



At the heart of the HMRC research is the Health Risk Appraisal (HRA) which was originally developed with the CDC/Carter Center in order to better all influences on health. The year 2010 marked the 30th anniversary of the HRA. The modern version of the HRA is focused on lifestyle behaviors that directly affect health. The HRA is the core data gathering tool predictive of healthcare utilization within 1-3 years and so risks are directly connected to costs.

The HRA has been used extensively over time and the results from over 5 million HRAs, representing 3 million lives, is stored in our big database. The big database is used for bench-marking, research and analysis. Written at an 8th grade level, the HMRC HRA is easy to use, requiring less than 15 minutes to complete. It is supported by lessons learned (published research) and sophisticated algorithms developed from those learnings. The UM-HMRC HRA can best be used to assess individual progress within any life-style, behavior-based health management program. Such a program is most effective when it has a main goal of prevention—to keep healthy people healthy through maintenance of good habits, and reduction of bad habits before they result in disease development.

15 risks with their respective risk cuts:

Alcohol	Male: More than 14 drinks per week. Female: More than 7 drinks per week.
Blood Pressure	Systolic greater than 139 mmHg or diastolic greater than 89 mmHg or self-report have high or currently on blood pressure medication or under medical care
Body Weight	Body Mass Index (BMI) equal or greater than 27.5
Cholesterol	Greater than 6.2 mmol/L (239 mg/dL)
Existing Medical Conditions	Self-Reported Heart Problems, Cancer, Diabetes, Past Stroke, Chronic Bronchitis/Emphysema
Health Age Index	Greater than 4 – See Glossary for description
Illness Days	More than 5 days in the past year
Job Satisfaction	Disagree or strongly disagree
Life Satisfaction	Partly or not satisfied
Medication/Drug for Relaxation	Almost every day or sometimes
Perceived Health	Fair or poor
Physical Activity	Less than one time per week
Safety Belt Use	Less than 100 percent
Smoking	Current cigarette smoker

Stress S-scale greater than 20 (based on a composite score from answers to marital status, personal loss, life satisfaction, perception of health, hours of sleep, social ties); or selected "a lot" for effect of stress on personal health; or selected "often" feel tense, anxious, or depressed.

Updates

All changes to the HRA are made with science in mind. Every question is used to determine risk and the impact of lifestyle behavior on mortality and morbidity. Questions are usually updated to further assess the actual risk connected with the behavior.

Reports

Each individual will receive a Health risk Profile, identifying the top three health areas that they should focus on. It also identifies the areas where they are doing well and the areas where they can improve. Five key health measures are summarized in a bar chart--it shows where they are currently and their target. A health analysis chart identifies five conditions which directly relate to morbidity/mortality. Eight different health focus areas discuss a person's status within each area in more detail.

For groups larger than 50, the employer will receive an aggregated report the first year. This report includes a ten page Executive Summary giving the highlights of the group and includes demographics, prioritized risks, risk prevalence, risk stratification, average risk and wellness score, readiness to change, and preventative recommendations. In section two, the questions from the HRA are grouped together and the answers chosen for each question is given.

In subsequent years, the individual will receive a progress profile, showing where they were the last time they took the HRA in a few key areas, plus they will receive a full profile with their current health status. The employer can also receive a repeat aggregate report showing the population that took the HRA twice. This will allow the employer to assess the direct impact of health management programs on the population.

[Glossary](#)

Wellness Score

The wellness score is generated from three major components: mortality risks, health risks and preventive services compliance. The mortality risks based on age and gender account for 38% - 44% of the score. The health risks (e.g., smoking, physical activity, body mass index, etc) account for 50% of the score. Preventive services compliance accounts for the remaining 6% -12% of the score.

Health Age Index

This index compares the appraised and achievable ages of a participant. The appraised age is a derived age corresponding to a person's health risks. The achievable age is a derived age calculated by modifying all health risks. If the difference between the appraised age and the achievable age is greater than 4, the person is considered to be high risk in this index.