**Identification of articles via databases**

546 articles removed before screening:

Articles published in 2017 (n = 28)

Duplicates (n = 516)

Article correction (n = 2)

1396 articles identified from:

PubMed (n = 745)

Web of Science (n = 651)

**Identification**

642 articles excluded:

Reviews, editorials, or perspectives (n = 54)

Did not use EHRs (n = 37)

Did not use machine learning (n = 6)

Not focused on phenotyping (n = 545)

Title and abstract screened

(n = 850)

**Screening**

Articles assessed for eligibility

(n = 208)

108 articles excluded:

Did not use EHRs (n = 5)

Did not use machine learning (n = 40)

Not focused on phenotyping (n = 63)

**Included**

Articles included in the review

(n = 100)