

SUPPLEMENTAL FIGURES AND TABLES

Supplemental Table 1. Transition probabilities applied for the coronary heart disease cohort health states

| Patient | Tp1 | Tp2 | Tp3 | Tp4 | Tp5 |
|--------------------------------|-------|------|--------|--------|--------|
| Current smokers | | | | | |
| Males 35 to 64 years old | 0.61% | 3.9% | 0.030% | 0.026% | 0.005% |
| Males 65 years old and above | 3.11% | 3.9% | 0.065% | 2.247% | 0.041% |
| Females 35 to 64 years old | 0.54% | 3.9% | 0.030% | 0.019% | 0.005% |
| Females 65 years old and above | 3.22% | 3.9% | 0.247% | 9.500% | 0.024% |
| Former smokers | | | | | |
| Males 35 to 64 years old | 0.37% | 2.0% | 0.030% | 0.036% | 0.005% |
| Males 65 years old and above | 2.49% | 2.0% | 0.025% | 1.623% | 0.023% |
| Females 35 to 64 years old | 0.24% | 2.0% | 0.030% | 0.019% | 0.005% |
| Females 65 years old and above | 2.65% | 2.0% | 0.095% | 6.874% | 0.012% |

Abbreviations: Tp- transition probability.

Supplemental Table 2. Transition probabilities applied for the stroke cohort health states

| Patient | Tp1 | Tp2 | Tp3 | Tp4 | Tp5 |
|--------------------------------|-------|-------|--------|--------|--------|
| Current smokers | | | | | |
| Males 35 to 64 years old | 0.35% | 0.81% | 0.030% | 0.026% | 0.005% |
| Males 65 years old and above | 0.93% | 4.15% | 0.065% | 2.247% | 0.041% |
| Females 35 to 64 years old | 2.71% | 0.72% | 0.030% | 0.019% | 0.005% |
| Females 65 years old and above | 0.89% | 4.29% | 0.247% | 9.500% | 0.024% |
| Former smokers | | | | | |
| Males 35 to 64 years old | 0.15% | 0.50% | 0.030% | 0.036% | 0.005% |
| Males 65 years old and above | 0.62% | 3.32% | 0.025% | 1.623% | 0.023% |
| Females 35 to 64 years old | 1.07% | 0.32% | 0.030% | 0.019% | 0.005% |
| Females 65 years old and above | 0.67% | 3.53% | 0.095% | 6.874% | 0.012% |

Abbreviations: Tp- transition probability.

Supplemental Table 3. Key Markov model input parameters

| Variable | Mean | Standard error | Distribution for probability sensitivity analysis | Reference/Source |
|--|---------|----------------|---|--|
| Discounting | 0.03 | - | | Sanders 2016 |
| <u>Clinical parameters</u> | | | | |
| Smoking quit rates at 6 months | | | | |
| Usual care | 0.05 | 0.02 | Beta | Expert opinion |
| Smoking cessation clinic | 0.14 | 0.06 | Beta | Concurrent cohort study ¹ |
| Relapse rates post quitting | | | | |
| Up to 5 years | 0.06 | 0.02 | Beta | Wetter 2004 |
| 6 to 10 years | 0.02 | 0.02 | Beta | Krall 2002 |
| 11 years and over | 0.01 | 0.02 | Beta | Krall 2002 |
| <u>Cost parameters (in USD)</u> | | | | |
| Usual care | 0 | - | Gamma | Expert opinion |
| Smoking cessation clinic | 60.16 | - | | |
| Cost of medication | 56.96 | - | Gamma | Concurrent cohort study ¹ |
| Cost of general practitioner visits | 3.20 | - | Gamma | Concurrent cohort study ¹ |
| Acute CHD | | | | |
| First year | 4252.63 | | | |
| Direct medical cost | 4141.94 | 633.97 | Gamma | Anukoolsawat 2006, Choosakulchart 2013 |
| Direct non-medical cost | 110.70 | 16.94 | Gamma | Anukoolsawat 2006, Choosakulchart 2013 |
| Subsequent years | 604.67 | | | |
| Direct medical cost | 444.57 | 68.05 | Gamma | Anukoolsawat 2006, Choosakulchart 2013 |
| Direct non-medical cost | 160.10 | 24.51 | Gamma | Anukoolsawat 2006, Choosakulchart 2013 |
| Stroke | | | | |

| Variable | Mean | Standard error | Distribution for probability sensitivity analysis | Reference/Source |
|--|---------|----------------|---|---|
| First year | 2882.33 | | | |
| Direct medical cost | 2189.70 | 335.16 | Gamma | Tamteerano (Statin CEA by HITAP) |
| Direct non-medical cost | 692.63 | 106.01 | Gamma | Riewpaiboon 2010, Expert opinion |
| Subsequent years | 531.60 | | | |
| Direct medical cost | 346.90 | 53.10 | Gamma | Tamteerano (Statin CEA by HITAP) |
| Direct non-medical cost | 184.70 | 28.27 | Gamma | Riewpaiboon 2010, Expert opinion |
| COPD | 2471.88 | | | |
| Direct medical cost | 2111.71 | 403.88 | Gamma | Thanaviratananich 2016 |
| Direct non-medical cost | 360.17 | 55.13 | Gamma | Riewpaiboon 2010, Expert opinion |
| Oral cancer | 3521.64 | | | |
| Direct medical cost | 2782.84 | 425.94 | Gamma | Weerapradits 2009 |
| Direct non-medical cost | 738.80 | 113.08 | Gamma | Riewpaiboon 2010, Expert opinion |
| Lung cancer | 6686.58 | | | |
| Direct medical cost | 6058.60 | 927.34 | Gamma | Thongprasert 2017 |
| Direct non-medical cost | 627.98 | 96.12 | Gamma | Riewpaiboon 2010, Data collection from Maharajnakorn Hosp, Chiang Mai |
| <u>Health utilities</u> | | | | |
| CHD | 0.76 | 0.02 | Beta | Annemans 2009 |
| Stroke | | | | |
| First year | 0.74 | 0.09 | Beta | Annemans 2009 |
| Subsequent years | 0.15 | 0.02 | Beta | Annemans 2009 |
| COPD | 0.76 | 0.1 | Beta | Annemans 2009 |
| Oral cancer | 0.88 | 0.02 | Beta | Downer 1997 |
| Lung cancer | 0.66 | 0.02 | Beta | Chouaid 2013 |
| <u>Incident morbidity risks - Incidence</u> | | | | |
| Current smokers | | | | |
| CHD | | | | |

| Variable | Mean | Standard error | Distribution for probability sensitivity analysis | Reference/Source |
|----------------|--------|----------------|---|------------------|
| Male (35-64) | 0.61% | - | - | Friedman 2000 |
| (65+) | 3.11% | - | - | |
| Female (34-64) | 0.54% | - | - | |
| (65+) | 3.22% | - | - | |
| Stroke | | | | |
| Male (35-64) | 0.35% | - | - | Allender 2008 |
| (65+) | 0.93% | - | - | |
| Female (34-64) | 2.71% | - | - | |
| (65+) | 0.89% | - | - | |
| COPD | | | | |
| Male (35-64) | 0.03% | - | - | Allender 2008 |
| (65+) | 2.25% | - | - | |
| Female (34-64) | 0.02% | - | - | |
| (65+) | 9.50% | - | - | |
| Lung cancer | | | | |
| Male (35-64) | 0.03% | - | - | Thun 2000 |
| (65+) | 0.06% | - | - | |
| Female (34-64) | 0.03% | - | - | |
| (65+) | 0.25% | - | - | |
| Oral cancer | | | | |
| Male (35-64) | 0.005% | - | - | Ide 2008 |
| (65+) | 0.041% | - | - | |
| Female (34-64) | 0.005% | - | - | |
| (65+) | 0.024% | - | - | |
| Former smokers | | | | |
| CHD | | | | |
| | | | | Friedman 2000 |
| Male (35-64) | 0.37% | - | - | |
| (65+) | 2.49% | - | - | |
| Female (34-64) | 0.24% | - | - | |
| (65+) | 2.65% | - | - | |
| Stroke | | | | |
| Male (35-64) | 0.15% | - | - | Allender 2008 |
| (65+) | 0.62% | - | - | |
| Female (34-64) | 1.07% | - | - | |
| (65+) | 0.67% | - | - | |

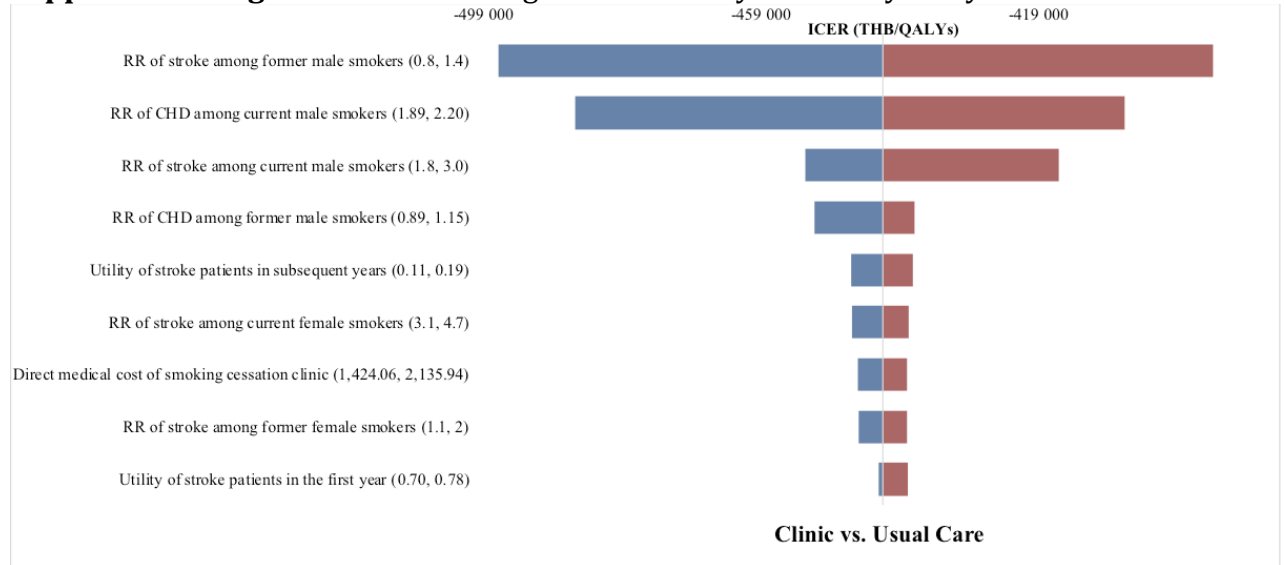
| Variable | Mean | Standard error | Distribution for probability sensitivity analysis | Reference/Source |
|--|--------|----------------|---|------------------|
| COPD | | | | Allender 2008 |
| Male (35-64) | 0.03% | - | - | |
| (65+) | 1.62% | - | - | |
| Female (34-64) | 0.02% | - | - | |
| (65+) | 6.87% | - | - | |
| Lung cancer | | | | Thun 2000 |
| Male (35-64) | 0.03% | - | - | |
| (65+) | 0.03% | - | - | |
| Female (34-64) | 0.03% | - | - | |
| (65+) | 0.09% | - | - | |
| Oral cancer | | | | Ide 2008 |
| Male (35-64) | 0.005% | - | - | |
| (65+) | 0.023% | - | - | |
| Female (34-64) | 0.005% | - | - | |
| (65+) | 0.012% | - | - | |
| <u>Incident mortality risks – Relative risks (Standard error)</u> | | | | |
| Current smokers | | | | |
| CHD | | | | Friedman 2000 |
| Male | 2.0 | 0.04 | - | |
| Female | 2.2 | 0.04 | - | |
| Stroke | | | | Friedman 2000 |
| Male (35-64) | 2.4 | 0.13 | - | |
| (65+) | 1.5 | 0.10 | - | |
| Female (34-64) | 3.8 | 0.11 | - | |
| (65+) | 1.6 | 0.08 | - | |
| COPD | | | | Friedman 2000 |
| Male | 10.8 | 0.13 | - | |
| Female | 12.3 | 0.11 | - | |
| Lung cancer | | | | Ando 2003 |
| Male | 4.5 | 0.19 | - | |
| Female | 3.6 | 0.24 | - | |
| Oral cancer | | | | Ide 2008 |
| Male | 2.6 | 0.49 | - | |
| Female | 7.9 | 0.67 | - | |
| Former smokers | | | | |

| Variable | Mean | Standard error | Distribution for probability sensitivity analysis | Reference/Source |
|--------------------|------|----------------|---|------------------|
| CHD | | | | Friedman 2000 |
| Male | 1.0 | 0.07 | - | |
| Female | 1.5 | 0.05 | - | |
| Stroke | | | | Friedman 2000 |
| Male (35-64) | 1.0 | 0.14 | - | |
| (65+) | 1.0 | 0.07 | - | |
| Female (34-64) | 1.5 | 0.15 | - | |
| (65+) | 1.2 | 0.09 | - | |
| COPD | | | | Friedman 2000 |
| Male | 7.8 | 0.12 | - | |
| Female | 8.9 | 0.11 | - | |
| Lung cancer | | | | Ando 2003 |
| Male | 2.4 | 0.20 | - | |
| Female | 2.6 | 0.42 | - | |
| Oral cancer | | | | Ide 2008 |
| Male | 2.6 | 0.49 | - | |
| Female | 7.9 | 0.67 | - | |

¹ Real-World Assessment of the Thai Multidisciplinary Smoking Cessation Program on Clinical Outcomes:
A Multicentre Prospective Observational Study

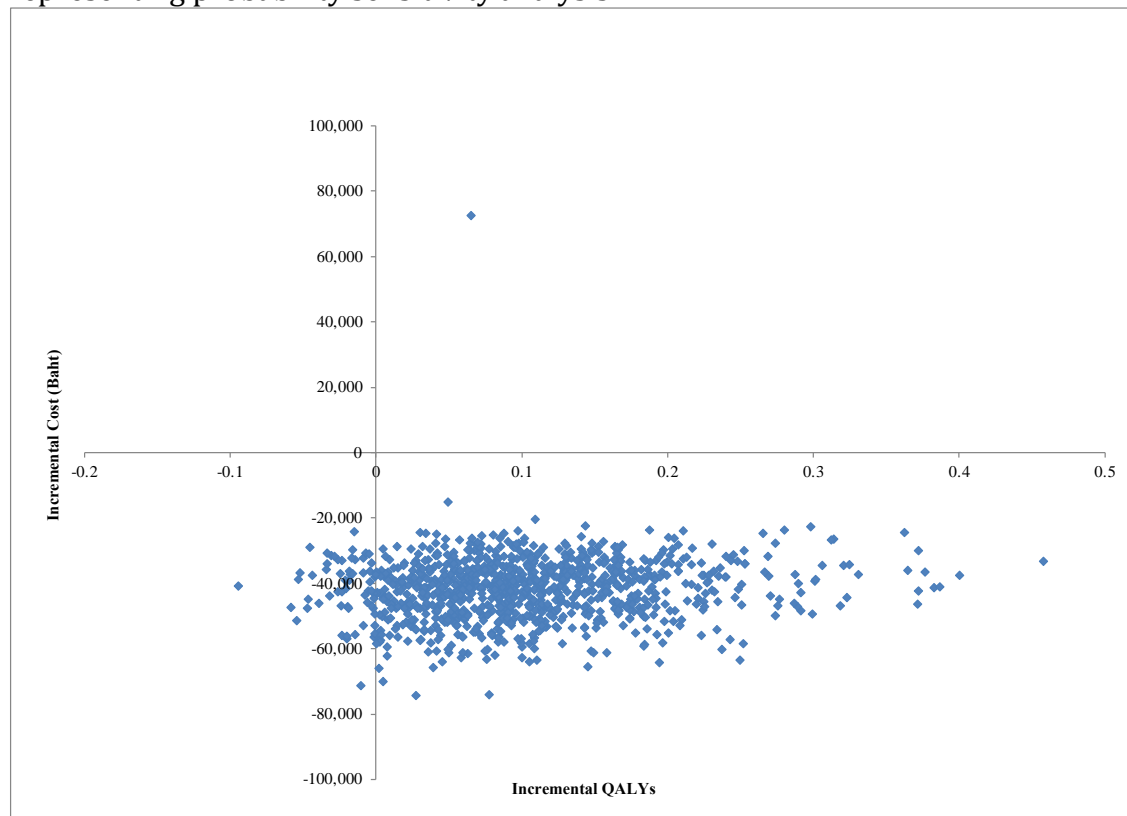
*COPD: Chronic obstructive pulmonary disease; CHD: Coronary heart disease

Supplemental Figure 1. Tornado diagram of one-way sensitivity analysis



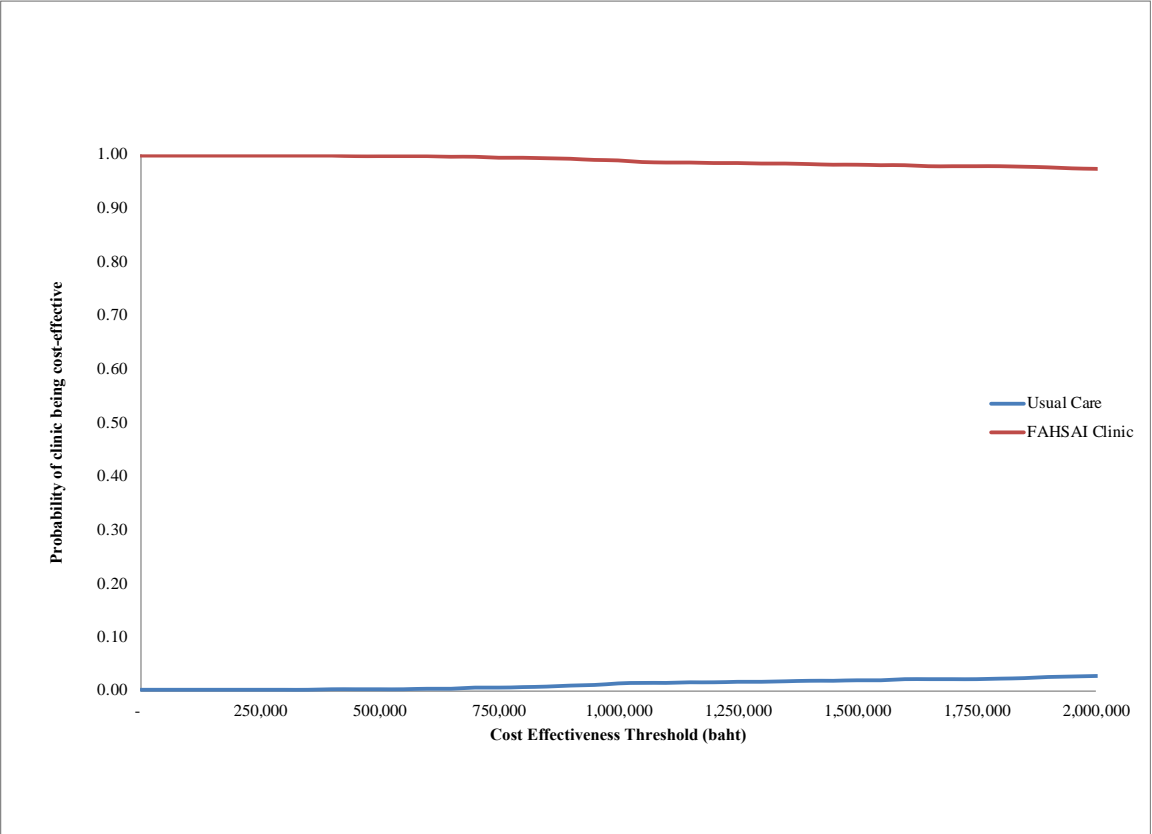
Abbreviations: CHD – coronary heart disease; RR- relative risk; ICER – incremental cost-effectiveness ratio; THB- Thai Baht; QALY- quality-adjusted life year; Clinic- The SMART Quit Clinic Program.

Supplemental Figure 2. Cost-effectiveness plane for the FAHSAI clinic in Thailand representing probability sensitivity analysis



Abbreviations: QALY- quality-adjusted life year.

Supplemental Figure 3. Cost-effectiveness acceptability curve, FAHSAI clinic vs. usual care in Thailand



Abbreviations: FAHSAI Clinic- The SMART Quit Clinic Program.

Appendix 1. CHEERS 2022 Checklist

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| Time horizon | 9 | 2.1 - Overall Description |
| Discount rate | 10 | 2.1 - Overall Description |
| Selection of outcomes | 11 | 2.3 - Input Parameters |
| Measurement of outcomes | 12 | 2.3 - Input Parameters |
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