

A Quest Diagnostics Company

Oral healthcare indicators

Empowering life insurers to detect potentially undisclosed smoking status, cancers, and chronic diseases that may impact mortality

Confirmation and Lift Study

Executive Summary

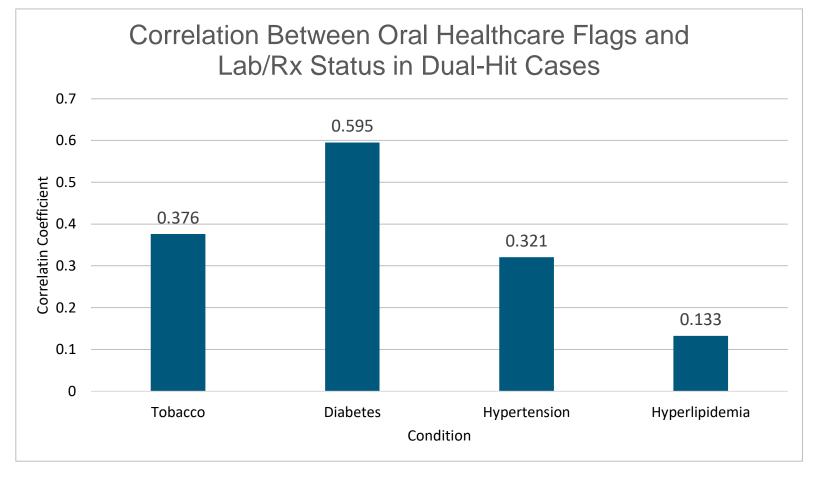
- The moderate to strong correlations between oral healthcare condition indicators and independent confirmatory data establishes the general validity of the flags
- Oral healthcare data can identify conditions not otherwise detectible in existing data sources

Study Overview

- Purpose: to determine the accuracy (based on other data sources) of oral healthcare data and the lift it provides for underwriters
- Production data and large-scale pilots
- Cases in which both oral healthcare flags and independent confirmation (LabPiQture or ScriptCheck) were available

External Validity of Oral Healthcare Condition Flags

Confirmation by Clinical Lab and Prescription History



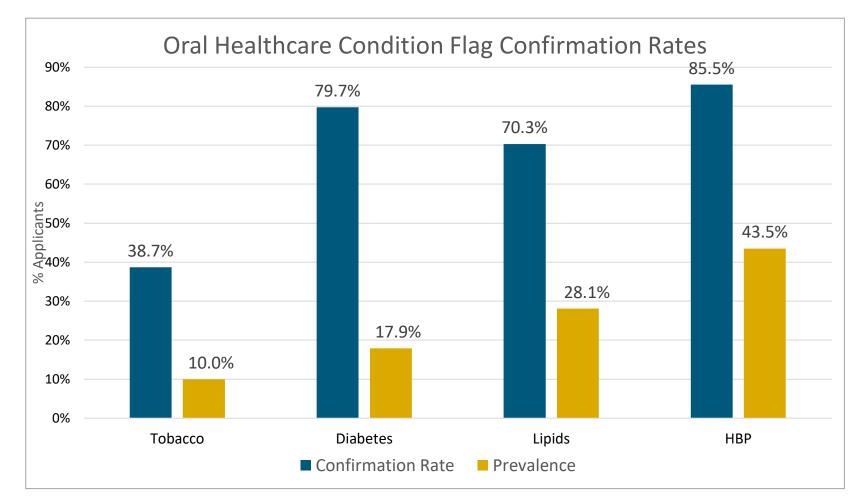
Correlation is strongest for diabetes -

possibly because this condition is somewhat less correctable through medication or lifestyle changes than tobacco, lipids, or hypertension.

Source: ExamOne internal data - ExamOne compared Sikka flags to laboratory and prescription data in orders with hits for all data sources. A correlation of 1 would imply perfect agreement, while 0 would indicate no relationship.

Confirmation Rates for Oral Healthcare Flags

High degree of confidence with Oral Healthcare flags against Clinical Lab and Prescription History



For diabetes, lipids, and HBP, confirmation rates exceed 70%, and are 2-5X higher than the background prevalence rates.

While Tobacco confirmation is lower in absolute terms, it is still roughly 4X above background.

Source: ExamOne internal data - ExamOne compared Sikka flags to laboratory and prescription data in orders with hits for all data sources.

Reliability of Oral Healthcare Condition Flags

Oral healthcare creates a lift in tobacco indicators

Oral healthcare Improvement - Increase in Condition Flags in Joint oral healthcare-Lab/RX Orders 30% 25% 20% Percentagae 15% 10% 5% 0% Tobacco Diabetes Hyperlipidemia Hypertension Condition ■ Labs ■ Overlap ■ Sikka

Among tobacco users identified by any data source, roughly 50% were identifiable only through oral healthcare flags.

Source: ExamOne internal data