

**Supplementary Figure 1. PROMIS Short Forms Questions**

**PROMIS SF v1.0/1.1- Global**

In general, would you say your health is:  
 In general, would you say your quality of life is:  
 In general, how would you rate your physical health?  
 In general, how would you rate your mental health, including your mood and your ability to think?  
 In general, how would you rate your satisfaction with your social activities and relationships?  
 In general, please rate how well you carry out your usual social activities and roles. (This includes activities at home, at work and in your community, and responsibilities as a parent, child, spouse, employee, friend, etc.)  
 To what extent are you able to carry out your everyday physical activities such as walking, climbing stairs, carrying groceries, or moving a chair?

In the past 7 days:

How often have you been bothered by emotional problems such as feeling anxious, depressed or irritable?  
 How would you rate your fatigue on average?  
 How would you rate your pain on average?

**PROMIS SF v.10-Emotional Distress-Depression 8a**

In the past 7 days...

I felt worthless...  
 I felt helpless...  
 I felt depressed...  
 I felt hopeless...  
 I felt like a failure...  
 I felt unhappy...  
 I felt that I had nothing to look forward to...  
 I felt that nothing could cheer me up....

**PROMIS SF v1.0- Fatigue**

During the past 7 days...

I feel fatigue  
 I have trouble starting things because I am tired

In the past 7 days...

How run-down did you feel on average?  
 How fatigued were you on average?  
 How much were you bothered by your fatigue on average?  
 To what degree did your fatigue interfere with your physical functioning?  
 How often did you have to push yourself to get things done because of your fatigue?  
 How often did you have trouble finishing things because of your fatigue?

**PROMIS SF v1.0-Pain Interference 8a**

In the past 7 days...

How much did pain interfere with your day to day activities?  
 How much did pain interfere with work around the home?  
 How much did pain interfere with your ability to participate in social activities?  
 How much did pain interfere with your enjoyment of life?  
 How much did pain interfere with the things you usually do for fun?  
 How much did pain interfere with your enjoyment of social activities?  
 How much did pain interfere with your household chores?  
 How much did pain interfere with your family life?

**PROMIS SF v1.0- Pain Intensity**

In the past 7 days...

How intense was your pain at its worst?  
 How intense was your average pain?  
 What is your level of pain right now?

**PROMIS SF v1.0- Physical Function 12a**

Are you able to walk a block on flat ground?  
 Are you able to walk up and down two steps?  
 Are you able to run at a fast pace for two miles?  
 Are you able to do yard work like raking leaves, weeding, or pushing a lawn mower?  
 Does your health now limit you in doing strenuous activities such as backpacking, skiing, playing tennis, bicycling or jogging?  
 Does your health now limit you in hiking a couple of miles on uneven surfaces, including hills?  
 Are you able to wash and dry your body?  
 Are you able to get in and out of bed?  
 Are you able to bend down and pick up clothing from the floor?  
 Are you able to push open a heavy door?  
 Are you able to reach and get down an object (such as a can of soup) from above your head?  
 Does your health now limit you in doing eight hours of physical labor?

**Supplementary Figure 2.** Distribution of PROMIS (on left) and legacy scores (on right) in ankylosing spondylitis.

