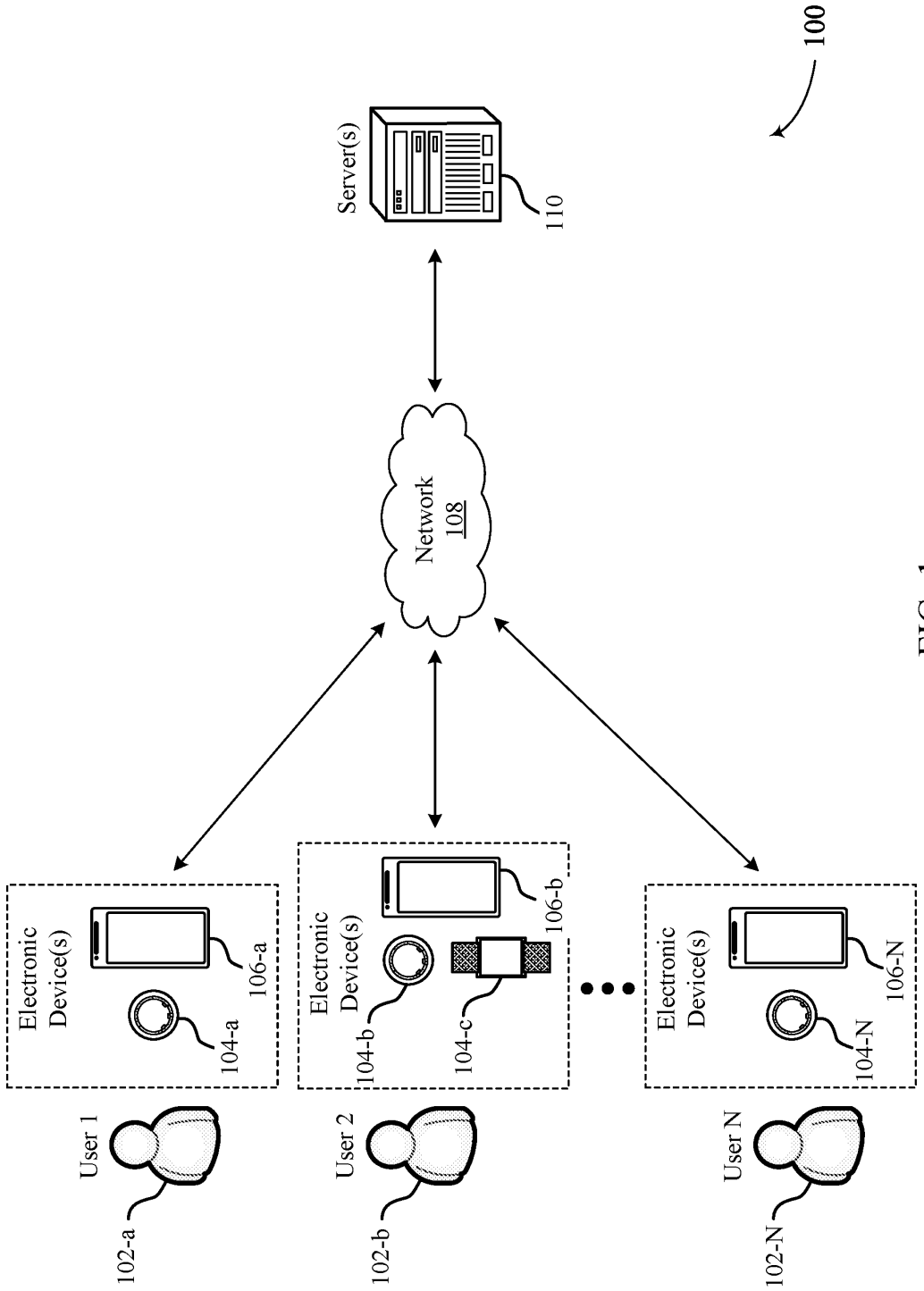

100
Server(s)
110
Network
108
Electronic
Device(s)
106-a
104-a
User 1
102-a
Electronic
Device(s)
106-b
104-b
104-c
User 2
102-b
Electronic
Device(s)
106-N
104-N
User N
102-N

FIG. 1

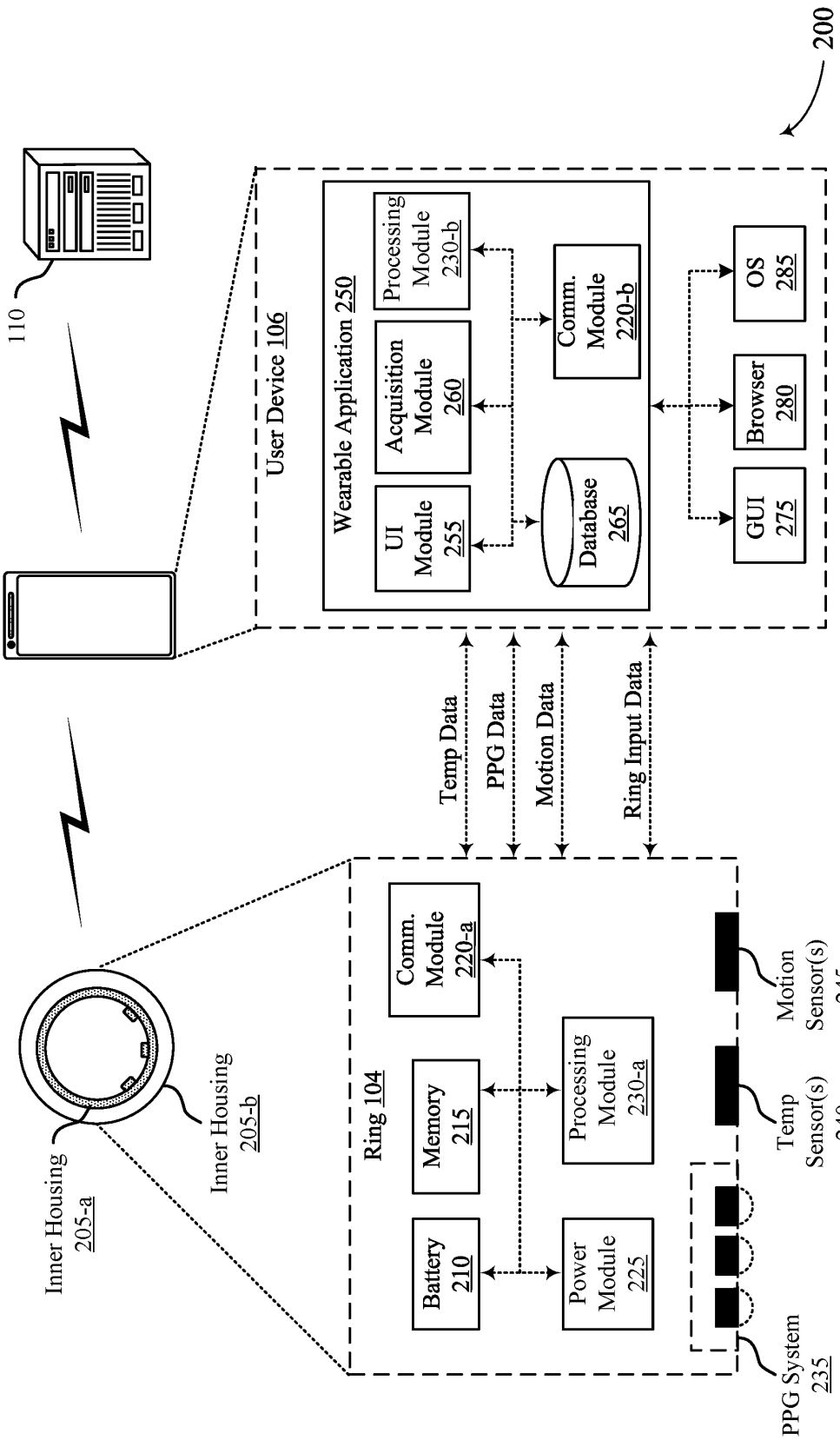

200
110
User Device 106
Wearable Application 250
UI Module 255
Acquisition Module 260
Processing Module 230-b
Database 265
Comm. Module 220-b
GUI 275
Browser 280
OS 285
Temp Data
PPG Data
Motion Data
Ring Input Data
Ring 104
Comm. Module 220-a
Memory 215
Processing Module 230-a
Battery 210
Power Module 225
Inner Housing 205-a
Inner Housing 205-b
Motion Sensor(s) 245
Temp Sensor(s) 240
PPG System 235

FIG. 2

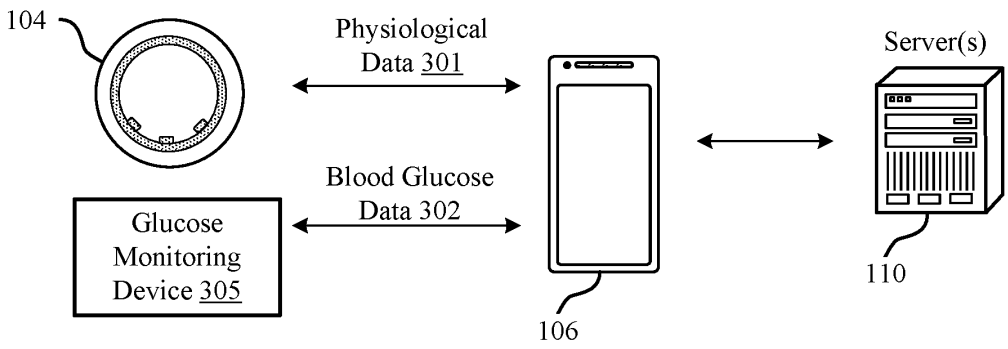

104
Physiological Data 301
Blood Glucose Data 302
Glucose Monitoring Device 305
106
Server(s)
110
300

FIG. 3

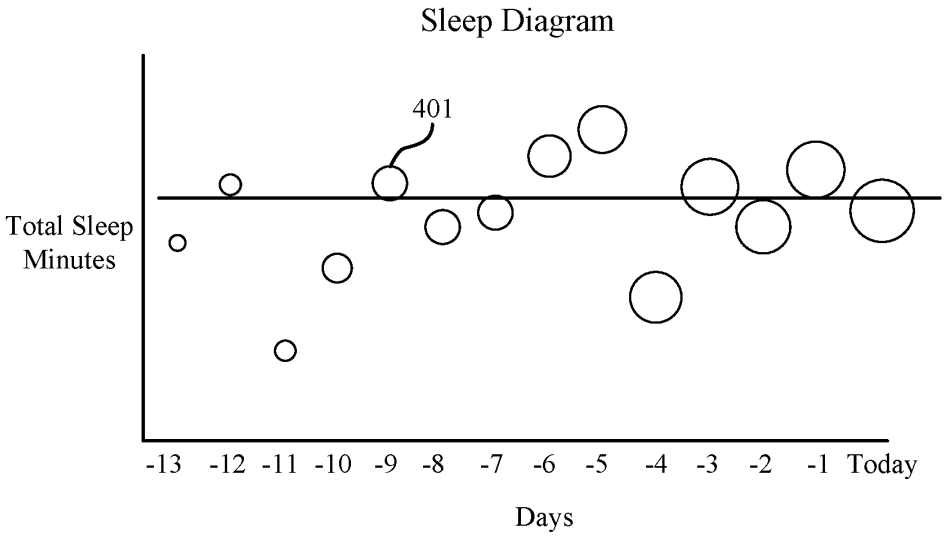

Sleep Diagram
401
Total Sleep Minutes
-13 -12 -11 -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 Today
Days
400

FIG. 4

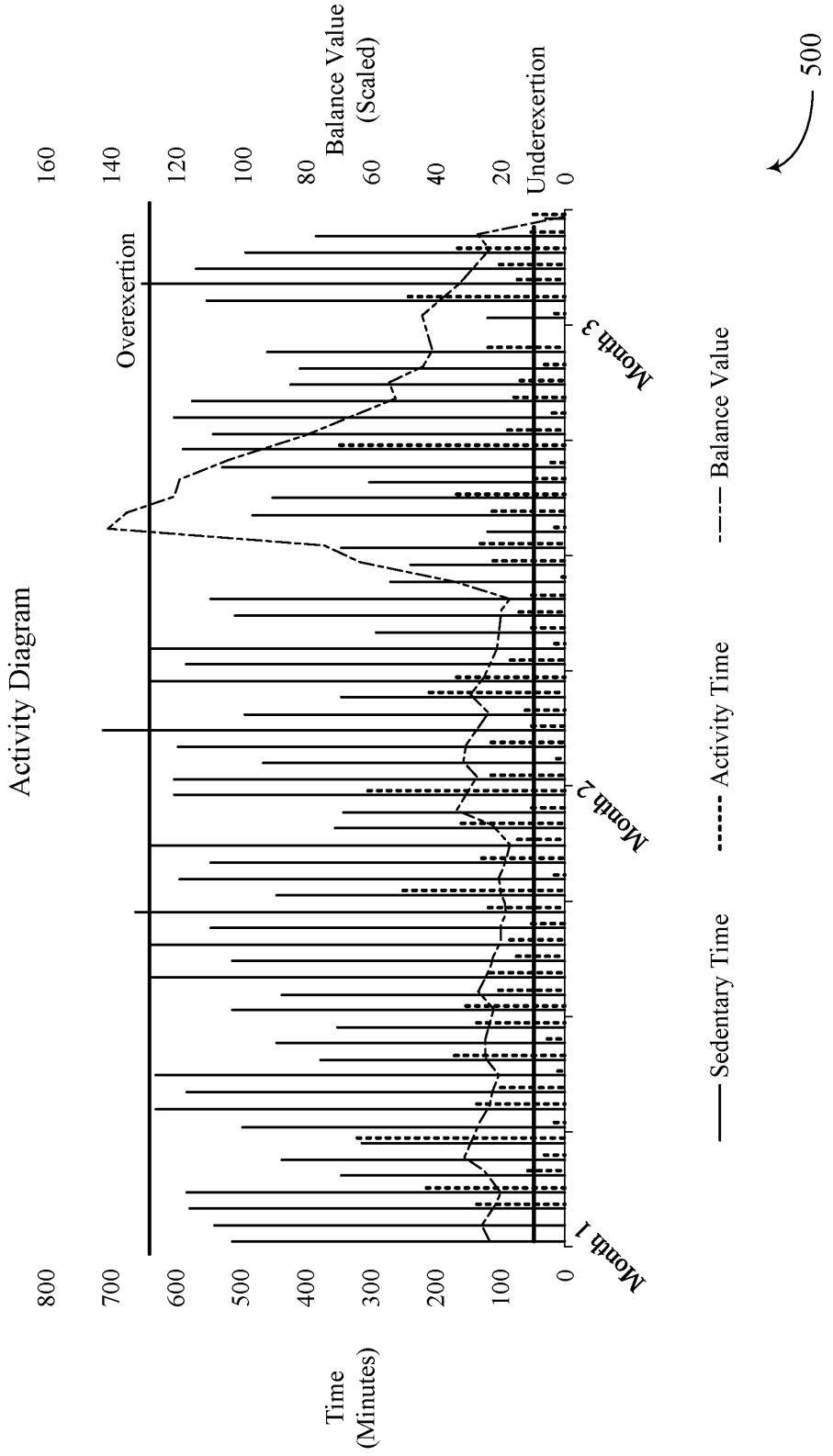

Activity Diagram
Overexertion
Underexertion
Balance Value (Scaled)
Time (Minutes)
Month 1
Month 2
Month 3
Sedentary Time
Activity Time
Balance Value
500

FIG. 5

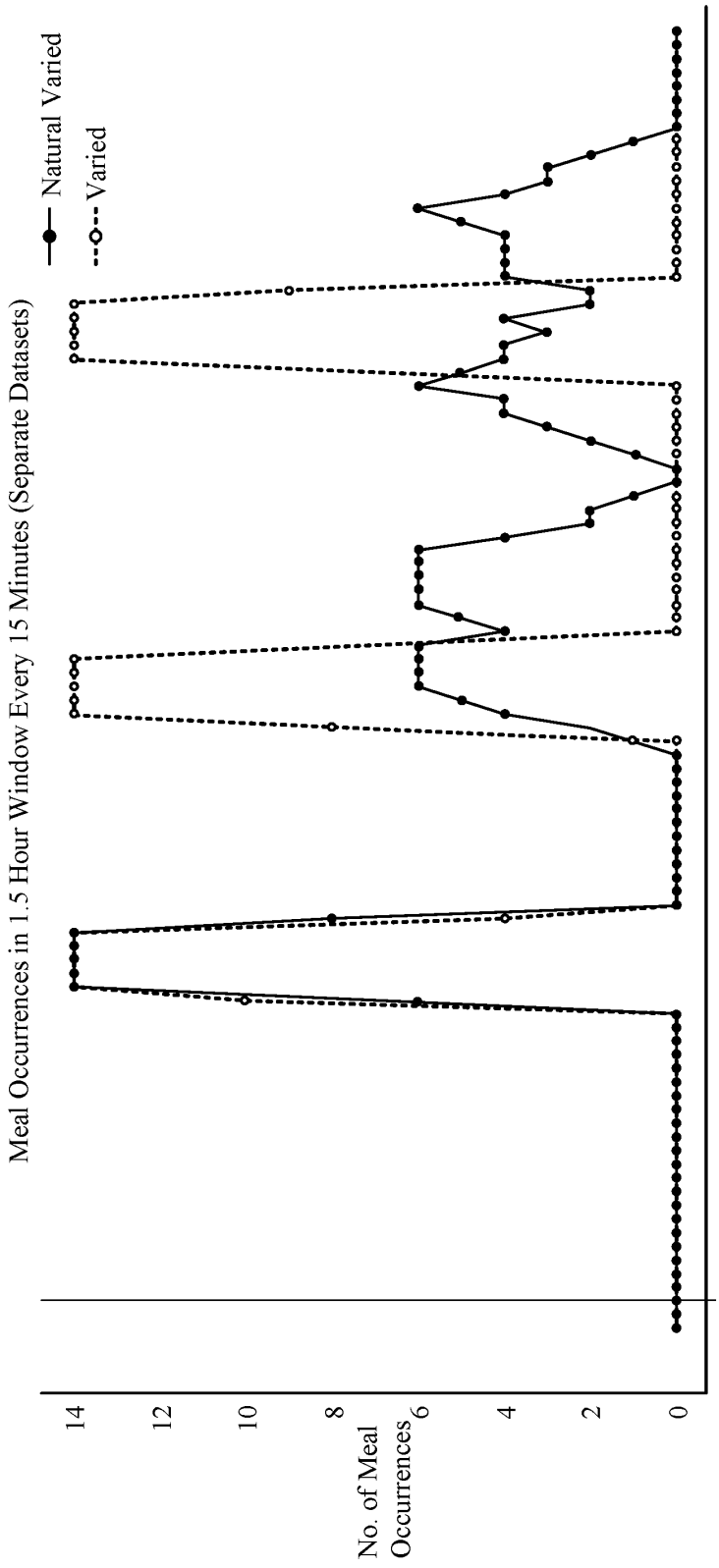

Natural Varied
Varied
Meal Occurrences in 1.5 Hour Window Every 15 Minutes (Separate Datasets)
No. of Meal Occurrences
0
2
4
6
8
10
12
14
Time (Windows Start-End Time)
600

FIG. 6

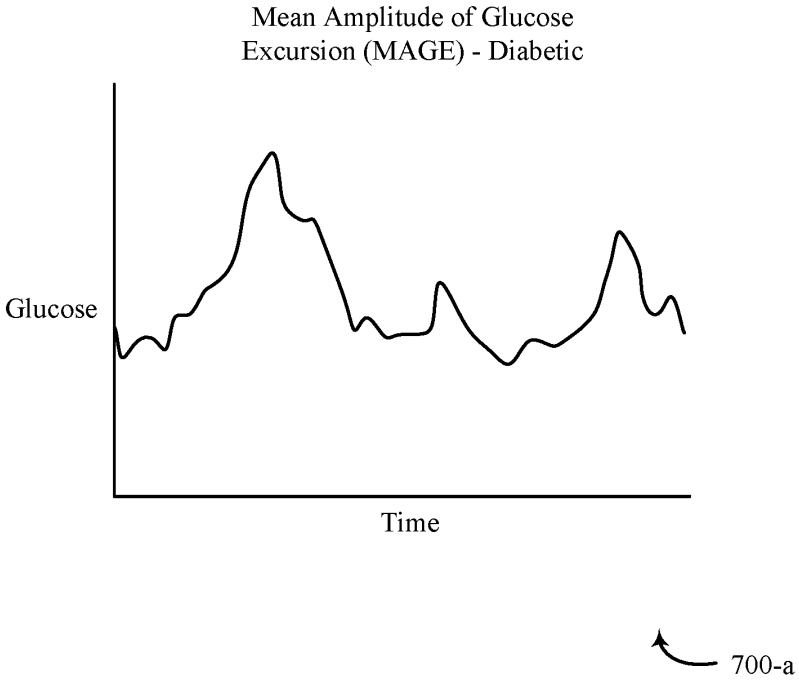

Mean Amplitude of Glucose
Excursion (MAGE) - Diabetic
Glucose
Time
700-a
Mean Amplitude of Glucose
Excursion (MAGE) – Non-Diabetic
Glucose
Time
700-b

FIG. 7

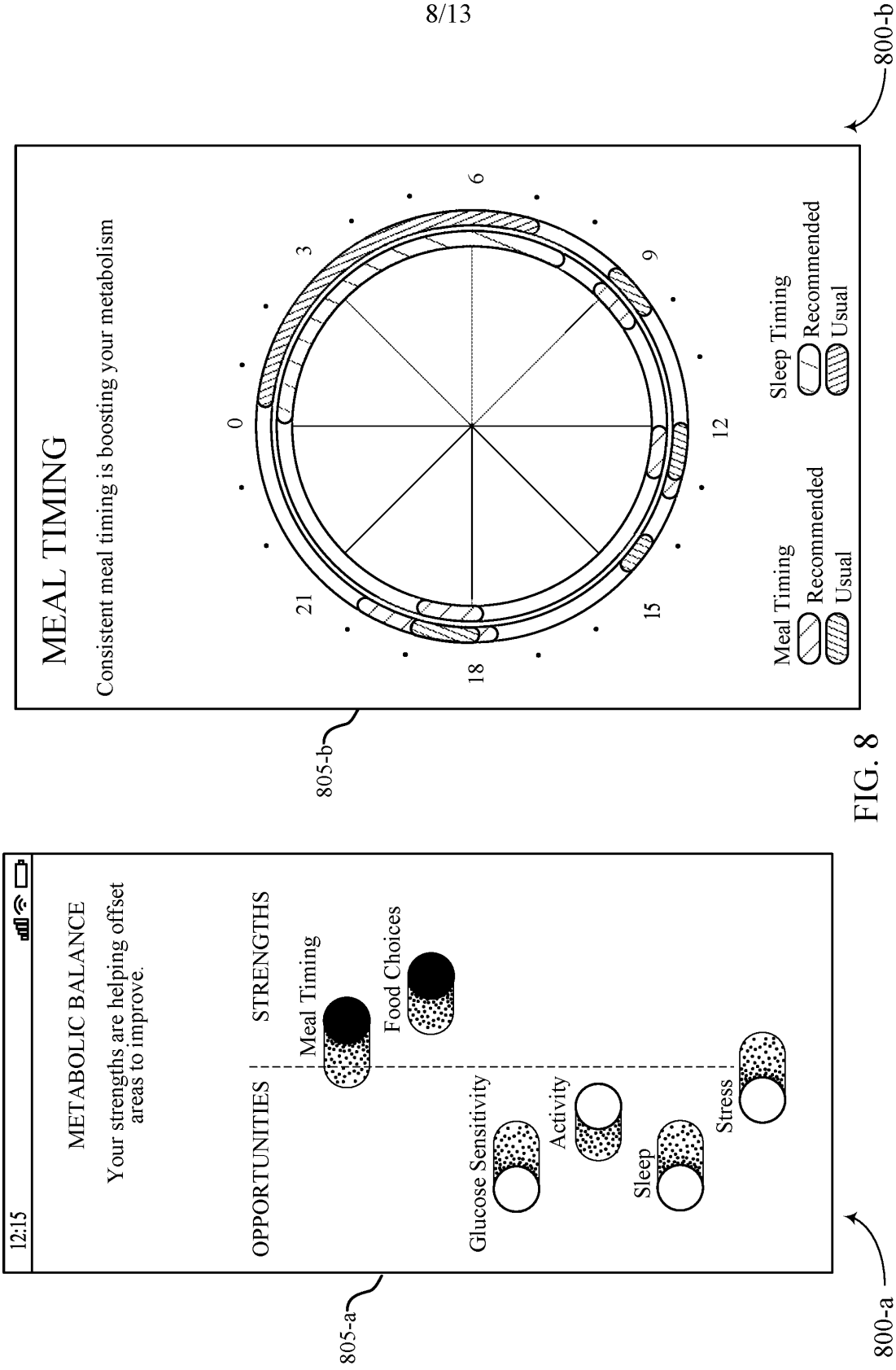

12:15
METABOLIC BALANCE
Your strengths are helping offset areas to improve.
OPPORTUNITIES
STRENGTHS
Meal Timing
Food Choices
Glucose Sensitivity
Activity
Sleep
Stress
805-a
800-a
MEAL TIMING
Consistent meal timing is boosting your metabolism
0
3
6
9
12
15
18
21
Meal Timing
Recommended
Usual
Sleep Timing
Recommended
Usual
805-b
800-b

FIG. 8

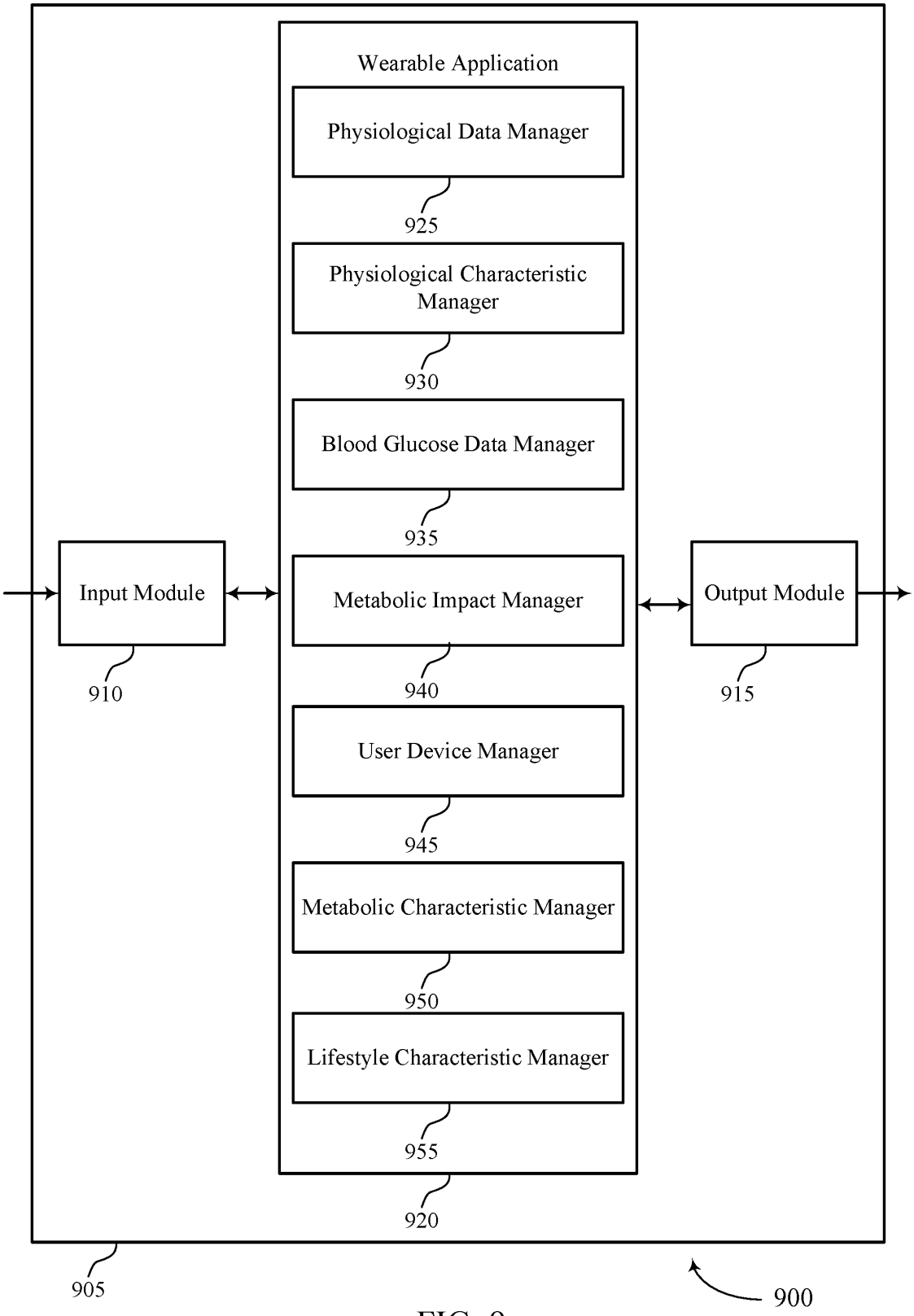

Wearable Application
Physiological Data Manager
925
Physiological Characteristic Manager
930
Blood Glucose Data Manager
935
Input Module
Metabolic Impact Manager
Output Module
910
940
915
User Device Manager
945
Metabolic Characteristic Manager
950
Lifestyle Characteristic Manager
955
920
905
900

FIG. 9

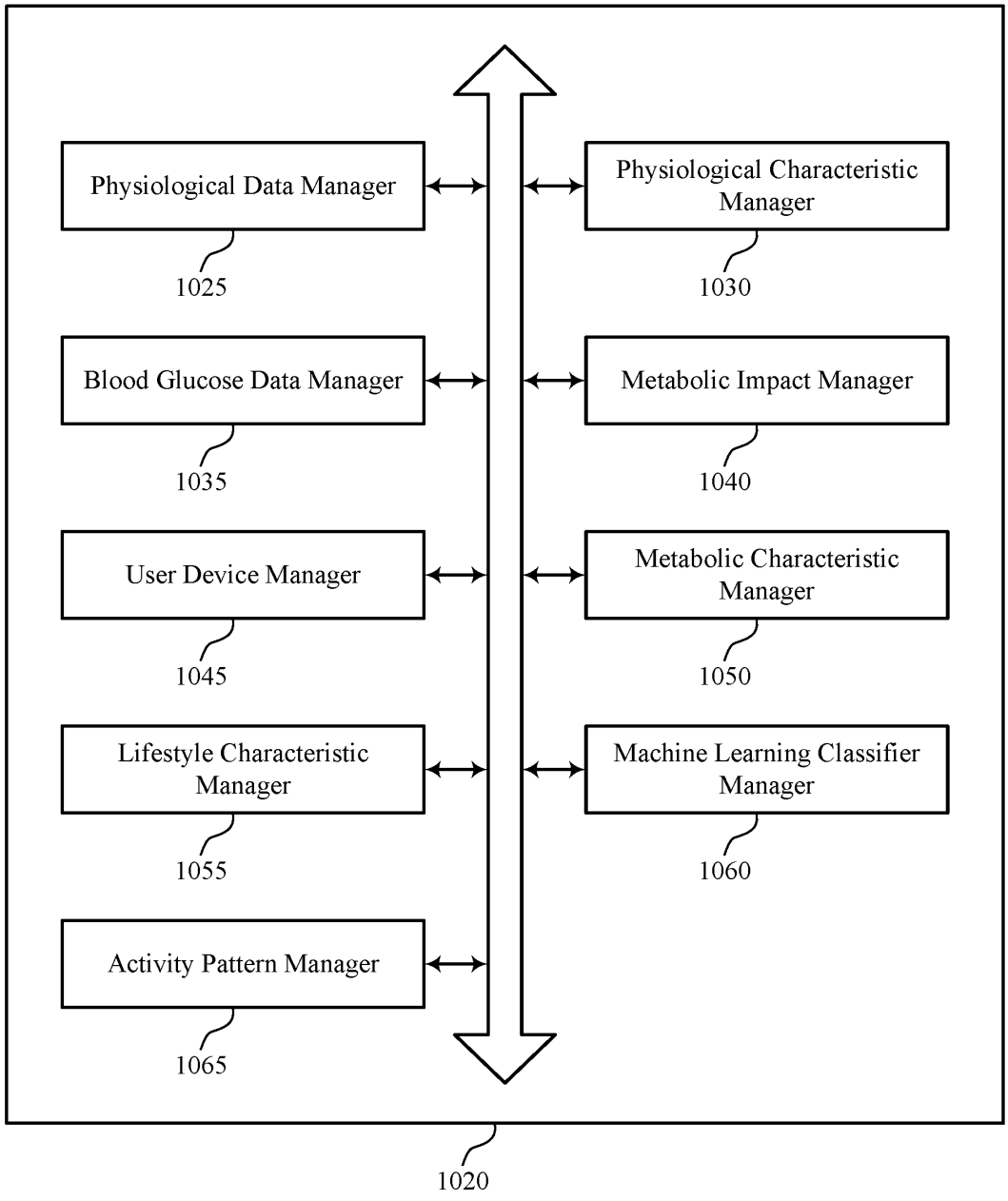

Physiological Data Manager
1025
Physiological Characteristic Manager
1030
Blood Glucose Data Manager
1035
Metabolic Impact Manager
1040
User Device Manager
1045
Metabolic Characteristic Manager
1050
Lifestyle Characteristic Manager
1055
Machine Learning Classifier Manager
1060
Activity Pattern Manager
1065
1020
1000

FIG. 10

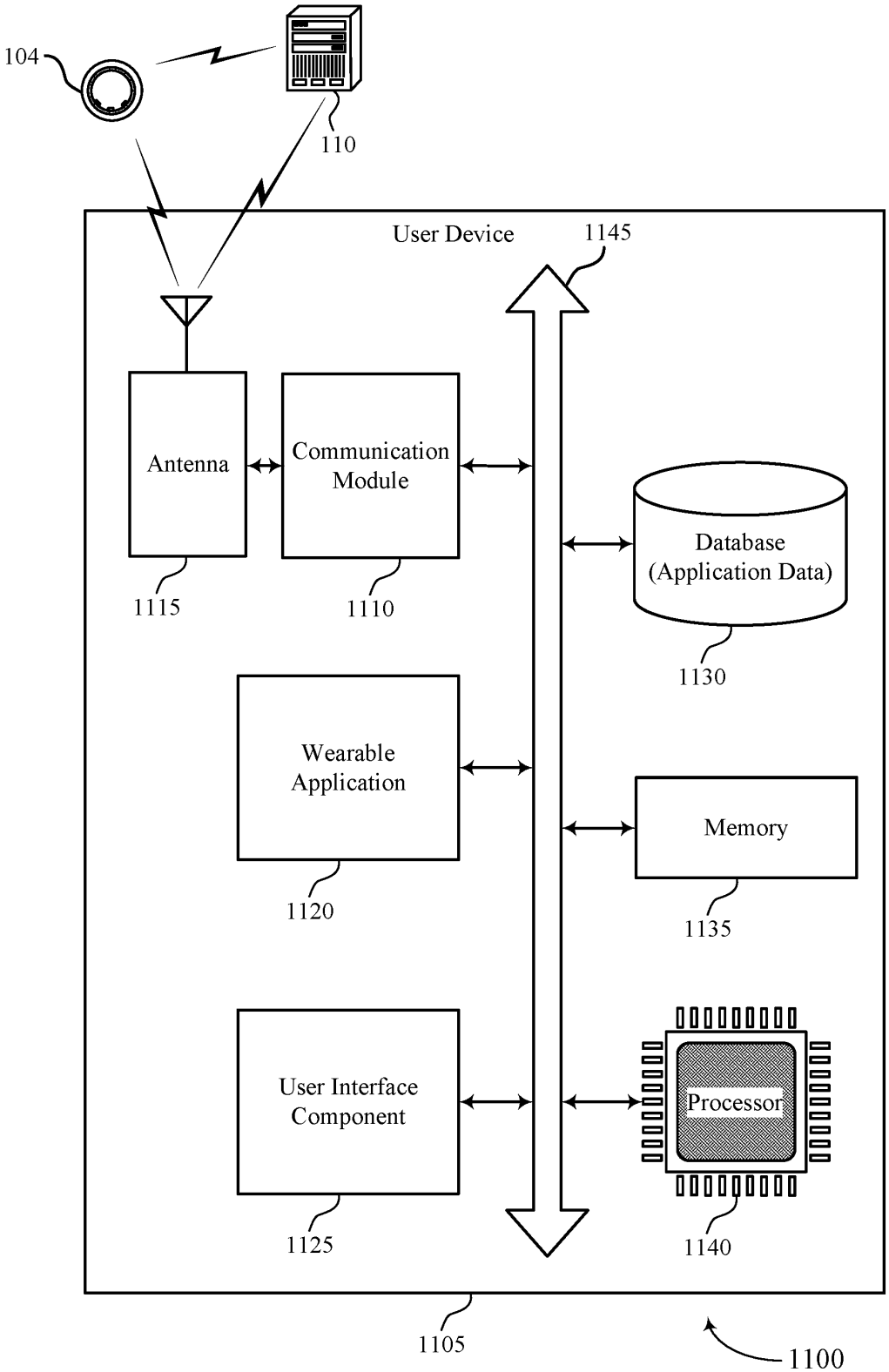

104
110
User Device
1145
Antenna
Communication Module
1115
1110
Database (Application Data)
1130
Wearable Application
1120
Memory
1135
User Interface Component
Processor
1125
1140
1105
1100

FIG. 11

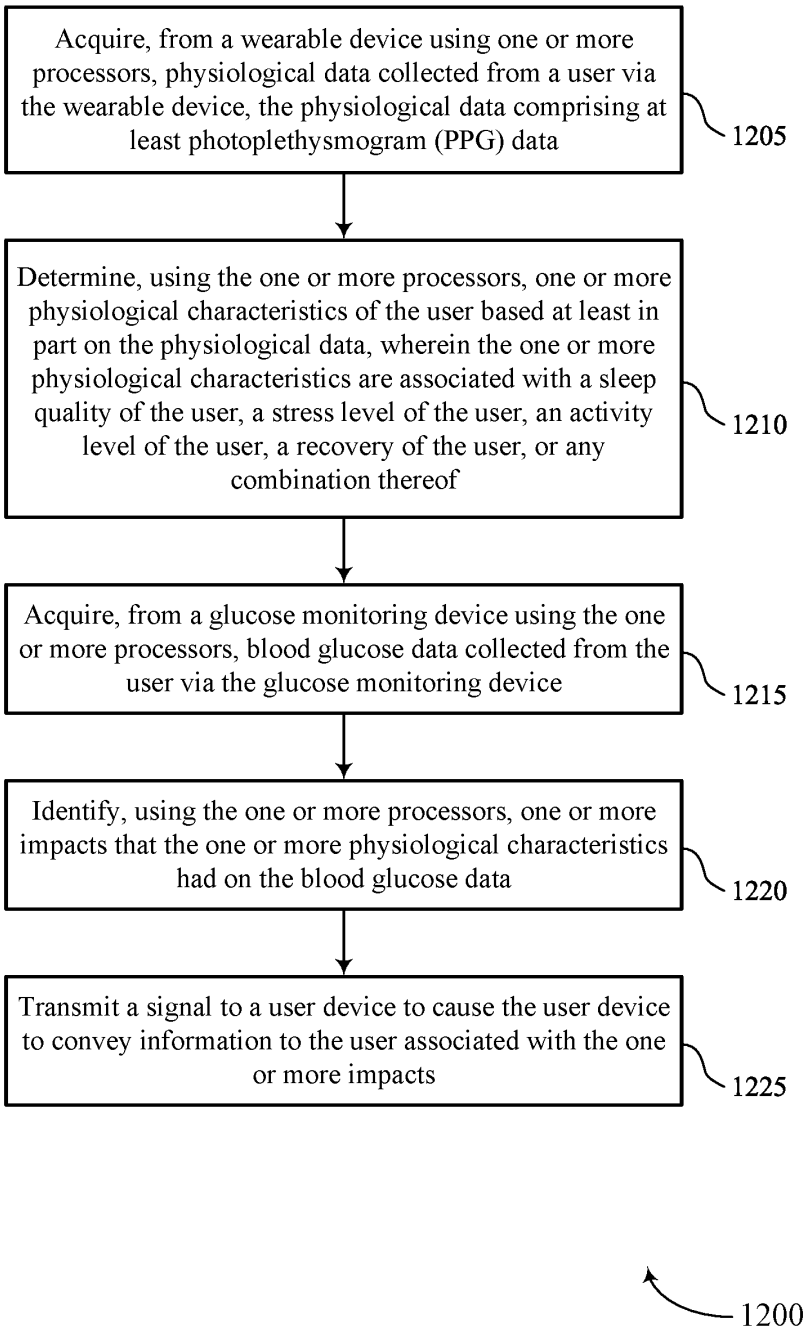

Acquire, from a wearable device using one or more processors, physiological data collected from a user via the wearable device, the physiological data comprising at least photoplethysmogram (PPG) data
1205
Determine, using the one or more processors, one or more physiological characteristics of the user based at least in part on the physiological data, wherein the one or more physiological characteristics are associated with a sleep quality of the user, a stress level of the user, an activity level of the user, a recovery of the user, or any combination thereof
1210
Acquire, from a glucose monitoring device using the one or more processors, blood glucose data collected from the user via the glucose monitoring device
1215
Identify, using the one or more processors, one or more impacts that the one or more physiological characteristics had on the blood glucose data
1220
Transmit a signal to a user device to cause the user device to convey information to the user associated with the one or more impacts
1225
1200

FIG. 12

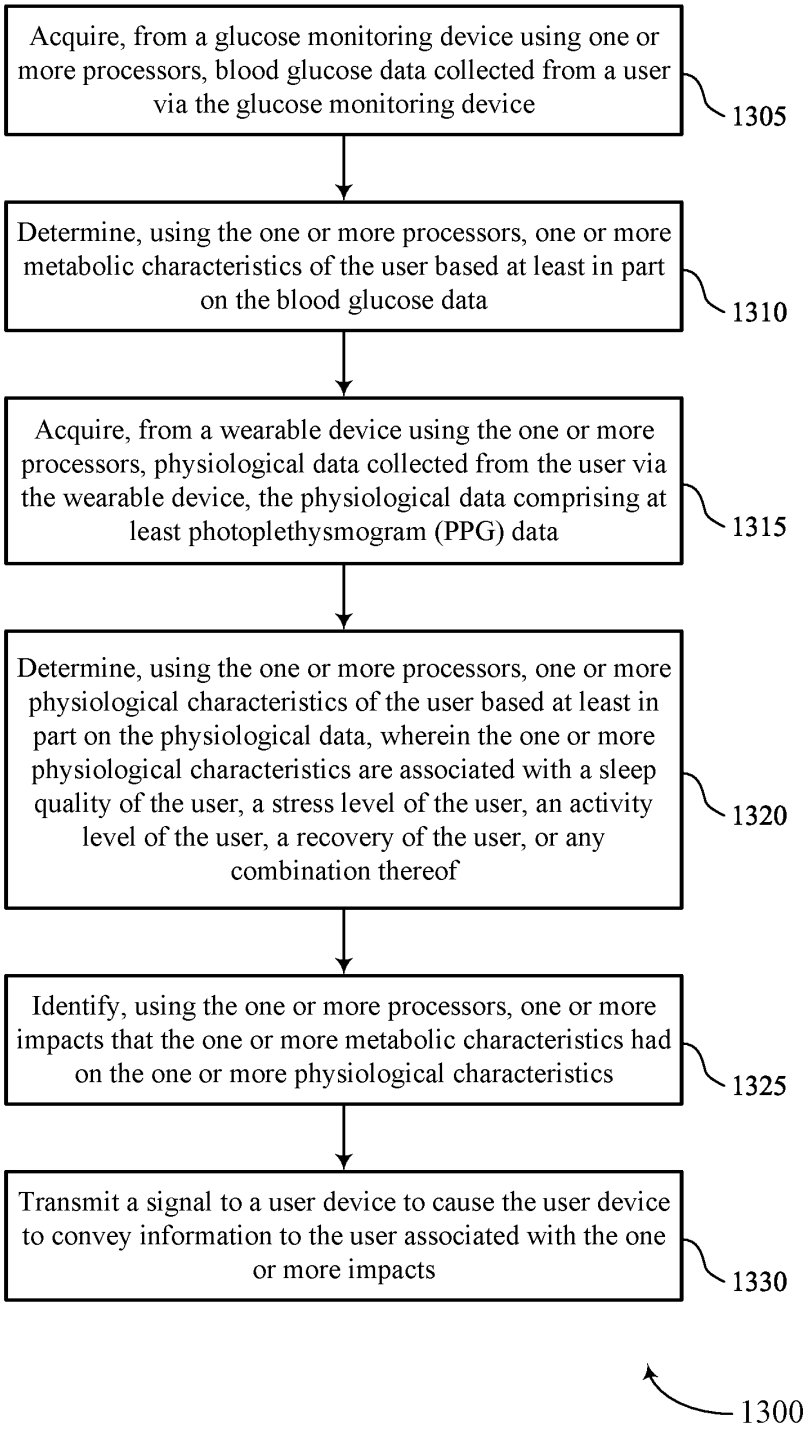

Acquire, from a glucose monitoring device using one or more processors, blood glucose data collected from a user via the glucose monitoring device
1305
Determine, using the one or more processors, one or more metabolic characteristics of the user based at least in part on the blood glucose data
1310
Acquire, from a wearable device using the one or more processors, physiological data collected from the user via the wearable device, the physiological data comprising at least photoplethysmogram (PPG) data
1315
Determine, using the one or more processors, one or more physiological characteristics of the user based at least in part on the physiological data, wherein the one or more physiological characteristics are associated with a sleep quality of the user, a stress level of the user, an activity level of the user, a recovery of the user, or any combination thereof
1320
Identify, using the one or more processors, one or more impacts that the one or more metabolic characteristics had on the one or more physiological characteristics
1325
Transmit a signal to a user device to cause the user device to convey information to the user associated with the one or more impacts
1330
1300

FIG. 13