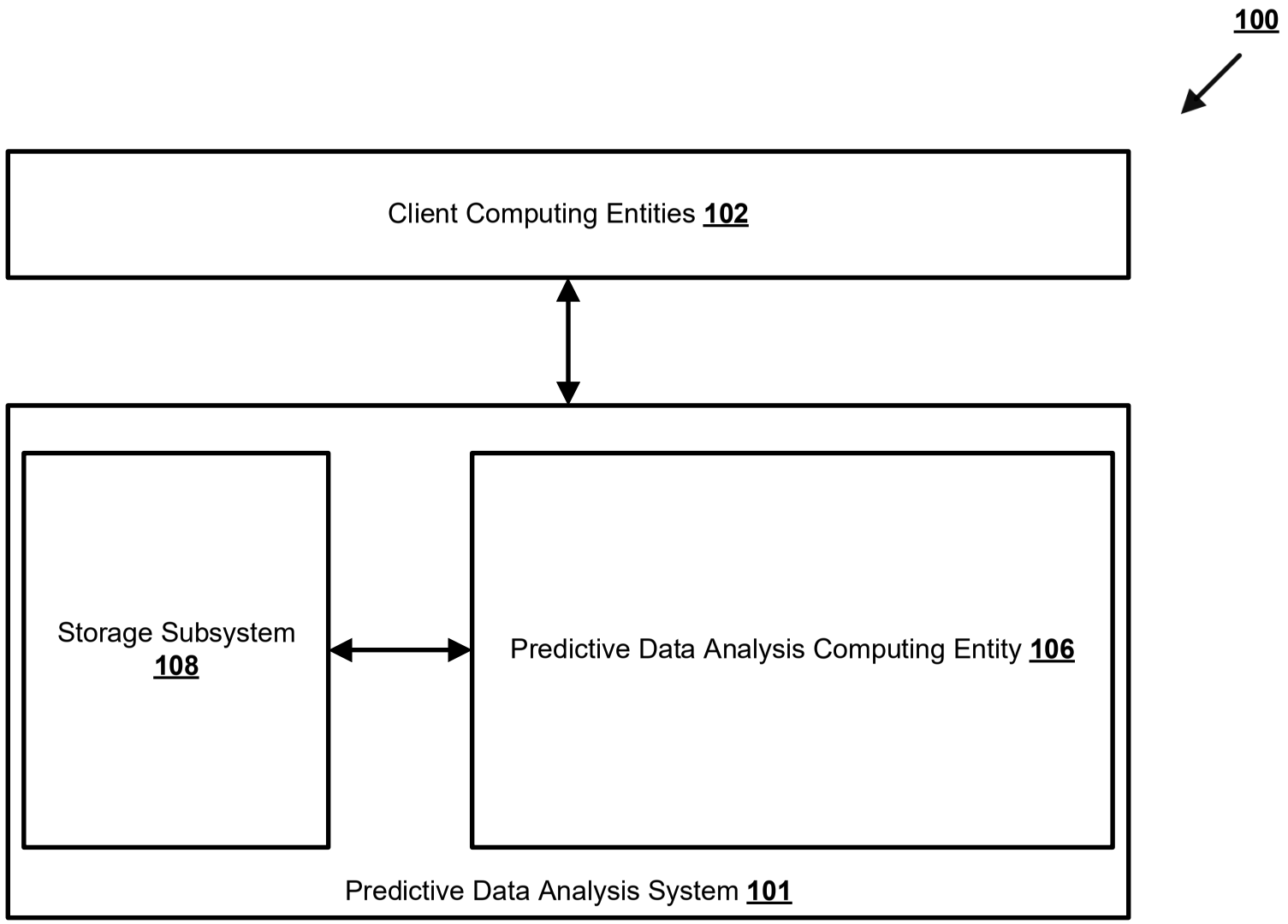
100
Client Computing Entities 102
Storage Subsystem 108
Predictive Data Analysis Computing Entity 106
Predictive Data Analysis System 101

FIG. 1

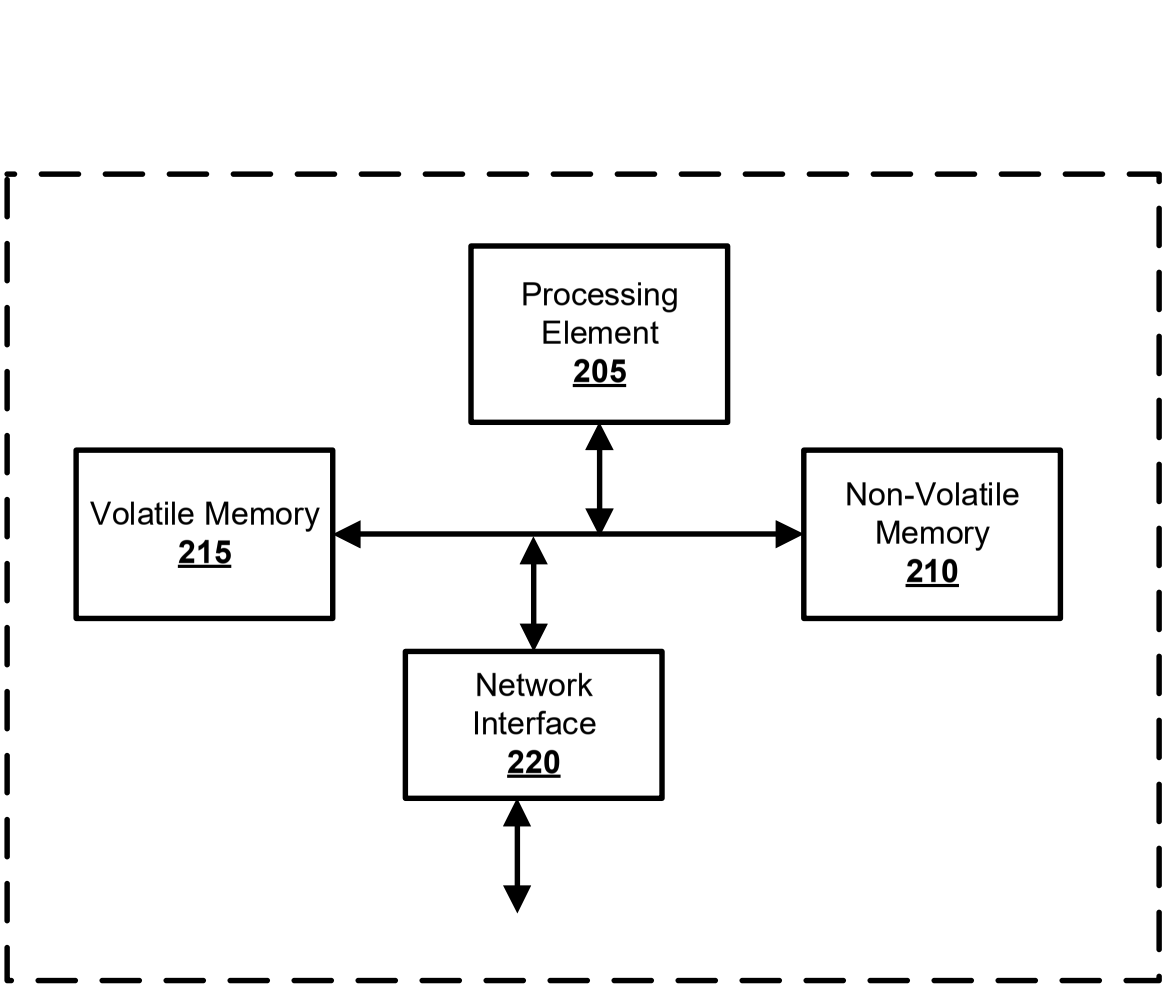
106
Processing Element 205
Volatile Memory 215
Non-Volatile Memory 210
Network Interface 220

FIG. 2

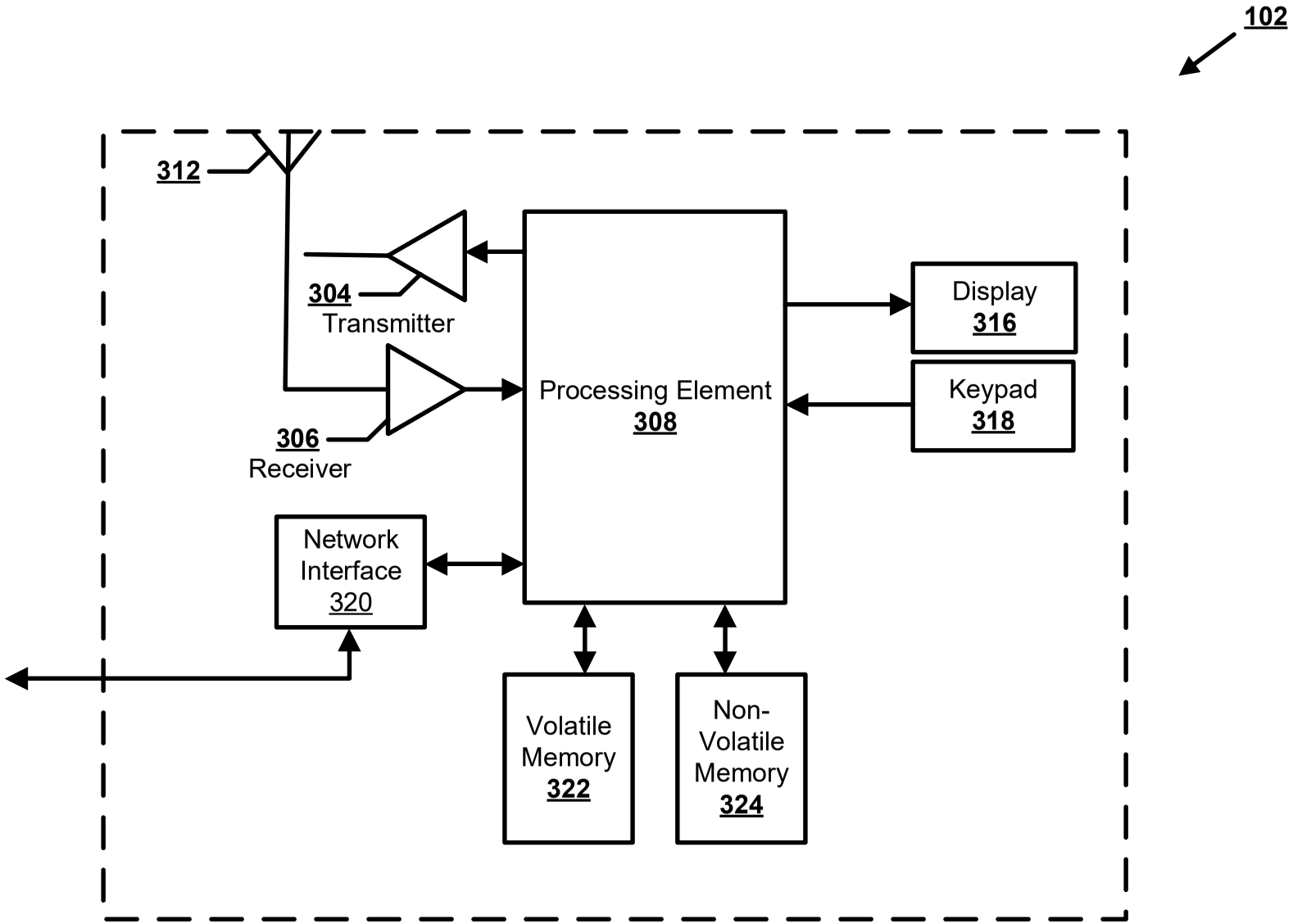
102
312
304
Transmitter
306
Receiver
Processing Element
308
Display
316
Keypad
318
Network
Interface
320
Volatile
Memory
322
Non-
Volatile
Memory
324

FIG. 3

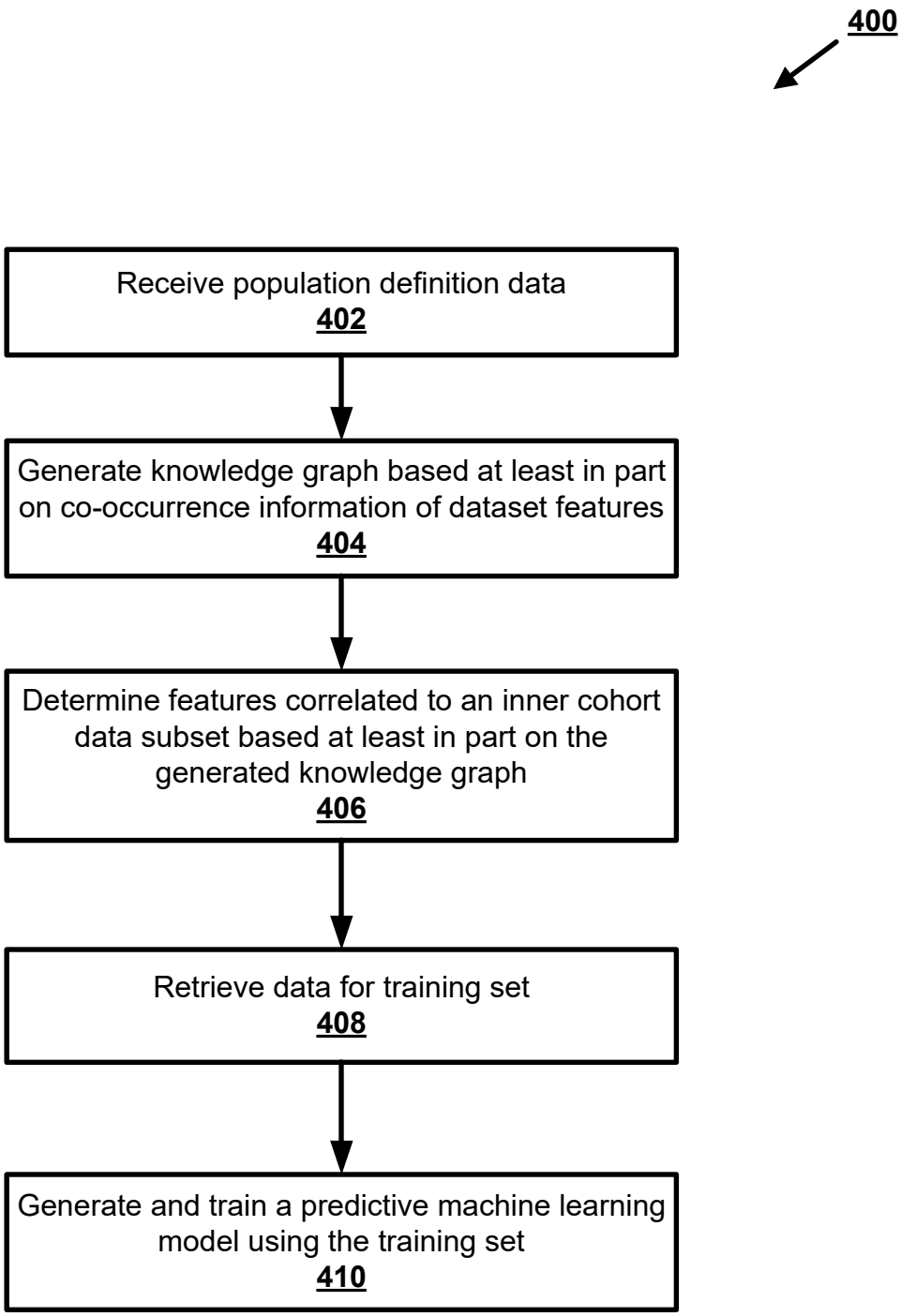
400
Receive population definition data
402
Generate knowledge graph based at least in part on co-occurrence information of dataset features
404
Determine features correlated to an inner cohort data subset based at least in part on the generated knowledge graph
406
Retrieve data for training set
408
Generate and train a predictive machine learning model using the training set
410

FIG. 4

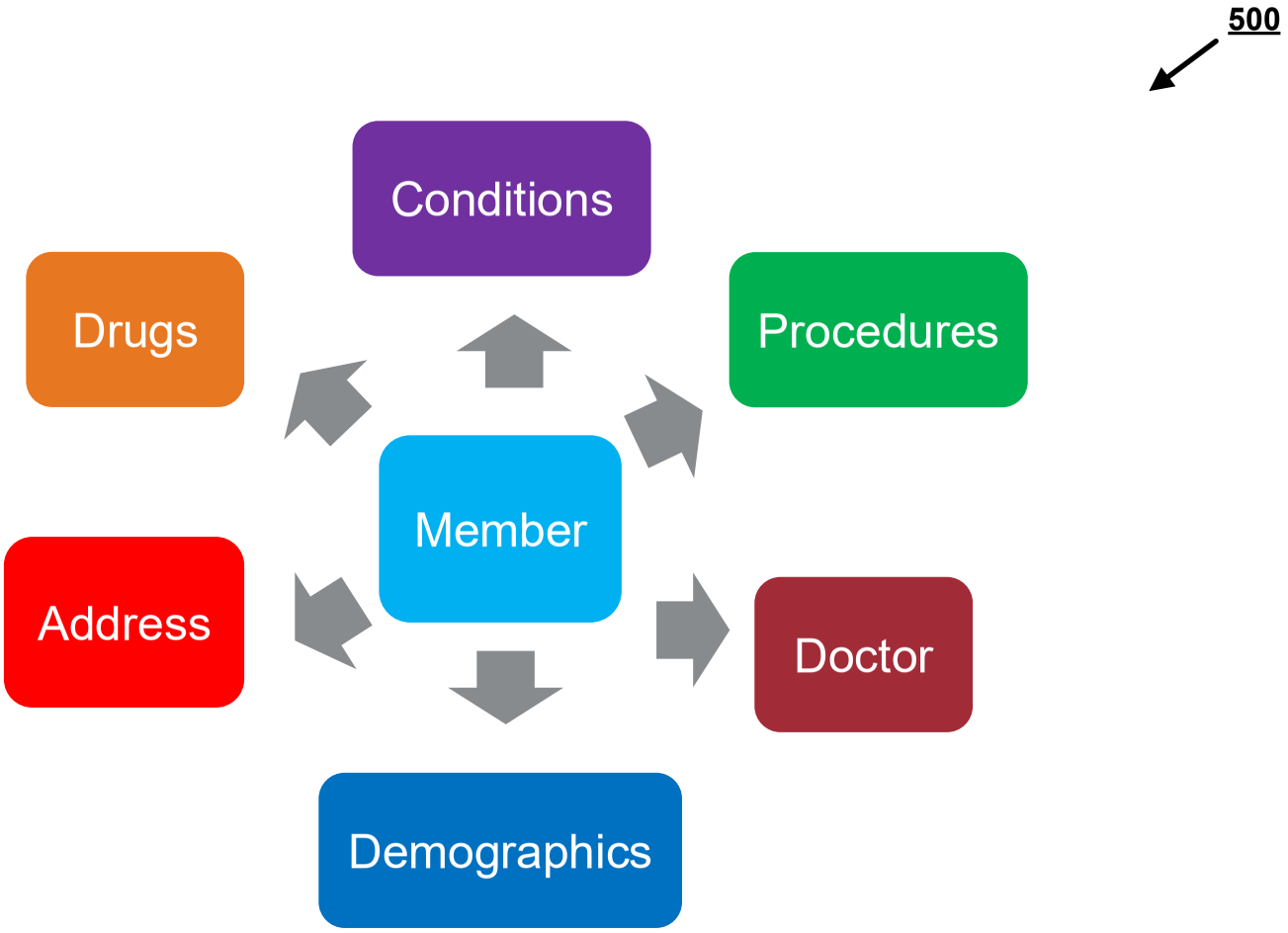
500
Conditions
Drugs
Procedures
Member
Address
Doctor
Demographics

FIG. 5

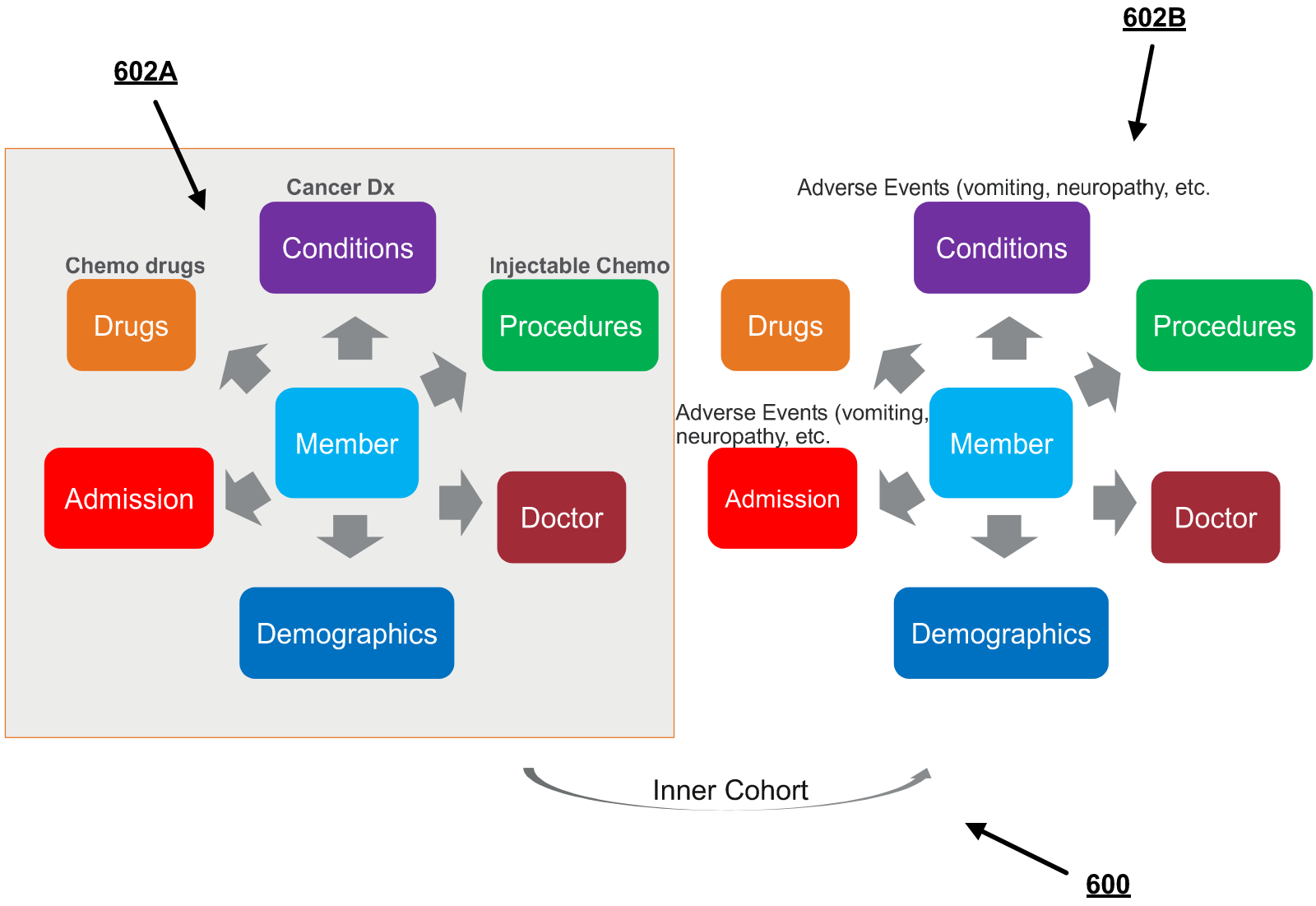
602A
602B
Cancer Dx
Conditions
Chemo drugs
Drugs
Injectable Chemo
Procedures
Member
Admission
Doctor
Demographics
Adverse Events (vomiting, neuropathy, etc.
Conditions
Drugs
Procedures
Adverse Events (vomiting, neuropathy, etc.
Member
Admission
Doctor
Demographics
Inner Cohort
600

FIG. 6

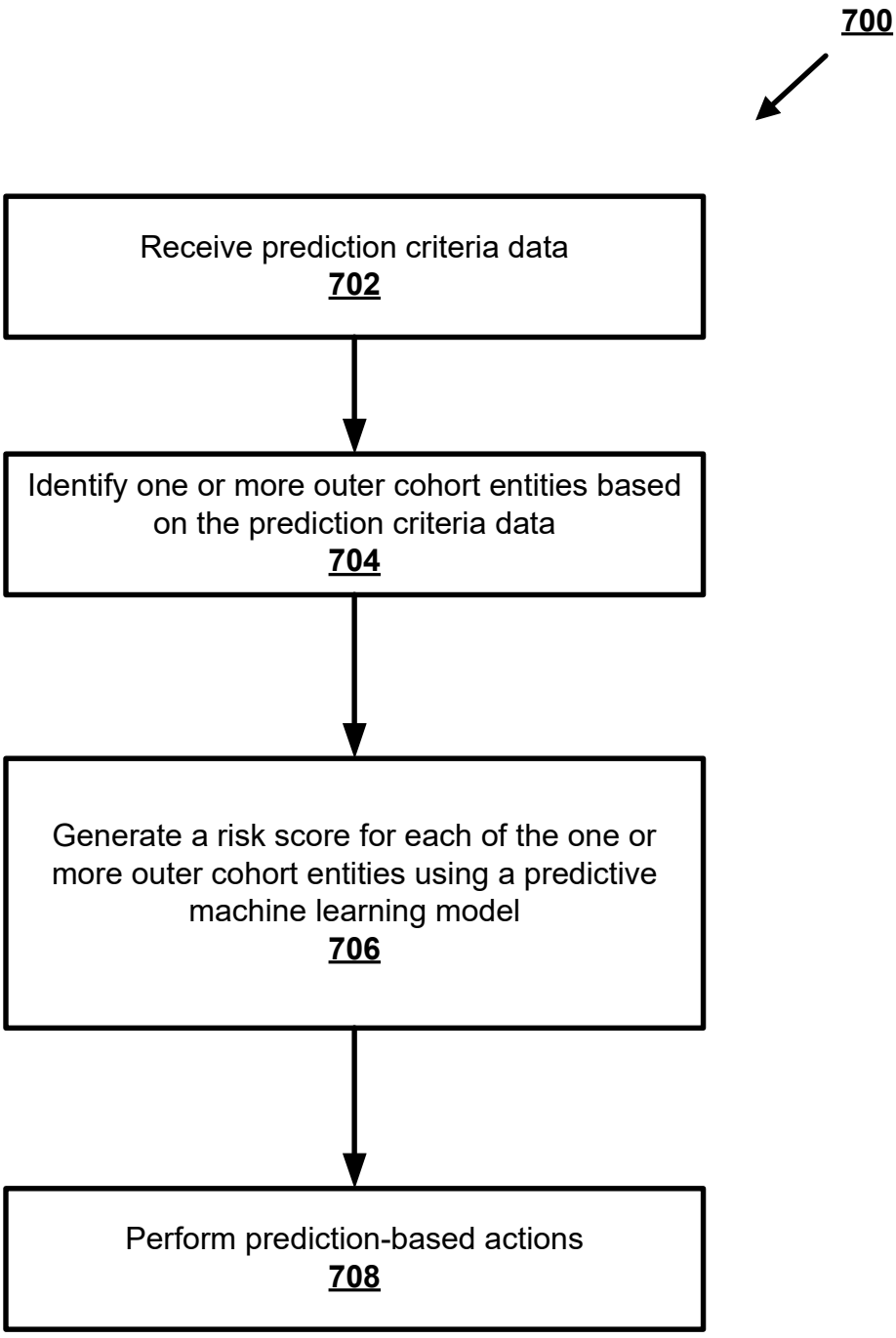
700
Receive prediction criteria data
702
Identify one or more outer cohort entities based on the prediction criteria data
704
Generate a risk score for each of the one or more outer cohort entities using a predictive machine learning model
706
Perform prediction-based actions
708

FIG. 7

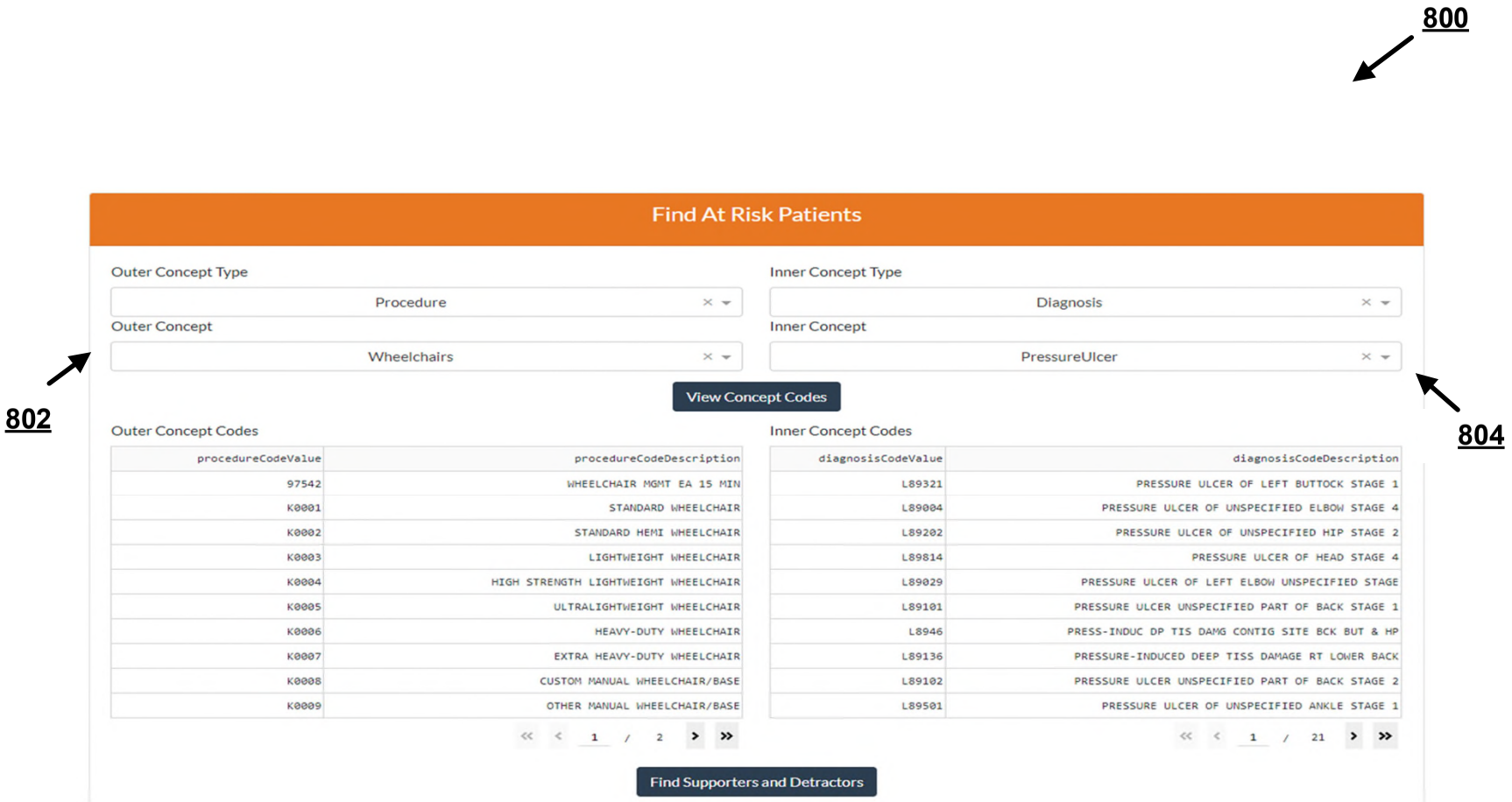
800
Find At Risk Patients
Outer Concept Type
Procedure
Inner Concept Type
Diagnosis
Outer Concept
Wheelchairs
Inner Concept
PressureUlcer
802
804
View Concept Codes
Outer Concept Codes
procedureCodeValue
procedureCodeDescription
97542
WHEELCHAIR MGMT EA 15 MIN
K0001
STANDARD WHEELCHAIR
K0002
STANDARD HEMI WHEELCHAIR
K0003
LIGHTWEIGHT WHEELCHAIR
K0004
HIGH STRENGTH LIGHTWEIGHT WHEELCHAIR
K0005
ULTRALIGHTWEIGHT WHEELCHAIR
K0006
HEAVY-DUTY WHEELCHAIR
K0007
EXTRA HEAVY-DUTY WHEELCHAIR
K0008
CUSTOM MANUAL WHEELCHAIR/BASE
K0009
OTHER MANUAL WHEELCHAIR/BASE
1 / 2
Inner Concept Codes
diagnosisCodeValue
diagnosisCodeDescription
L89321
PRESSURE ULCER OF LEFT BUTTOCK STAGE 1
L89004
PRESSURE ULCER OF UNSPECIFIED ELBOW STAGE 4
L89202
PRESSURE ULCER OF UNSPECIFIED HIP STAGE 2
L89814
PRESSURE ULCER OF HEAD STAGE 4
L89029
PRESSURE ULCER OF LEFT ELBOW UNSPECIFIED STAGE
L89101
PRESSURE ULCER UNSPECIFIED PART OF BACK STAGE 1
L8946
PRESS-INDUC DP TIS DAMG CONTIG SITE BCK BUT & HP
L89136
PRESSURE-INDUCED DEEP TISS DAMAGE RT LOWER BACK
L89102
PRESSURE ULCER UNSPECIFIED PART OF BACK STAGE 2
L89501
PRESSURE ULCER OF UNSPECIFIED ANKLE STAGE 1
1 / 21
Find Supporters and Detractors

FIG. 8