

CLAIMS

What is claimed is:

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1. A computer-implemented method for providing personalized health care information and treatment recommendations, comprising:

~~at a hardware processor, collecting~~ at an output device, outputting a prompt offering a choice between a first option to provide medical information concerning a patient;

~~at a storage device, storing the collected~~ by authorizing access by an automated system to a patient record and a second option to provide medical information concerning the patient by having a human user answer medical questions;

at an input device, receiving input indicating one of ~~the hardware processor,~~ retrieving information describing a plurality of treatment options;

at responsive to ~~the hardware processor, filtering input indicating the treatment~~ options based on the collected medical first option;
obtaining identifying information and authorization for accessing the
patient record;

using the obtained identifying information, to generate a list and
authorization to allow and cause an automated system to access the
patient record; and
receiving medical information concerning the patient, via the automated
system, from the patient record;
responsive to the input indicating the second option:
outputting medical questions on the output device; and
receiving medical information concerning the patient in the form of
answers to the medical questions, wherein such answers are
provided by a human user via the input device;
at a first electronic data store, storing a first subset of the received medical
information as identifying medical information, wherein the identifying
medical information identifies the patient;
at a second electronic data store, storing a second subset of the received medical
information as de-identified medical information, wherein the de-
identified medical information does not identify the patient;
at the hardware processor, based on the identifying medical information and the
de-identified medical information, automatically selecting a personalized
set of recommended treatment options for the patient from a plurality of
available treatment options for the patient; and

at ~~an~~the output device, displaying the personalized set of recommended treatment options.

2. The method of claim 1, wherein:

~~retrieving information describing automatically selecting a personalized set of~~
recommended treatment options for the patient from the plurality of
treatment options ~~and filtering the treatment options are~~is performed at a
server; and

displaying the personalized set of recommended treatment options comprises
transmitting the personalized set of recommended treatment options to a
client device for display thereon.

3. The method of claim 1, wherein ~~collecting medical information concerning a~~
~~patient comprises at least one selected from the group consisting of:~~
~~accessing records containing the patient's medical information; and~~
~~receiving user input responding to automatically selecting a questionnaire,~~
~~wherein the user input comprises the medical information.~~

4. ~~The method of claim 1, wherein filtering the~~personalized set of recommended
treatment options for the patient comprises determining which treatment options are
optimal for the patient given the collected medical information.

~~54.~~ The method of claim 1, wherein filtering the treatment options comprises applying a personalization engine to determine which treatment options are optimal ~~given the collected~~ for the patient given the identifying medical information and the de-identified medical information.

~~65.~~ A non-transitory computer-readable medium for providing personalized health care information and treatment recommendations, comprising instructions stored thereon, that when performed by a hardware processor, perform the steps of:

~~causing an output device to output a prompt offering a choice between a first option to provide~~ collecting medical information concerning a patient;

~~causing a storage device to store the collected~~ by authorizing access by an

automated system to a patient record and a second option to provide

medical information concerning the patient by having a human user

answer medical questions;

~~retrieving~~ causing an input device to receive input indicating one of the options;

responsive to the input indicating the first option:

obtaining identifying information ~~describing a plurality of treatment~~

~~options~~ and authorization for accessing the patient record;

~~filtering the~~ using the obtained identifying information and authorization

to allow and cause an automated system to access the patient

record; and

receiving medical information concerning the patient, via the automated
system, from the patient record;
responsive to the input indicating the second option:
causing the output device to output medical questions; and
causing the input device to receive medical information concerning the
patient in the form of answers to the medical questions provided by
a human user via the input device;
causing a first electronic data store to store a first subset of the received medical
information as identifying medical information, wherein the identifying
medical information identifies the patient;
causing a second electronic data store to store a second subset of the received
medical information as de-identified medical information, wherein the de-
identified medical information does not identify the patient;
based on the identifying medical information and the de-identified medical
information, automatically selecting a personalized set of recommended
treatment options ~~based on~~for the ~~collected medical information, to~~
~~generate patient from~~ a ~~list~~plurality of ~~personalized available~~ treatment
options ~~for the patient;~~ and
causing ~~an~~the output device to display the personalized set of recommended
treatment options.

76. The non-transitory computer-readable medium of claim 65, wherein:

~~retrieving information describing~~ automatically selecting a personalized set of recommended treatment options for the patient from the plurality of treatment options comprises causing a server to ~~retrieve~~ automatically select the ~~information describing the plurality~~ personalized set of recommended treatment options;

~~filtering the treatment options comprises causing a server to filter the treatment options; and~~

and

the output device is at a client device.

87. The non-transitory computer-readable medium of claim 65, wherein ~~collecting medical information concerning~~ automatically selecting a patient comprises at least one selected from the group consisting personalized set of:

~~accessing records containing the patient's medical information; and receiving user input responding to a questionnaire, wherein the user input comprises the medical information.~~

~~9.~~ The non-transitory computer-readable medium of claim ~~6~~, wherein ~~filtering the recommended~~ treatment options for the patient comprises determining which treatment options are optimal for the patient given the collected medical information.

108. The non-transitory computer-readable medium of claim 65, wherein filtering the treatment options comprises applying a personalization engine to

determine which treatment options are optimal ~~given the collected~~ for the patient given the identifying medical information and the de-identified medical information.

~~119.~~ A system for providing personalized health care information and treatment recommendations, comprising:

~~a hardware processor~~ an output device, configured to:

~~collect~~ output a prompt offering a choice between a first option to provide
medical information concerning a patient;

~~retrieve information describing a plurality of treatment options; and~~

~~filter the treatment options based on the collected~~ by authorizing access by an

automated system to a patient record and a second option to provide

medical information, ~~to generate a list of personalized treatment options~~

~~for concerning the patient; by having a human user answer medical~~

questions;

~~a storage device~~ an input device, configured to receive input indicating one of the

options;

a hardware processor, communicatively coupled to the output device and to the

input device, configured to:

responsive to the input indicating the first option:

obtain identifying information and authorization for accessing the

patient record;

use the obtained identifying information and authorization to allow
and cause an automated system to access the patient record;
and
receive medical information concerning the patient, via the
automated system, from the patient record; and
responsive to the input indicating the second option:
cause the output device to output medical questions; and
cause the input device to receive medical information concerning
the patient in the form of answers to the medical questions
provided by a human user via the input device;
a first electronic data store, communicatively coupled to the hardware processor,
configured to store a first subset of the ~~collected~~ received medical
information; ~~and~~ as identifying medical information, wherein the
identifying medical information identifies the patient;
~~at an output device,~~ a second electronic data store, communicatively coupled to
the hardware processor, configured to store a second subset of the
received medical information as de-identified medical information,
wherein the de-identified medical information does not identify the
patient; and
an output device, communicatively coupled to the hardware processor;
wherein:

the hardware processor is further configured to automatically select a
personalized set of recommended treatment options for the patient from a
plurality of available treatment options based on the identifying medical
information and the de-identified medical information; and
the output device is configured to display the personalized set of recommended
treatment options.

~~1210.~~ The system of claim ~~119~~, wherein:

the hardware processor is at a server; and

the output device is at a client device.

~~1311.~~ The system of claim ~~11~~, ~~further comprising:~~

~~a user input device, communicatively coupled to the hardware processor,~~

~~configured to receive user input responding to a questionnaire⁹, wherein~~

~~the user input comprises the medical information;~~

~~wherein collecting medical information concerning a patient comprises receiving~~
~~the user input responding to the questionnaire.~~

~~14.~~ The system automatically selecting a personalized set of claim ~~11~~, wherein
~~collecting medical information concerning a patient comprises accessing records~~
~~containing the patient's medical information.~~

~~15. The system of claim 11, wherein filtering the recommended~~ treatment options ~~for the patient~~ comprises determining which treatment options are optimal ~~for the patient~~ given the collected medical information.

~~16~~12. The system ~~of claim 9, wherein automatically selecting a personalized set~~ of ~~claim 11, wherein filtering the recommended~~ treatment options ~~for the patient~~ comprises applying a personalization engine to determine which treatment options are optimal ~~for the patient~~ given the collected medical information.