

## **SF36 Health Status Tool**

The SF36 was developed at Rand in the late 80's. John Ware was one of the principal investigators. SF stands for “short form” and 36 questions. This tool has been used extensively in health care organizations to monitor and assess general health status. The inset below is from a Rand website.

As part of the Medical Outcomes Study (MOS) — a multi-year, multi-site study to explain variations in patient outcomes — RAND developed the 36-Item Short Form Health Survey (SF-36). SF-36 is a set of generic, coherent, and **easily administered quality-of-life measures**. These measures rely upon **patient self-reporting** and are now widely utilized by managed care organizations and by Medicare for routine monitoring and assessment of care outcomes in adult patients.

From [http://www.rand.org/health/surveys\\_tools/mos/mos\\_core\\_36item.html](http://www.rand.org/health/surveys_tools/mos/mos_core_36item.html)

Those 36 questions are tabulated into 8 indices. They are in the left column below. The indices are scored from 0 (“no” health) to 100 (“perfect/excellent” health).

<b>Index</b>
<b>Physical Functioning</b>
<b>Role Limitations due to Physical Health</b>
<b>Role Limitations due to Emotional Problems</b>
<b>Energy/Fatigue</b>
<b>Emotional Well-being</b>
<b>Social Functioning</b>
<b>Pain</b>
<b>General Health</b>

### **3 Principles Impact on SF36 Health Status Scores – 12 Month Follow Up**

#### Results for Initial 5 Groups

A business with over 5,500 employees in Central Iowa offered the opportunity for employees to participate in the 3 Principles trainings offered in the community. The employees who participated in 3 Principles training are asked to complete SF36 surveys. A **Pre** workshop survey is given at the start of the 2 ½ day session. Participants are asked to complete the survey again **6 months** and **12 months** after completing the workshop. This analysis focuses on those 36 participants that **attended** one of the first five workshops in Central Iowa in 2006 and early 2007, and who also **completed** the 12 month “follow-up” survey. Sixty-seven employees participated in one of the 1<sup>st</sup> five sessions; survey participation at the 12 month point was 54% (36/67).

The SF36 is a 36 item health status survey developed by Rand researchers over 25 years ago. It has been and continues to be used extensively in health status research. Responses are tabulated into 8 Indexes - scales/measures of health status – with a score of 100 being excellent and a score of 0 indicating very poor health on this dimension. This analysis compares changes in the average scores on each index. The basic question is “Did health status change for participants in the 3 Principles training?”

Results: Status improved for each of the measures (change was positive); the increase ranged from 4.5 to 20.4 points on a hundred point scale. The changes were statistically significant for 4 of the 8 measures (in bold). In other words, these changes were not random or due to chance, but most likely the result of an intervention.

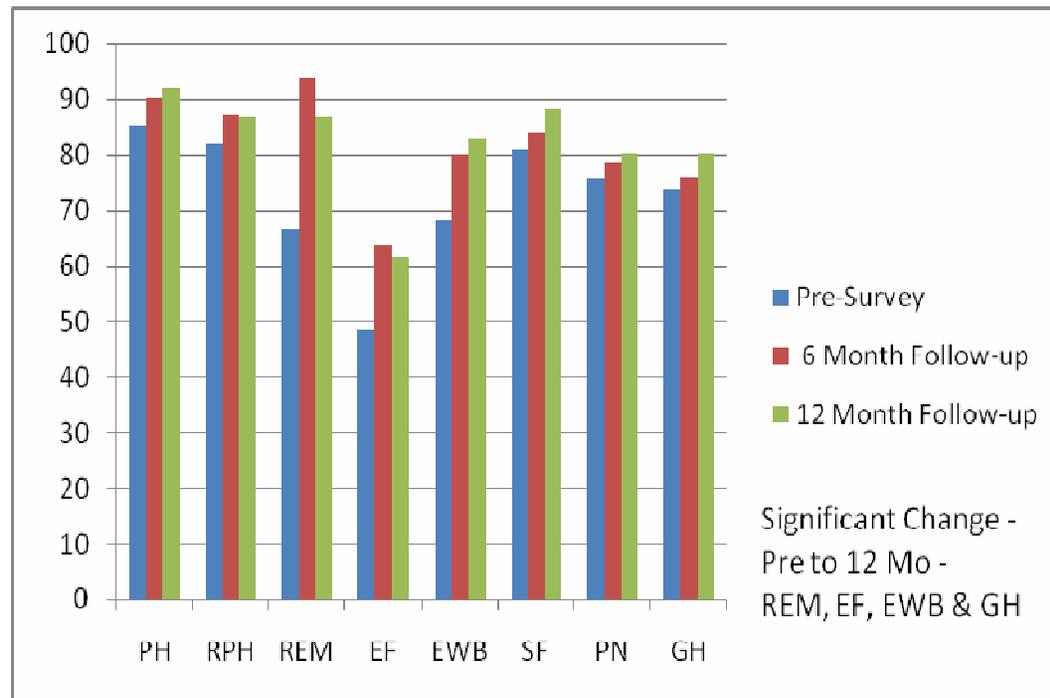
#### **Impact of 3 Principles on Perceived Health Status**

<b>Index</b>	<b>Pre-Survey</b>	<b>12 Month Follow-up</b>	<b>Change</b>
<b>Physical Functioning</b>	85.1	91.9	6.8
<b>Role Limitations due to Physical Health</b>	81.9	86.8	4.9
<b>Role Limitations due to Emotional Problems</b>	66.7	87.0	<b>20.4</b>
<b>Energy/Fatigue</b>	48.5	61.5	<b>13.1</b>
<b>Emotional Well-being</b>	68.2	82.6	<b>14.3</b>
<b>Social Functioning</b>	80.9	88.2	7.3
<b>Pain</b>	75.7	80.2	4.5
<b>General Health</b>	73.5	80.3	<b>6.8</b>

Scores increased for all of the indexes. Changes were significant for the 4 measures in **Bold**. P values were < 0.01 for the first three; the p value for General Health was 0.049. These 12 month follow up findings are consistent with the analysis of 6 month follow up data, although the General Health change was only 3.8 in the 6 month study.

### **CHART: 3 Principles Impact on SF36 Scores, Pre, 6 and 12 Month Follow Up**

The chart below shows the SF36 Index scores for each of the 3 points in time. A score of 100 would be “perfect health” on that index. The “blue” column indicates the index score on a Pre workshop basis. For example, Energy and Fatigue level was below 50 for the Pre workshop measure. The Energy and Fatigue score was above 60 on both the 6 and 12 month follow up surveys. All 6 and 12 month scores are **above** the corresponding Pre scores.



Changes for REM (Role Limitations due to Emotional Problems), EF (Energy/Fatigue), EWB (Emotional Well-Being) and GH (General Health) from the Pre to 12 month were significant ( $p < 0.05$ ). Changes from Pre to 6 month were significant for the first 3. Changes from 6 months to 12 months were varied; 5 increased and while scores on 3 indices decreased. None of the changes from 6 to 12 months were significant.