

ABSTRACT OF THE INVENTION

SYSTEM AND METHOD FOR COMPREHENSIVE HEALTH INDEX CALCULATION AND PERSONALIZED WELLNESS MANAGEMENT

A computer-implemented system and method generate a bounded, interpretable
5 composite health index for a subject from heterogeneous clinical and consumer data
sources. Data from wearable vendor clouds, clinical devices and information systems,
third-party applications, report uploads and structured subjective inputs are received by
an ingestion and validation layer that enforces schema conformity, unit harmonisation,
deduplication with source precedence, outlier handling and provenance logging. A
10 normalisation pipeline maps raw measurements to a common 0–100 scale, optionally
applying monotone shaping. Domain sub-scores are computed by convex aggregation
and combined into a composite index using dynamic, context-dependent weights
selected or adapted with reference to subject context and sentinel biomarkers. A
classifier assigns Green/Yellow/Red risk classes, and guard-rail logic caps or penalises
15 the index to prevent masking of critical risk. Outputs include user dashboards, clinician
reports and alerts; optional embodiments provide rules-based recommendations and
predictive risk. Security, consent and versioning ensure auditability.

(FIG. 2)