Appendix 3: Supplementary figures [posted as supplied by author]

Figure A SF-12 physical component summary (PCS) scores within 8-year follow-up for 1,327 Osteoarthritis Initiative (OAI) participants with knee osteoarthritis at baseline who had no total knee replacement (TKR) *v* who underwent TKR. Median SF-12 scores and interquartile ranges are shown. The dotted lines indicate the median times to TKR in each group. No outcome data were available at 5 and 7 year follow-up

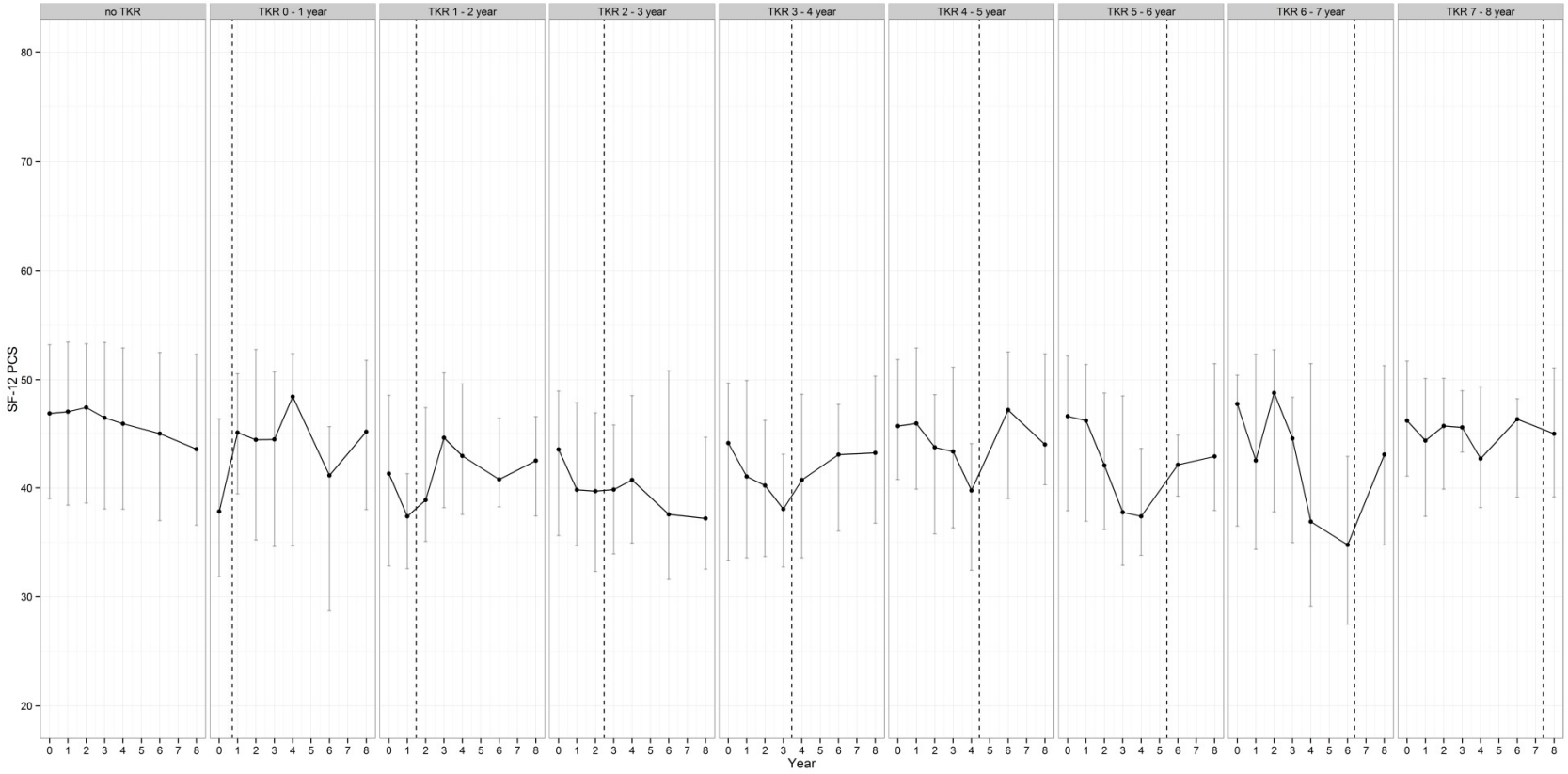


Figure B SF-12 mental component summary (MCS) scores within 8-year follow-up for 1,327 Osteoarthritis Initiative (OAI) participants with knee osteoarthritis at baseline who had no total knee replacement (TKR) *v* who underwent TKR. Median SF-12 scores and interquartile ranges are shown. The dotted lines indicate the median times to TKR in each group. No outcome data were available at 5 and 7 year follow-up

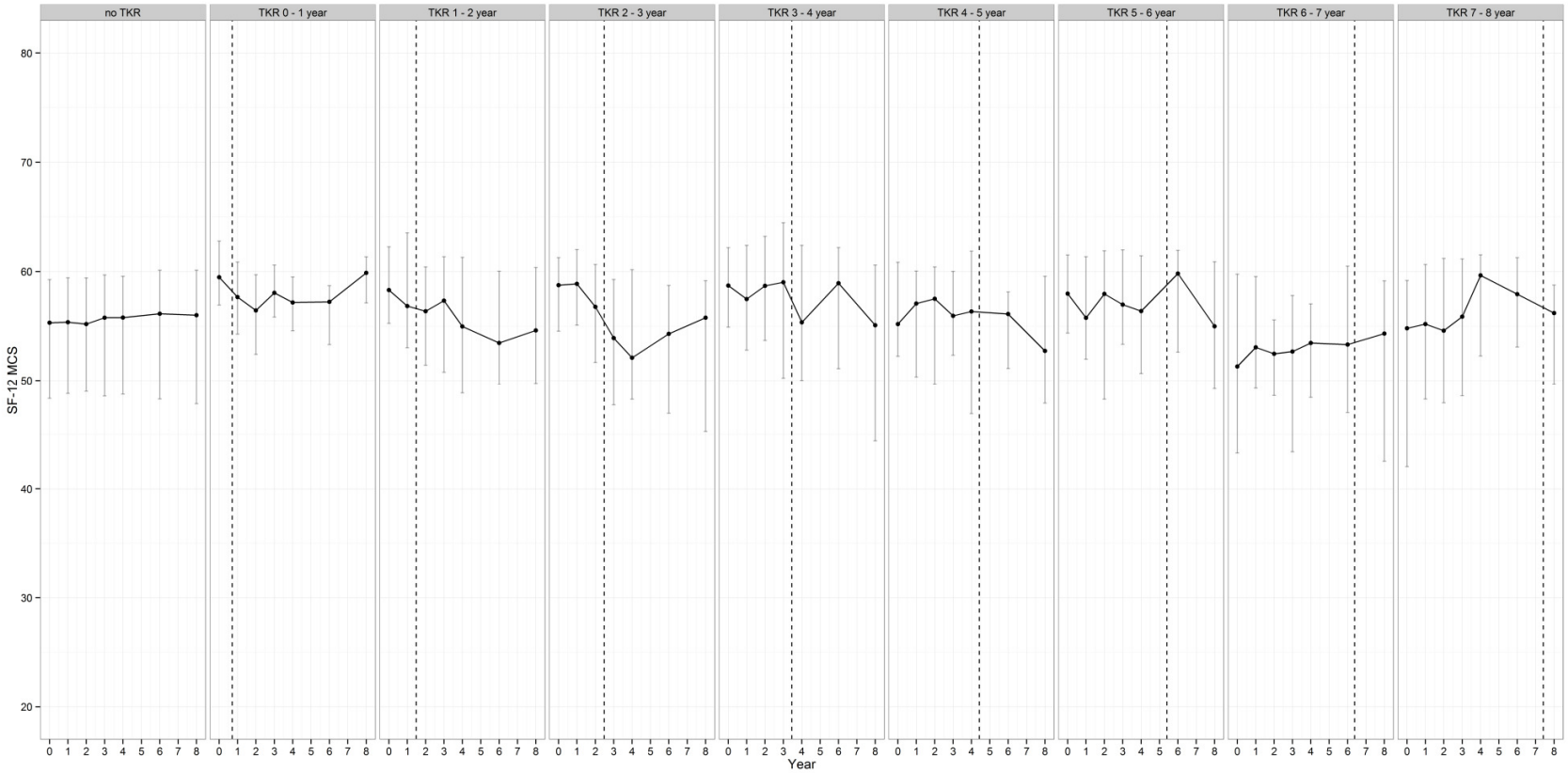


Figure C SF-6D utility indexes within 8-year follow-up for 1,327 Osteoarthritis Initiative (OAI) participants with knee osteoarthritis at baseline who had no total knee replacement (TKR) *v* who underwent TKR. Median SF-6D utility scores and interquartile ranges are shown. The dotted lines indicate the median times to TKR in each group. No outcome data were available at 5 and 7 year follow-up

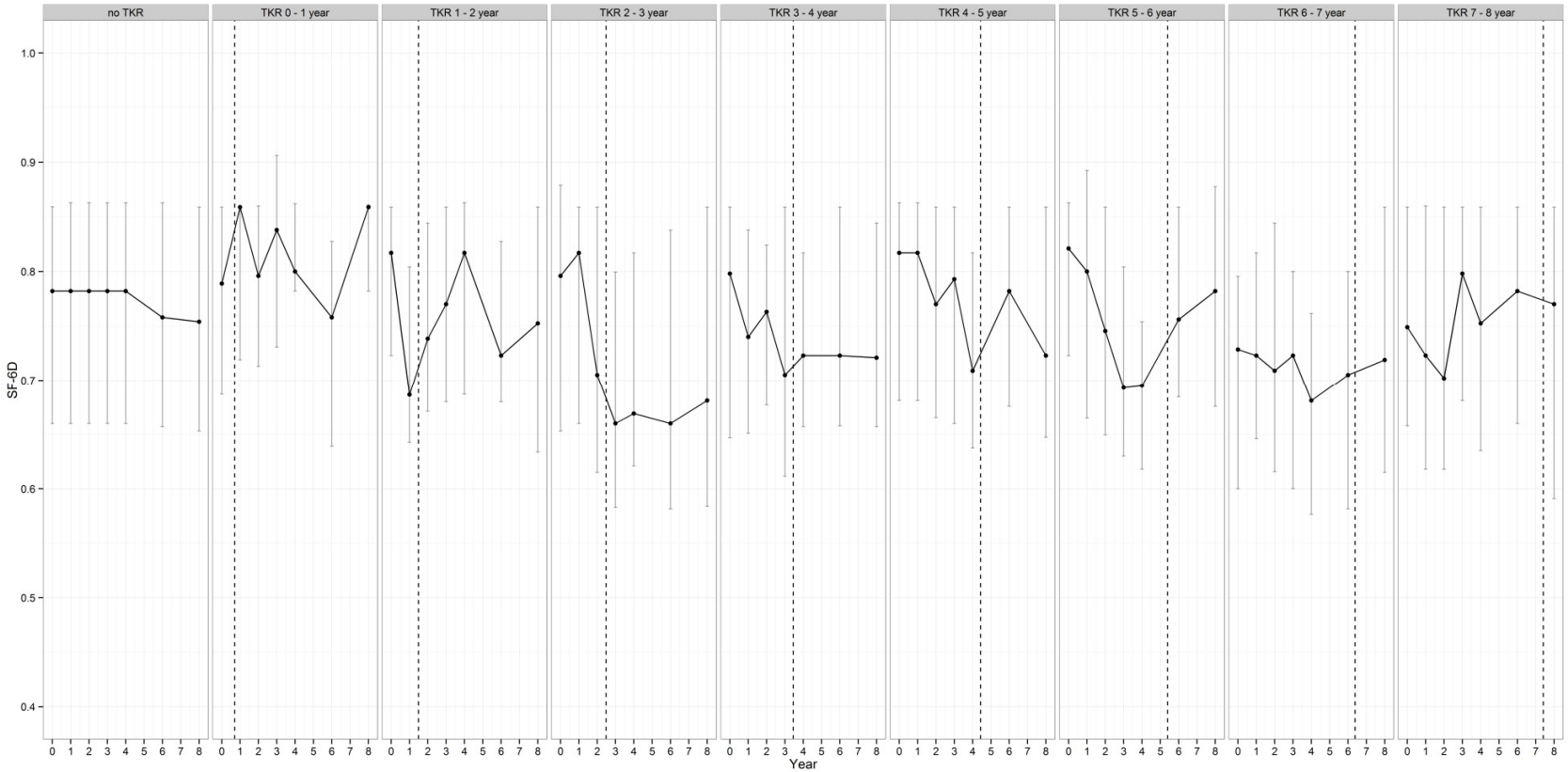


Figure D Western Ontario and McMaster Universities arthritis index (WOMAC) total scores within 8-year follow-up for 1,327 Osteoarthritis Initiative (OAI) participants with knee osteoarthritis at baseline who had no total knee replacement (TKR) *v* who underwent TKR. Median WOMAC scores and interquartile ranges are shown. The dotted lines indicate the median times to TKR in each group

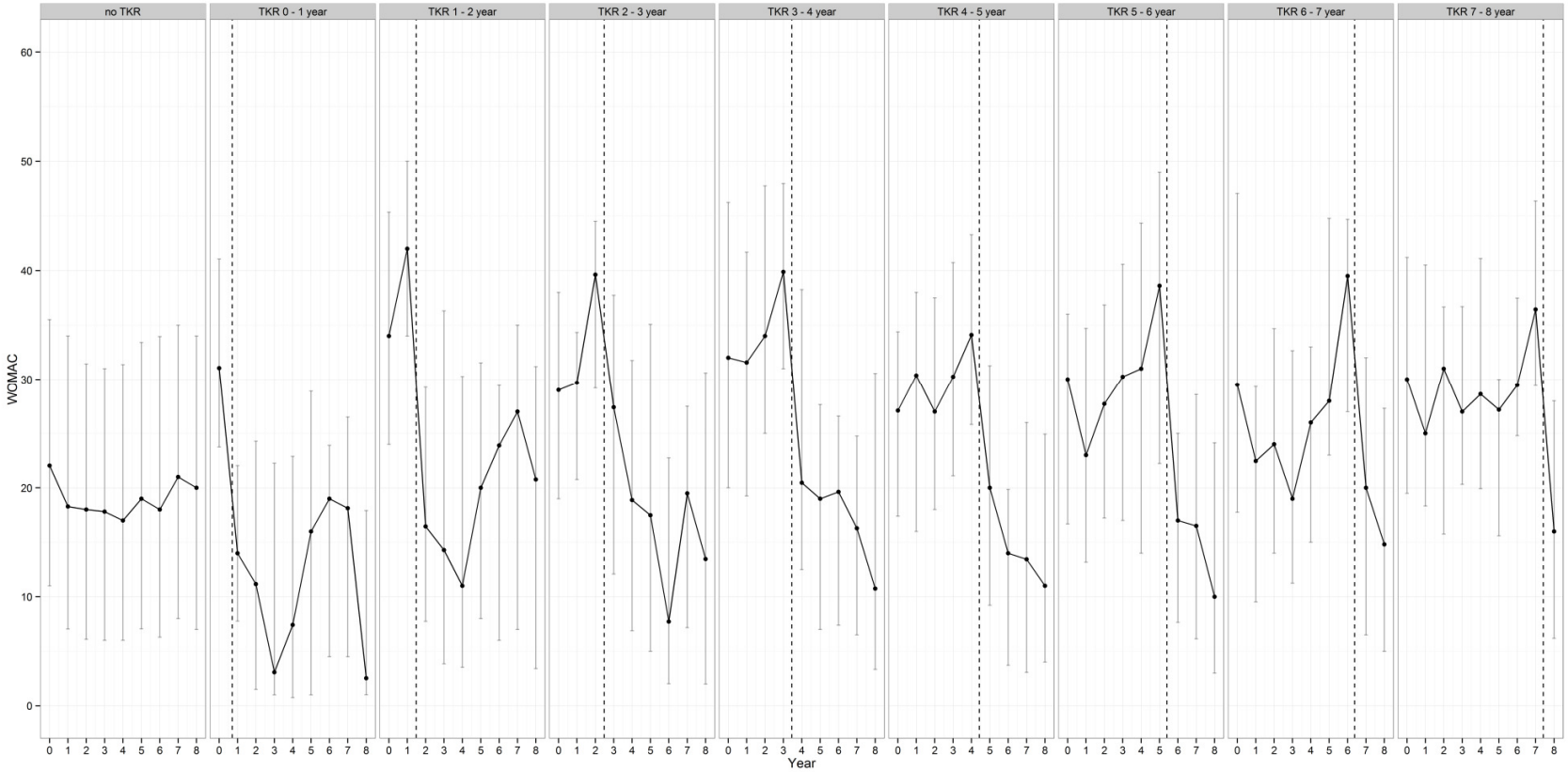


Figure E Knee injury and osteoarthritis outcome score (KOOS) quality-of-life subscale values within 8-year follow-up for 1,327 Osteoarthritis Initiative (OAI) participants with knee osteoarthritis at baseline who had no total knee replacement (TKR) *v* who underwent TKR. Median KOOS quality-of-life scores and interquartile ranges are shown. The dotted lines indicate the median times to TKR in each group

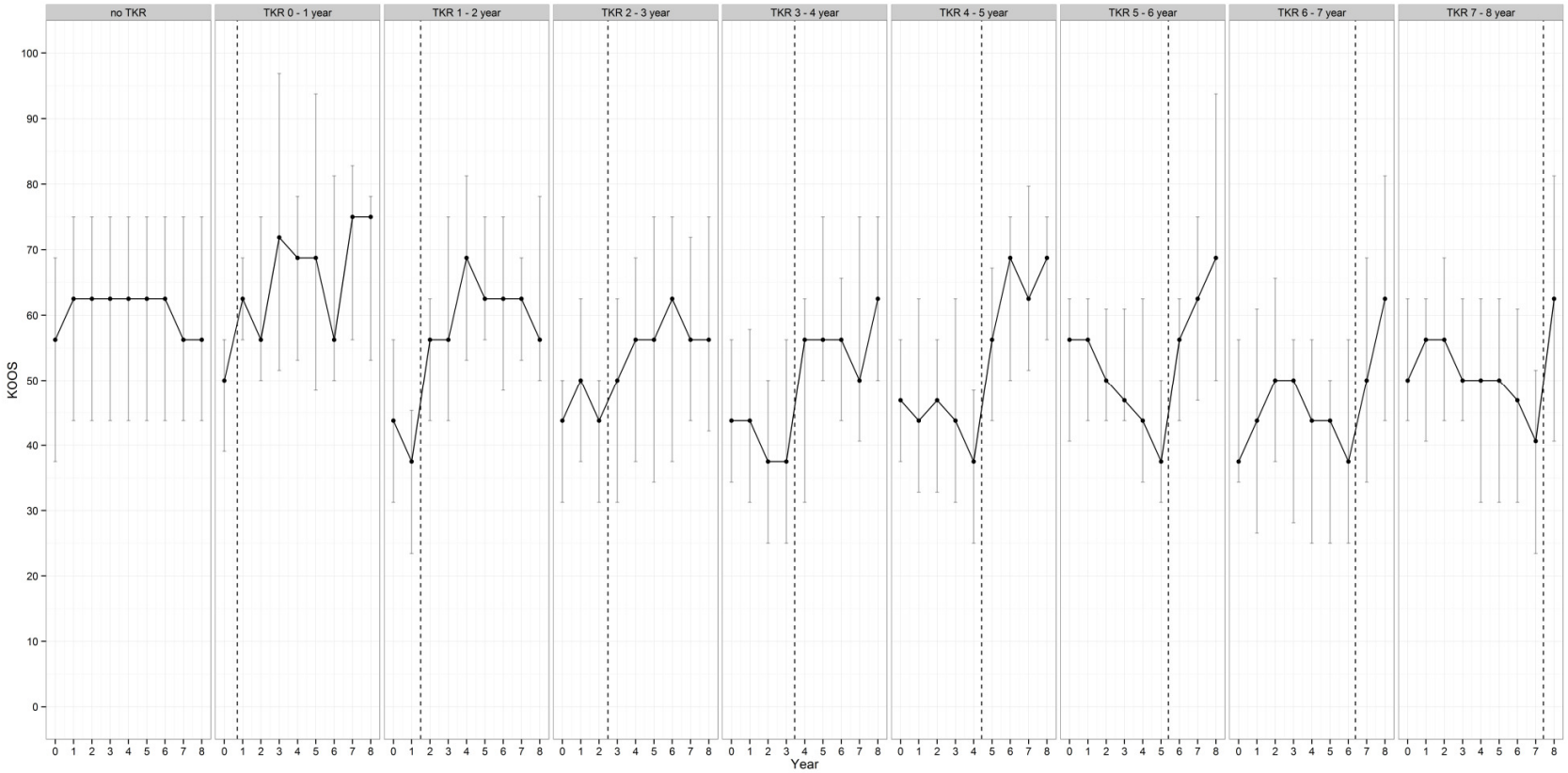


Figure F Self-reported use of osteoarthritis (OA) pain medication within 8-year follow-up for 1,327 Osteoarthritis Initiative (OAI) participants with knee osteoarthritis at baseline who had no total knee replacement (TKR) *v* who underwent TKR. Proportions of use of osteoarthritis pain medication are shown. The dotted lines indicate the median times to TKR in each group

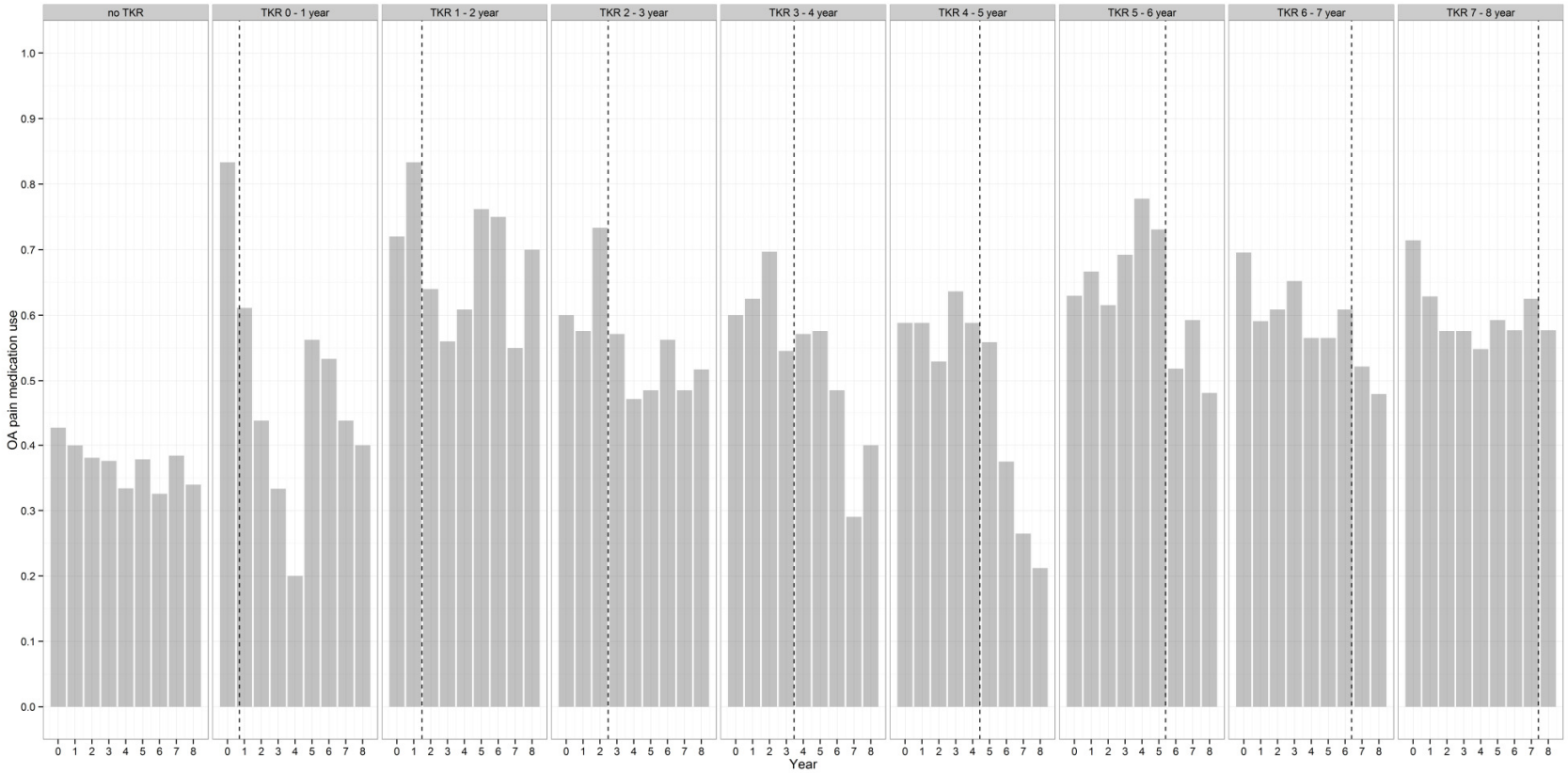


Figure G Self-reported use of non-surgical, non-pharmacological treatment within 8-year follow-up for 1,327 Osteoarthritis Initiative (OAI) participants with knee osteoarthritis at baseline who had no total knee replacement (TKR) *v* who underwent TKR. Proportions of use of non-surgical, non-pharmacological treatment are shown. The dotted lines indicate the median times to TKR in each group. No outcome data were available at 1, 3, 5, 6, and 7 year follow-up

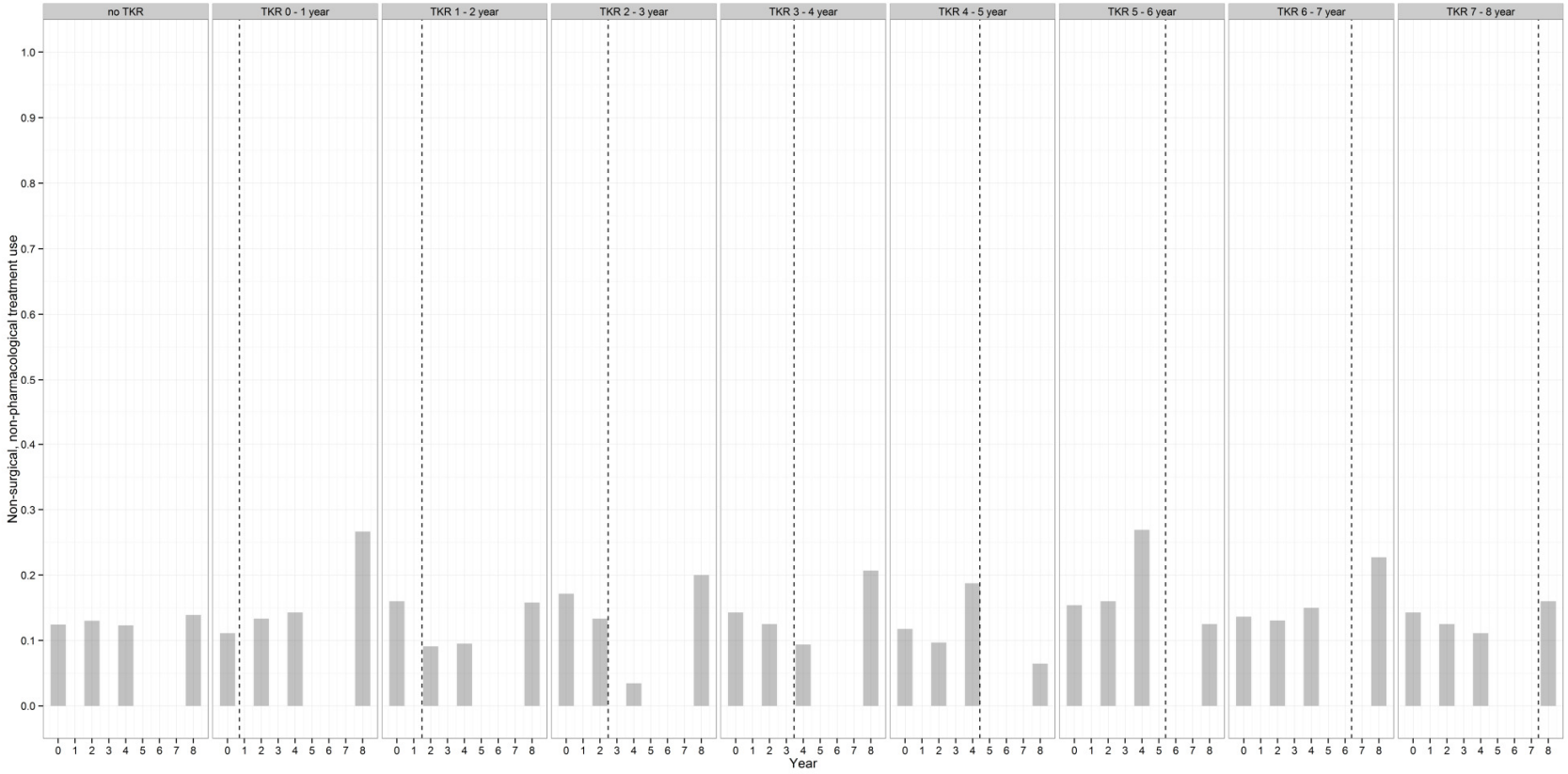


Figure H Self-reported work days missed in the last 3 months within 8-year follow-up for 819 employed Osteoarthritis Initiative (OAI) participants with knee osteoarthritis at baseline who had no total knee replacement (TKR) *v* who underwent TKR. The mean number of work days lost is shown to represent the potential impact on costs. The dotted lines indicate the median times to TKR in each group. No outcome data were available at 5 and 7 year follow-up

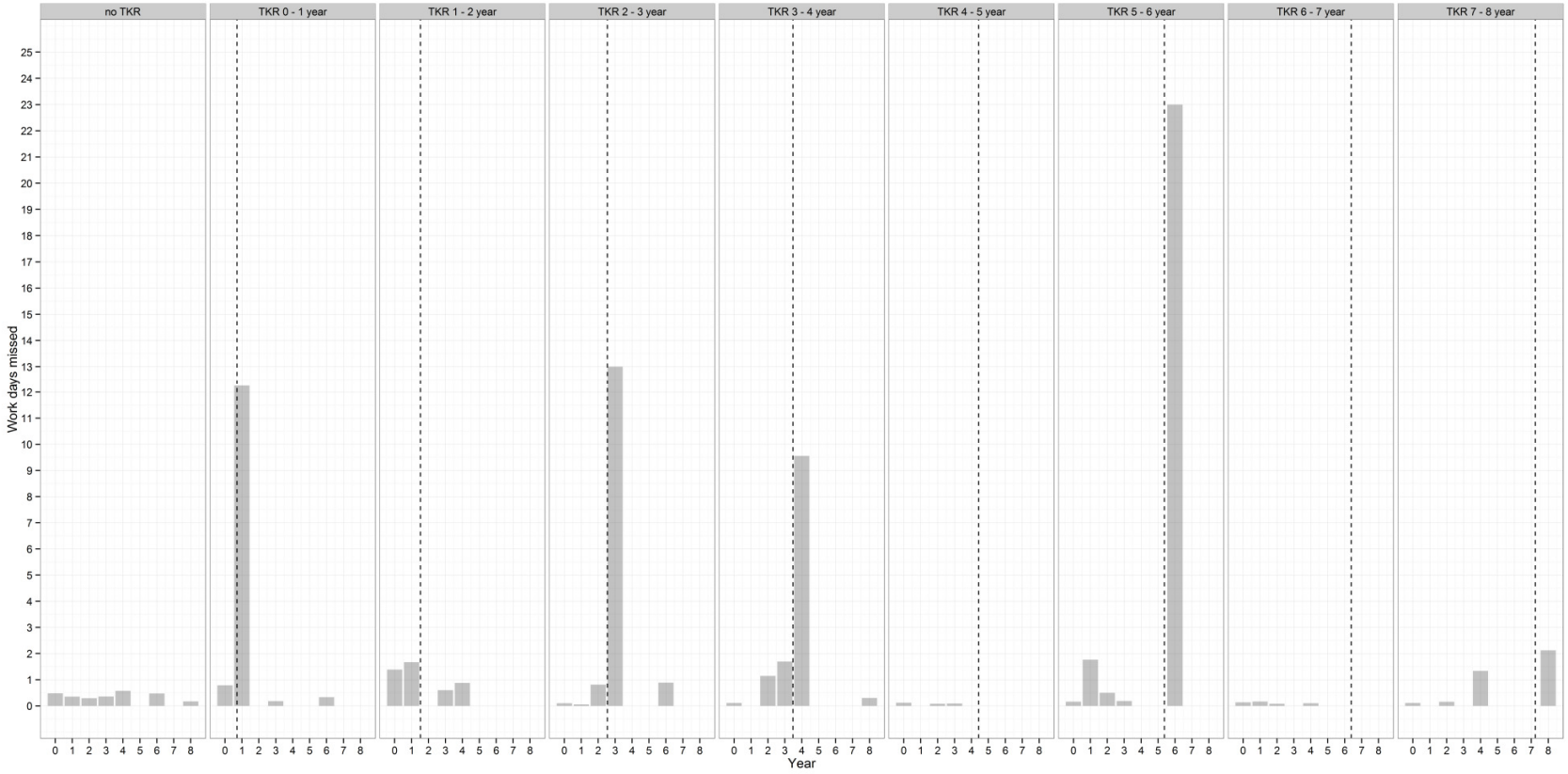


Figure I Average SF-12 physical component summary (PCS) over time according to each scenario as simulated by the Knee OSteoarthritis MicrOSimulation (KOSMOS) model for 1,327 Osteoarthritis Initiative (OAI) participants with knee osteoarthritis at baseline. The mean value at each year was calculated by averaging outcomes of tracker variables in those still alive at the end of each model cycle. The observed trend is therefore the result of the modelled change of SF-12 PCS over time and survival selection

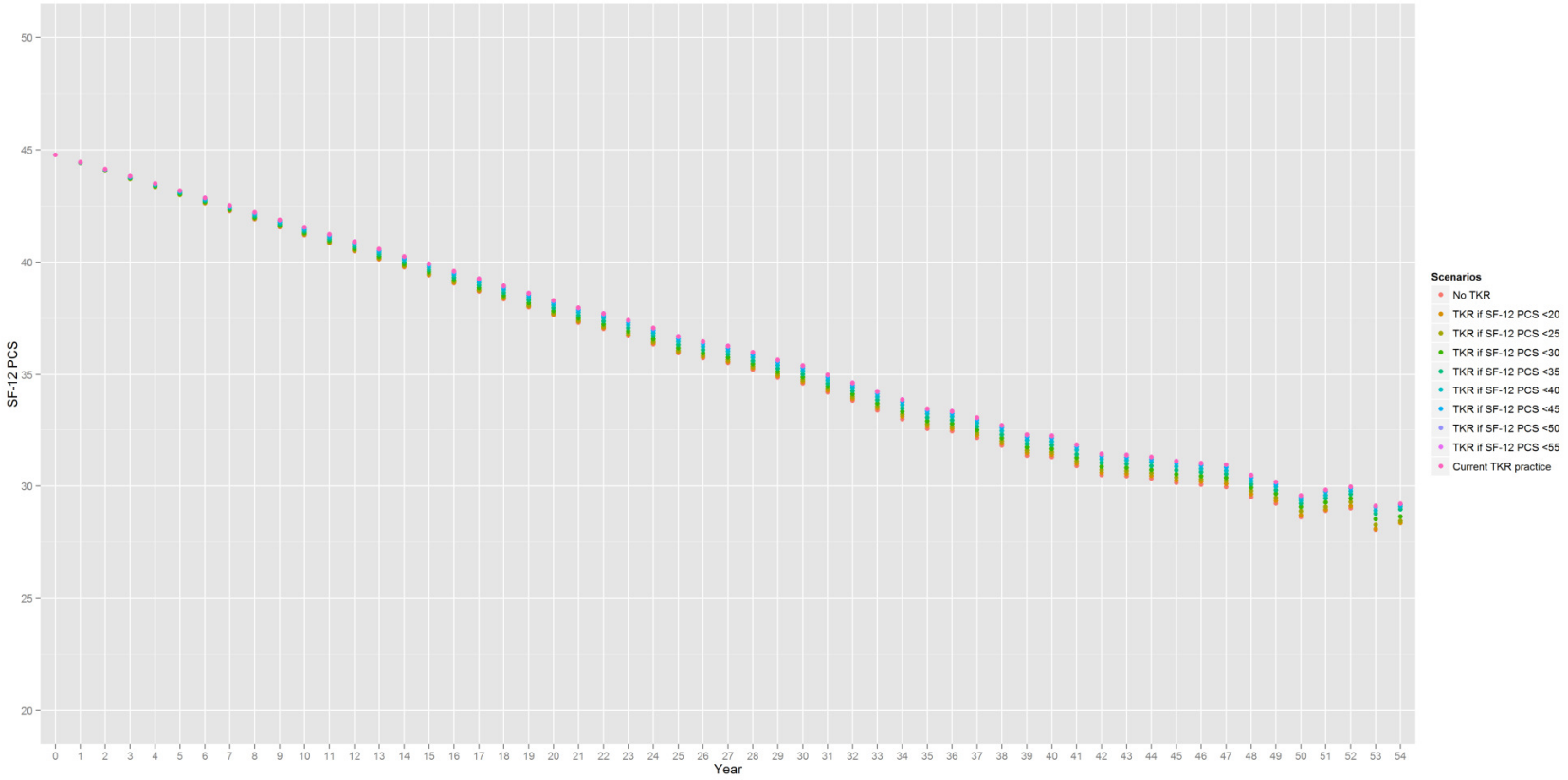


Figure J Average SF-12 mental component summary (MCS) over time according to each scenario as simulated by the Knee OSteoarthritis MicrOSimulation (KOSMOS) model for 1,327 Osteoarthritis Initiative (OAI) participants with knee osteoarthritis at baseline. The mean value at each year was calculated by averaging outcomes of tracker variables in those still alive at the end of each model cycle. The observed trend is therefore the result of the modelled change of SF-12 MCS over time and survival selection

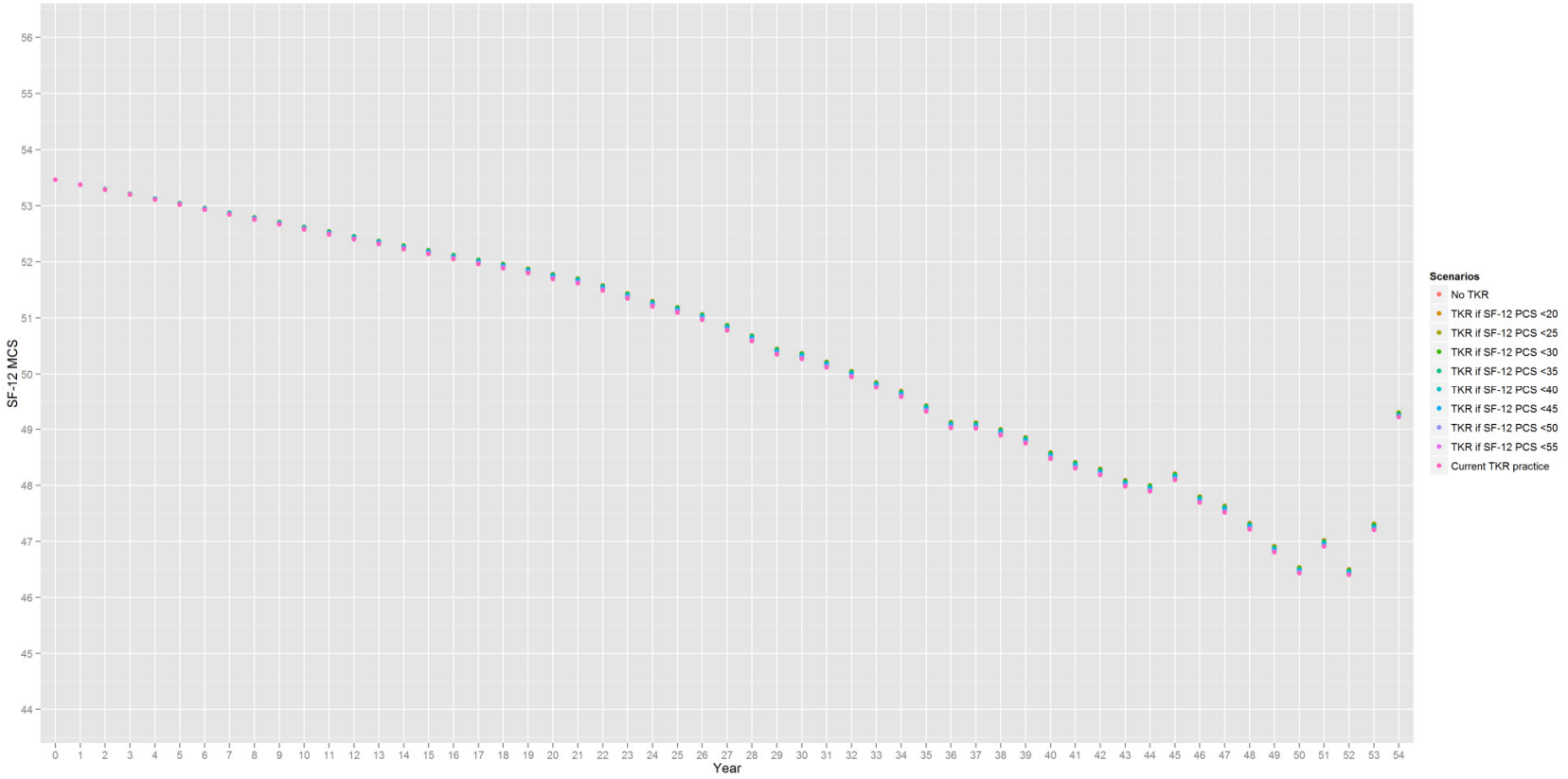


Figure K Average SF-6D over time according to each scenario as simulated by the Knee OSteoarthritis MicrOSimulation (KOSMOS) model for 1,327 Osteoarthritis Initiative (OAI) participants with knee osteoarthritis at baseline. The mean value at each year was calculated by averaging outcomes of tracker variables in those still alive at the end of each model cycle. The mean value at each year was calculated by averaging outcomes of tracker variables in those still alive at the end of each model cycle. The observed trend is therefore the result of the modelled change of SF-6D over time and survival selection

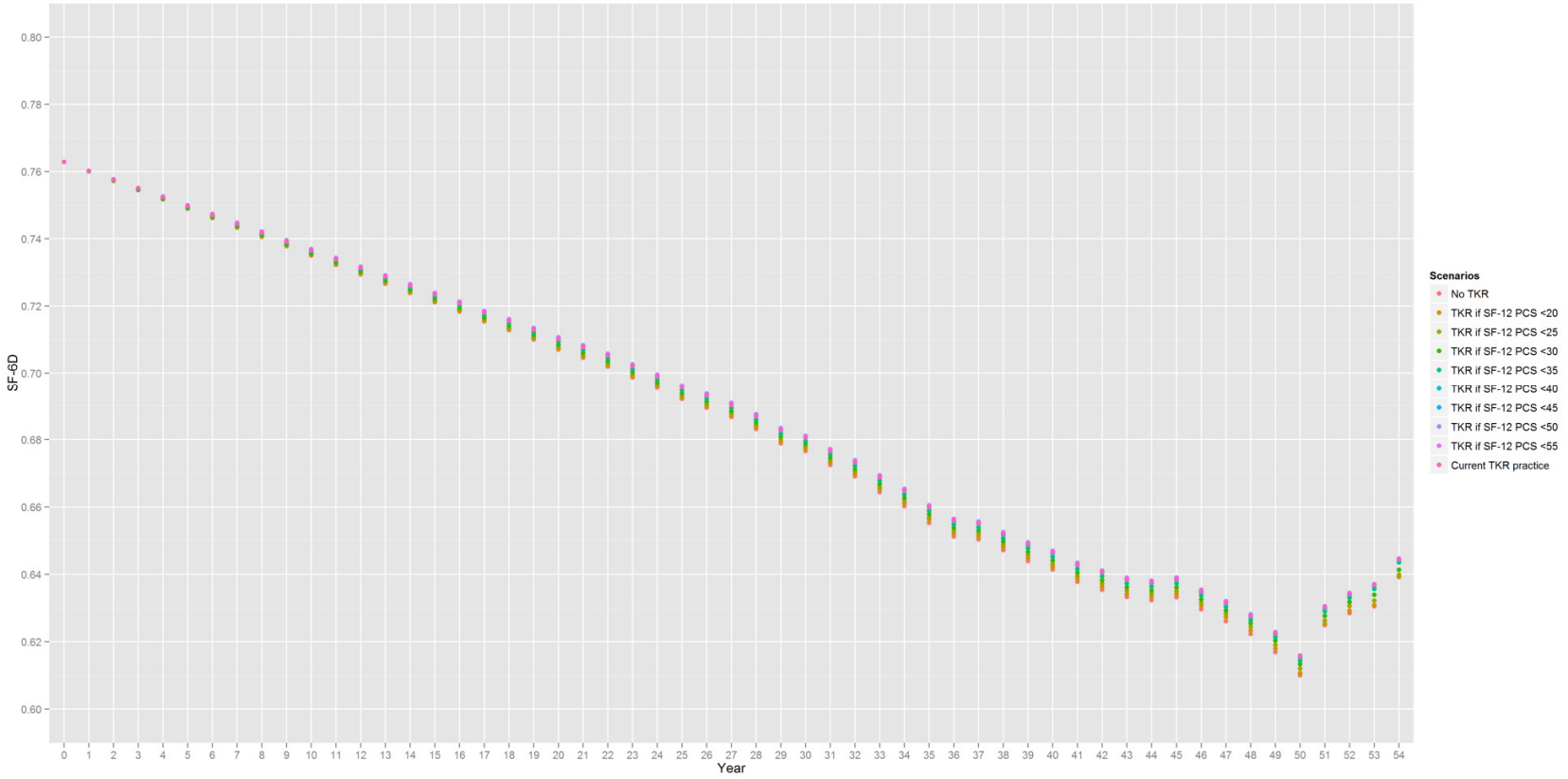


Figure L Average use of osteoarthritis pain medication over time according to each scenario as simulated by the Knee OSteoarthritis MicrOSimulation (KOSMOS) model for 1,327 Osteoarthritis Initiative (OAI) participants with knee osteoarthritis at baseline. The mean proportion at each year was calculated by averaging outcomes of tracker variables in those still alive at the end of each model cycle. The observed trend is therefore the result of the modelled change of osteoarthritis pain medication use over time and survival selection

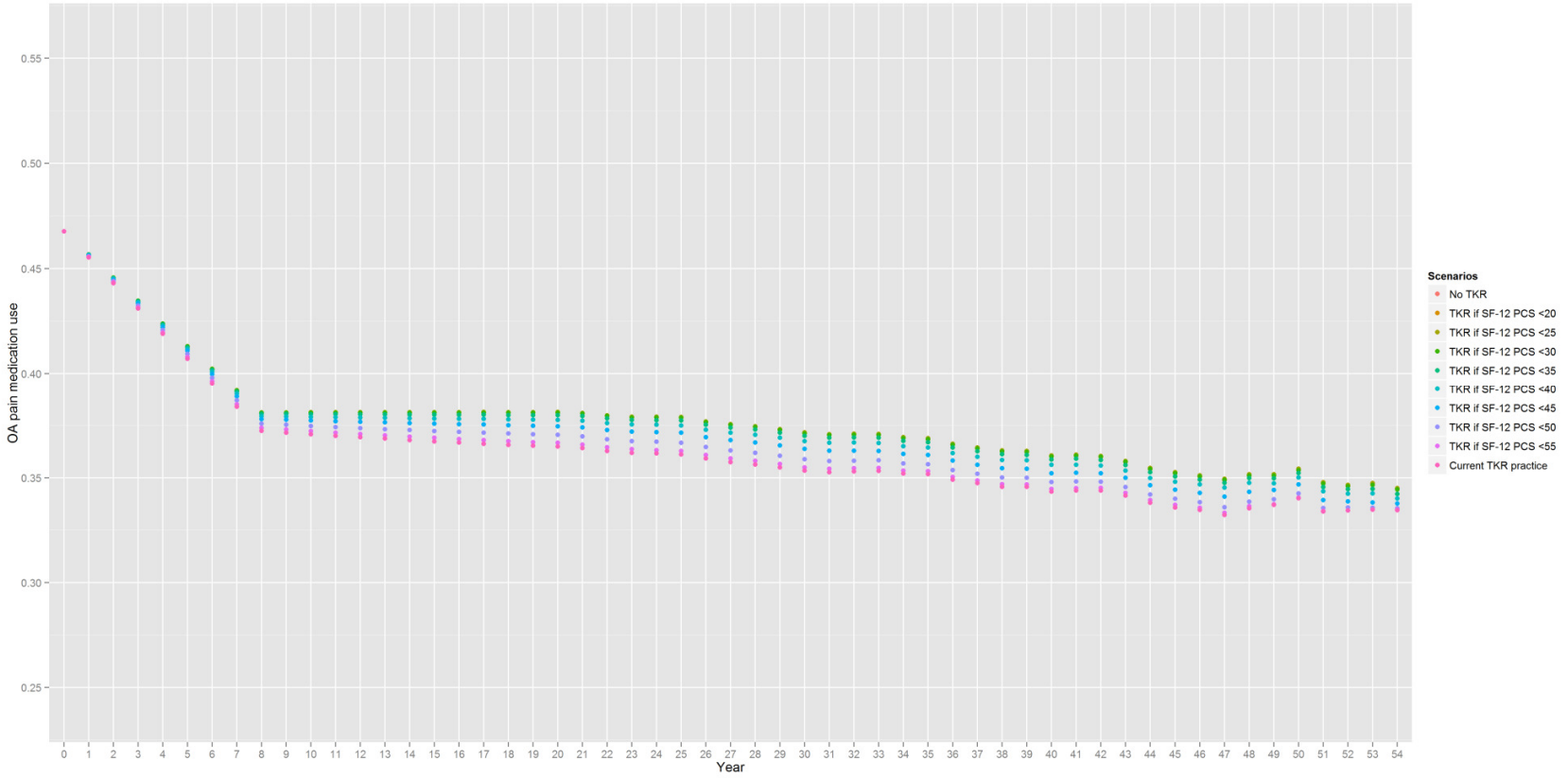


Figure M Average use of non-surgical, non-pharmacological treatment over time according to each scenario as simulated by the Knee OSteoarthritis MicrOSimulation (KOSMOS) model for 1,327 Osteoarthritis Initiative (OAI) participants with knee osteoarthritis at baseline. The mean proportion at each year was calculated by averaging outcomes of tracker variables in those still alive at the end of each model cycle. The observed trend is therefore the result of the modelled change of non-pharmacological treatment use over time and survival selection

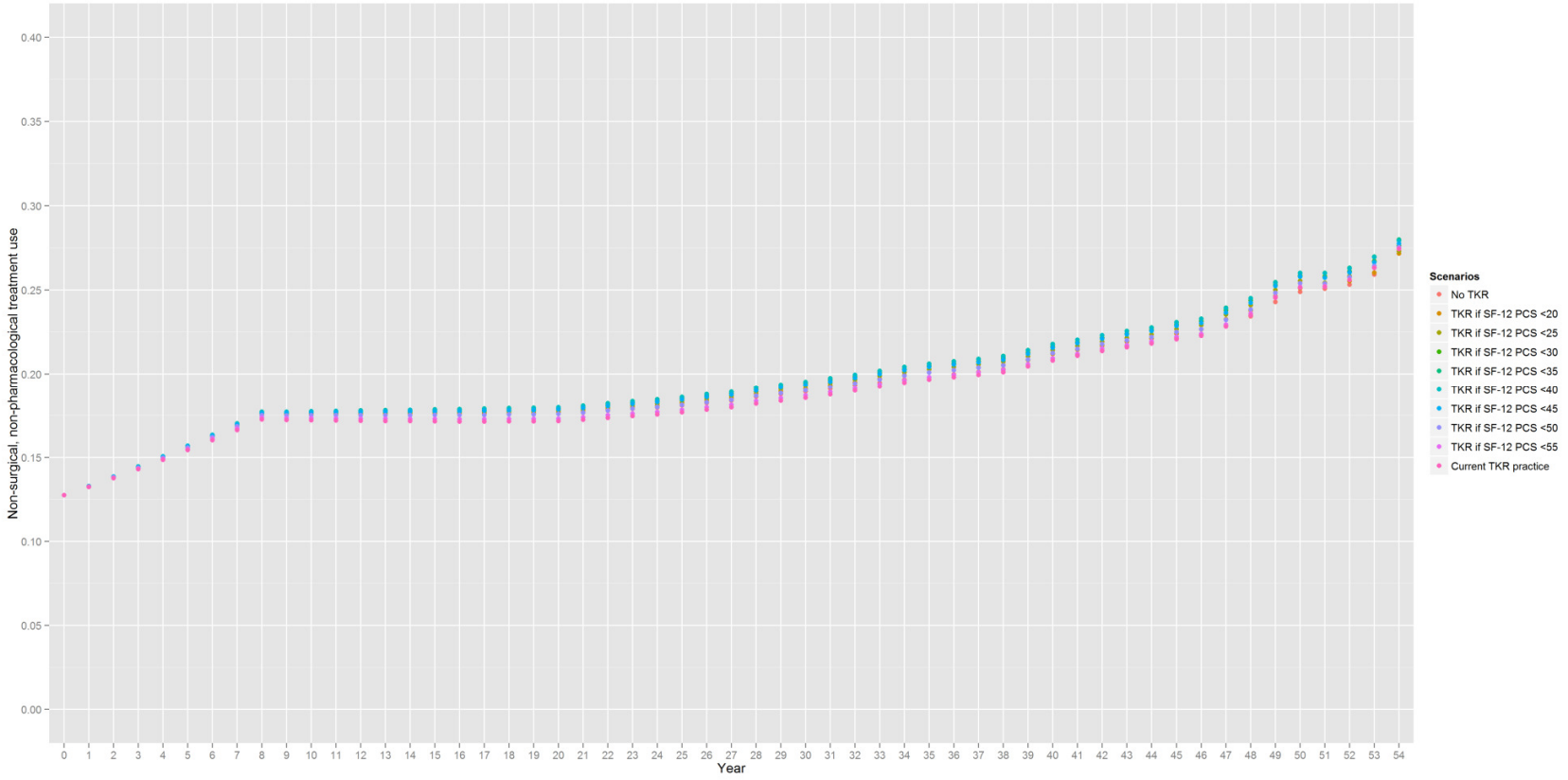
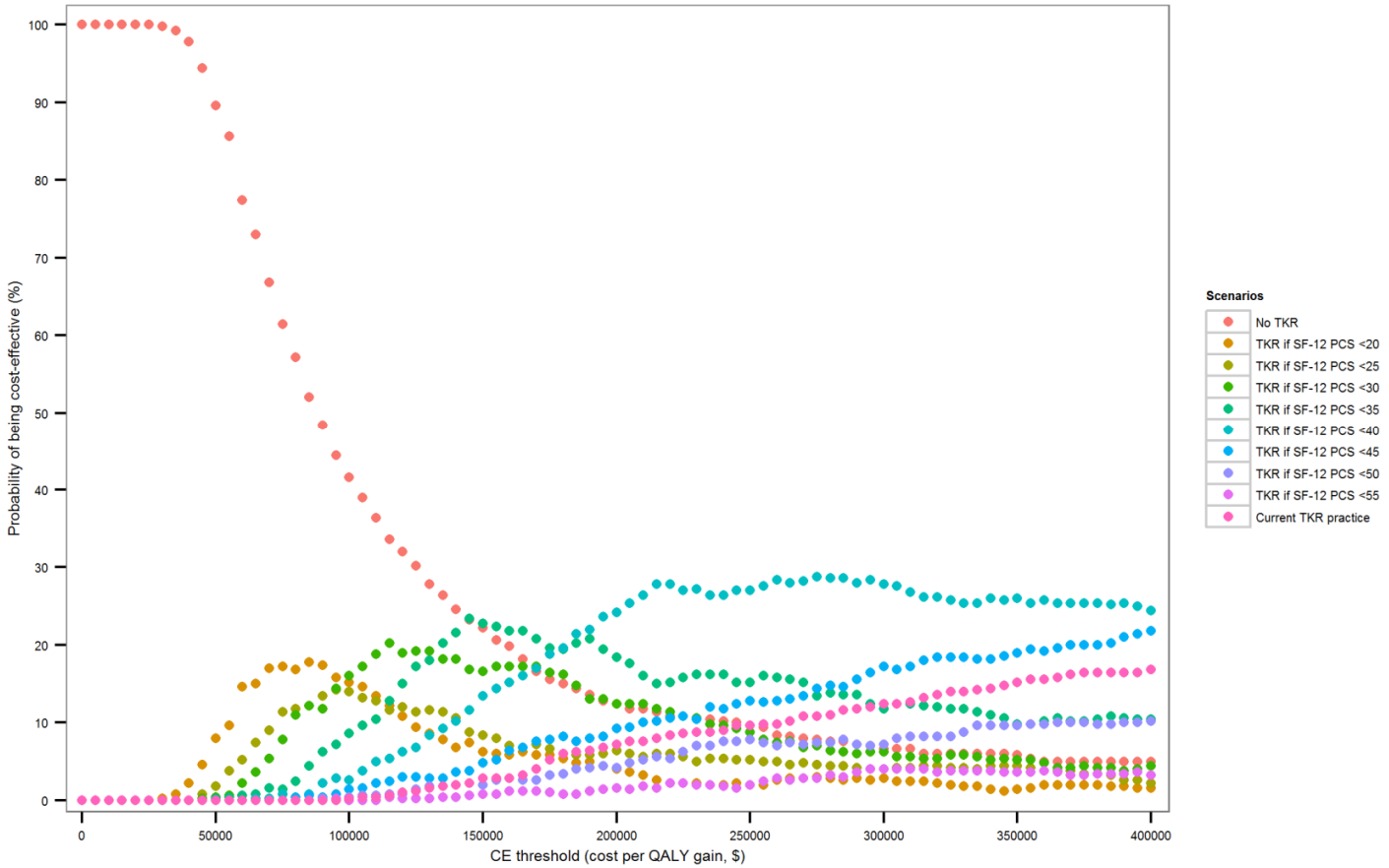


Figure N Cost-effectiveness acceptability curves for different total knee replacement (TKR) scenarios according to SF-12 physical component summary (PCS) levels, showing the certainty with which each scenario is the most cost-effective by varying the cost-effectiveness threshold. Probabilities of being cost-effective were calculated using 500 bootstrap datasets for simulations of 1,327 Osteoarthritis Initiative (OAI) participants with knee osteoarthritis at baseline. At each chosen cost-effectiveness (CE) threshold, the scenarios' probabilities of being cost-effective add up to 100%



.