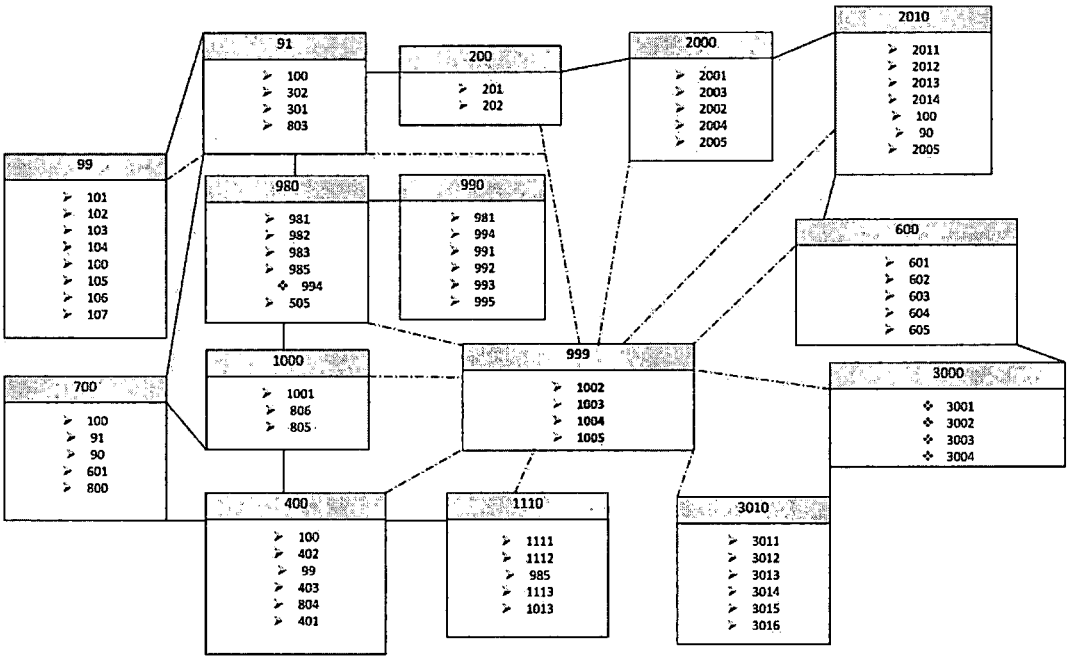


FIG.2

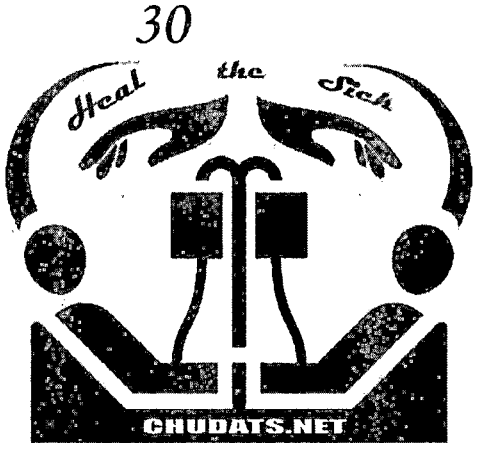


FIG.3

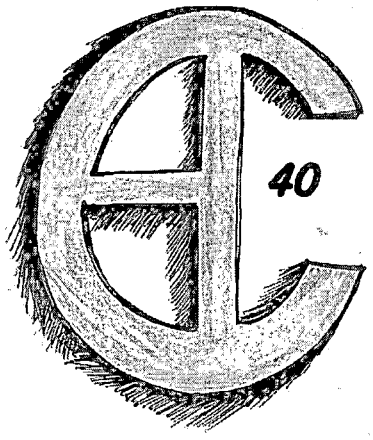


FIG.4

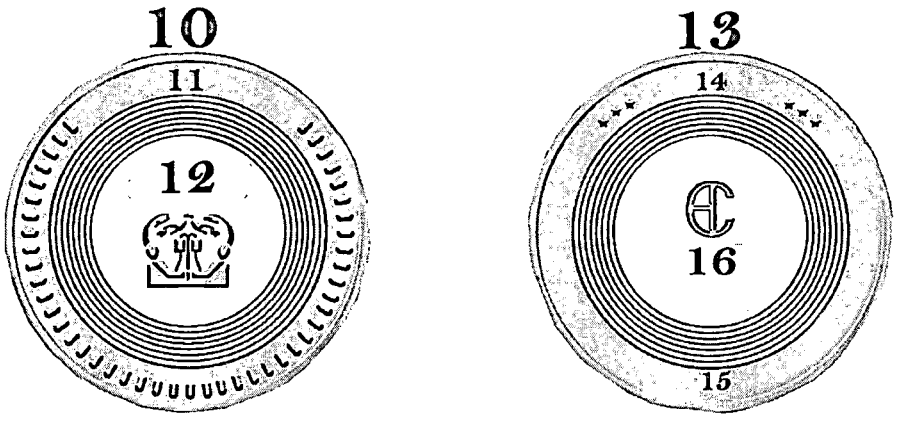


FIG.5

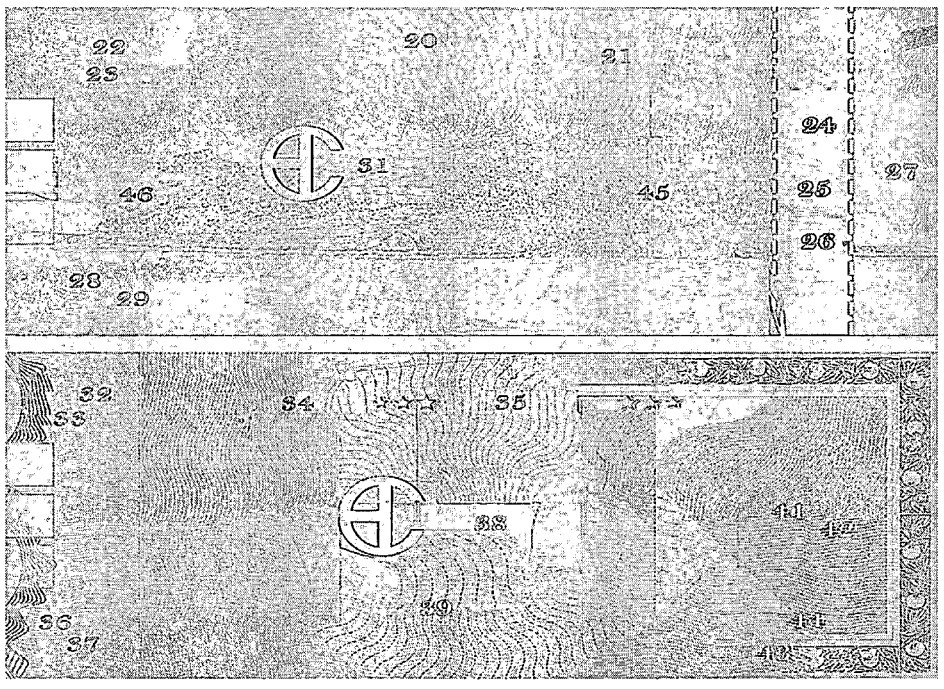
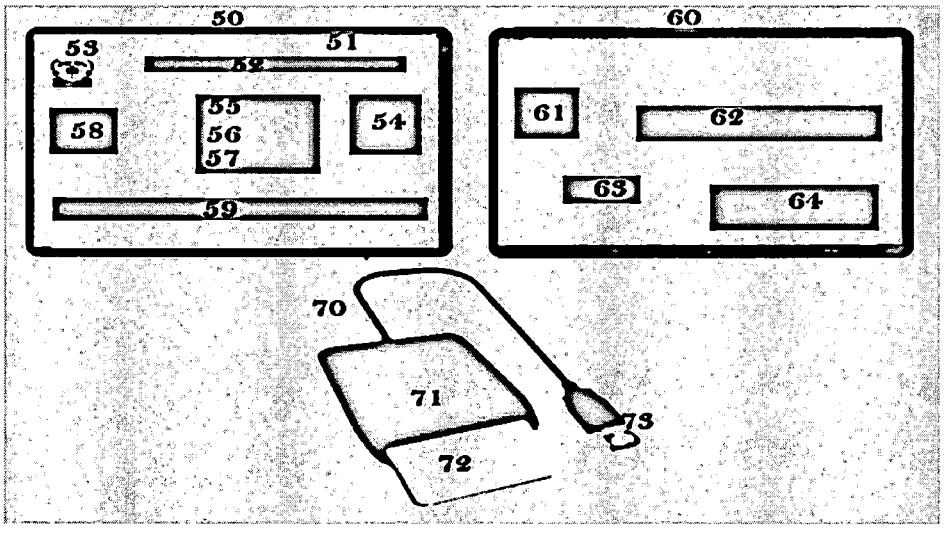


FIG.6



DESCRIPTIVE ABSTRACT

The Community Health Units Database Networking System (CHUDATS) is a computer-implemented invention for managing processes, procedures, actions, and outcomes of health facilities along with all patient care considerations within and beyond the system. Its operations cut across limitations on setbacks at attaining universal health coverage within vulnerable communities, and provide direct global access and support to the immediate and projected needs of community health units and vulnerable inpatients. Considerably, the system sets in innovative pathways for unifying healthcare systems, health statistics gathering and qualitative health personnel management schemes. Through its facilitated health bills settlement opportunity and introduced healthcare insurance currency, CHUDATS presents a new healthcare digital mechanism that unites the globe and general public directly towards supporting one another's vulnerabilities and community needs. Constructively, the scalable system scopes at sustainably enhancing community care, patient care, and health facilities' management against the backdrop of modernisation and technological advancements.

DRAWING FOR THE ABSTRACT