Online Appendix 6.

The Transferability of Economic Evaluations Across Settings: A Decision Framework for Identifying Locally-Relevant Best- and Wasted-Buys

6A: Search strategy for reviewing past literature on transferability

Please note that our search was not intended to be a comprehensive systematic review. The primary purpose was to identify key papers and summarize major progress in this field. Two chapter authors (David Daeho Kim, Rachel Lauren Bacon) jointly searched Google Scholar and PubMed using the following search terms and restricting for English-language publications: "generalizable," or "generalizability," or "generalisable," or "generalisability," or "transferable," or "transferability," or "extrapolate," or "extrapolation," or "external validity," and paired with "health economics," or "health technology assessment," "economic evaluation," or "cost-effectiveness," or "cost-utility." Both authors worked in a consensus to review the abstracts of the results for relevant articles that specifically addressed methods for economic outcomes transferability across contexts and settings.

6B. Kenya's Decision Makers' Preference on Economic Evaluation Transferability Assessment (Adopted from the iDSI reference case)[1]

1) <u>Part I: Initial assessment of study design</u>

   a) Study perspective:

      i) Societal perspective preferred, but health care payer (or government) perspective is acceptable.

   b) Intervention and comparator(s):

      i) Intervention under consideration should be available in the local setting.

      ii) Intervention(s) currently offered to the population should be considered as a comparator.

      iii) Standard of care defined by local clinical guidelines is preferred as a base case comparator.

   c) Time horizon:

      i) Lifetime horizon strongly preferred, but results from shorter time horizon may also be considered with the caveat.

   d) Discounting:

      i) 3% annual discount rate for both costs and outcomes strongly preferred, but results using different discounting rates may also be considered with the caveat.

   e) Study quality:

      i) Poor quality of study, which can be assessed based on the published journal, adherence to the guidelines (e.g., iDSI reference case) may be excluded from further assessment.

2) <u>Step 2: Data transferability assessment</u>

   a) Local data on baseline risk is available for most cases. When not available, data from other countries with the similar disease profile can be acceptable.

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[1] iDSI reference case can be found via this link https://www.idsihealth.org/resource-items/idsi-reference-case-for-economic-evaluation/

b) Local unit costs/prices information is available

c) Local data on resource utilization is available

d) Assume treatment effects are transferable

e) Local participants for measuring health-state preference weight or the use of local valuating set preferred. Other measures or valuation sets can be used with the caveat.

6C. Case Study: Transferability Assessment Forms by Two Reviewers

Study 1: Goldman et al, 2006[2]

Reviewer A

Step 1: Initial assessment of study design			
Criteria	**Evaluation questions for each criterion**		**Decision Question:** Considering your evaluation for each criterion, is the original study warranted for further assessment?
	Q1: Is the listed study characteristic aligned with local decision-making context? (If 'No', go to Q2)	Q2: Is the original study still informative to the decision problem?	
Study Perspective	Yes	N/A: Yes on Q1, no answer required	
Intervention and its comparator(s)	Yes, but not specific enough: vague definitions of "prevention," "screening," "technological interventions," but no supporting definitions of what constitutes these	N/A: Yes on Q1, no answer required	**A. No, reject the foreign evidence** B. No, but the foreign evidence can be used with caution C. Yes, proceed to data transferability assessment
Time horizon	Yes: lifetime	N/A: Yes on Q1, no answer required	
Discounting	No: GH CEA Registry – could not determine	No	
Study quality	No: GH CEA Registry gave the study a low quality score that is unacceptable (3/7)	No	

Step 2: Data transferability assessment				
Major considerations	**Evaluation questions for each data input?**				**Decision Question:** Considering your evaluation for each criterion, is the original evidence transferable to your local setting?
	Q1: Are the original input data applied to the local setting? (If 'No', go to Q2)	Q2: Is local data on the specific input available? (If 'Yes', go to Q3 If 'No', go to Q4)	Q3: Is appropriate adjustment for local data input possible? (If 'No', go to Q4)	Q4: Is the data input used in the original study still informative to the local context?	
Baseline risk	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1	A. No, reject the foreign evidence B. No, but the foreign evidence can be used with caution C. Yes, but only after appropriate adjustment for local data input D. Yes, apply the foreign evidence as it is
Treatment effects	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1	
Unit costs/prices	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1	

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[2] Dana P Goldman and others, 'The Value of Elderly Disease Prevention', *Forum for Health Economics & Policy*, 9.2 (2006), https://doi.org/10.2202/1558-9544.1004

Resource utilization	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1
Health-state preference weight	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1

Reviewer B

Step 1: Initial assessment of study design			
Criteria	**Evaluation questions for each criterion**		**Decision Question:** Considering your evaluation for each criterion, is the original study warranted for further assessment?
	Q1: Is the listed study characteristic aligned with local decision-making context? (If 'No', go to Q2)	Q2: Is the original study still informative to the decision problem?	
Study Perspective	Yes	N/A: Yes on Q1, no answer required	
Intervention and its comparator(s)	No	No	**A. No, reject the foreign evidence**
Time horizon	Yes (lifetime)	N/A: Yes on Q1, no answer required	B. No, but the foreign evidence can be used with caution
Discounting	No	No	C. Yes, proceed to data transferability assessment
Study quality	No	No	

Step 2: Data transferability assessment					
Major considerations	**Evaluation questions for each data input?**				**Decision Question:** Considering your evaluation for each criterion, is the original evidence transferable to your local setting?
	Q1: Are the original input data applied to the local setting? (If 'No', go to Q2)	Q2: Is local data on the specific input available? (If 'Yes', go to Q3 If 'No', go to Q4)	Q3: Is appropriate adjustment for local data input possible? (If 'No', go to Q4)	Q4: Is the data input used in the original study still informative to the local context?	
Baseline risk	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1	A. No, reject the foreign evidence B. No, but the foreign evidence can be used with caution C. Yes, but only after appropriate adjustment for local data input D. Yes, apply the foreign evidence as it is
Treatment effects	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1	
Unit costs/prices	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1	

Resource utilization	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1
Health-state preference weight	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1	N/A: Study did not progress beyond Step 1, Q1

Final Comments – Reviewer B:
- The simulation presumes that diabetes can be perfectly controlled through prevention and better treatment. However no detail on a specific strategy was provided.

Study 2: Colagiuri and Walker, 2008[3]

Reviewer A

Step 1: Initial assessment of study design			
Criteria	**Evaluation questions for each criterion**		**Decision Question:** Considering your evaluation for each criterion, is the original study warranted for further assessment?
	Q1: Is the listed study characteristic aligned with local decision-making context? (If 'No', go to Q2)	Q2: Is the original study still informative to the decision problem?	
Study Perspective	No: GH CEA Registry – "not stated/could not determine," but also Reviewer #1 determined it as health sector perspective, which is not relevant	No	
Intervention and its comparator(s)	No: the intervention requires several specialists' visits, which is potentially not a feasible option for the local context. There is a lack of utilization rates and specialist availability in the local context of Kenya	No	A. No, reject the foreign evidence B. No, but the foreign evidence can be used with caution **C. Yes, proceed to data transferability assessment**
Time horizon	No: 10 year scenario	Yes	
Discounting	Yes	N/A: Yes on Q1, no answer required	
Study quality	Yes: GH CEA Rating quality score is acceptable (5/7)	N/A: Yes on Q1, no answer required	

Step 2: Data transferability assessment					
Major considerations	**Evaluation questions for each data input?**				**Decision Question:** Considering your evaluation for each criterion, is the original evidence transferable to your local setting?
	Q1: Are the original input data applied to the local setting? (If 'No', go to Q2)	Q2: Is local data on the specific input available? (If 'Yes', go to Q3 If 'No', go to Q4)	Q3: Is appropriate adjustment for local data input possible? (If 'No', go to Q4)	Q4: Is the data input used in the original study still informative to the local context?	

[3] Stephen Colagiuri and Agnes E. Walker, 'Using an Economic Model of Diabetes to Evaluate Prevention and Care Strategies in Australia', *Health Affairs*, 27.1 (2008), 256-68, https://doi.org/10.1377/hlthaff.27.1.256

					Decision Question:
Baseline risk	No	Yes	No	Yes	A. No, reject the foreign evidence **B. No, but the foreign evidence can be used with caution** C. Yes, but only after appropriate adjustment for local data input D. Yes, apply the foreign evidence as it is
Treatment effects	No	Potentially: Local data may be available, but undetermined on a national scale	No	Yes	
Unit costs/prices	No/not available in the article	Yes	No	No	
Resource utilization	No/not available in the article	Yes	No	No	
Health-state preference weight	Yes: Disability weight used	Potentially	Potentially	Potentially	

Final Comments – Reviewer A:
- Study perspective was unclear per the Global Health CEA Registry, but per reviewer's secondary check of the perspective by reading the article, the reviewer was able to determine a "health sector" perspective; this level of technical expertise to second check the GH CEA Registry may not be feasible for local decision makers, therefore without guidance from the GH CEA Registry The final recommendation is reject but use with caution for future potential, only after local-level data and utilization rates are determined.

Reviewer B

Step 1: Initial assessment of study design			
Criteria	**Evaluation questions for each criterion**		**Decision Question:** Considering your evaluation for each criterion, is the original study warranted for further assessment?
	Q1: Is the listed study characteristic aligned with local decision-making context? (If 'No', go to Q2)	Q2: Is the original study still informative to the decision problem?	
Study Perspective	No: Health care sector, e.g. self-monitoring cost	Yes	A. No, reject the foreign evidence B. No, but the foreign evidence can be used with caution **C. Yes, proceed to data transferability assessment**
Intervention and its comparator(s)	No: Concern about the availability of clinicians and resource and personnel support in the study country	No	
Time horizon	No: 10 years	No	
Discounting	Yes	N/A: Yes on Q1, no answer required	
Study quality	Yes	N/A: Yes on Q1, no answer required	

Step 2: Data transferability assessment					
Major considerations	**Evaluation questions for each data input?**				**Decision Question:** Considering your evaluation for each criterion, is the original evidence transferable to your local setting?
	Q1: Are the original input data applied to the local setting? (If 'No', go to Q2)	Q2: Is local data on the specific input available? (If 'Yes', go to Q3 If 'No', go to Q4)	Q3: Is appropriate adjustment for local data input possible? (If 'No', go to Q4)	Q4: Is the data input used in the original study still informative to the local context?	

Baseline risk	No	Yes	No	Yes	
Treatment effects	No	Yes: Not sure, but can be available	No	Yes	A. No, reject the foreign evidence **B. No, but the foreign evidence can be used with caution** C. Yes, but only after appropriate adjustment for local data input D. Yes, apply the foreign evidence as it is
Unit costs/prices	No/not available in the article	Yes	No	No	
Resource utilization	No/not available in the article	Yes	No	No	
Health-state preference weight	Yes: Disability weight was used)	Potentially	Potentially	Potentially	

Final Comments – Reviewer B:
- The data was from a high income country. The major concern is the cost and resource constraint to implement the program in the low income setting.

Study 3: Bertram et al, 2010[4]
Reviewer A

Step 1: Initial assessment of study design			
Criteria	**Evaluation questions for each criterion**		**Decision Question:** Considering your evaluation for each criterion, is the original study warranted for further assessment?
	Q1: Is the listed study characteristic aligned with local decision-making context? (If 'No', go to Q2)	Q2: Is the original study still informative to the decision problem?	
Study Perspective	No: Limited societal	Yes	
Intervention and its comparator(s)	Yes, with caveat: interventions require author-stated "extensive" visits to several specialists – Kenya may not have matched staffing capacity	Yes, with caveat: (see preceding Q1 answer)	A. No, reject the foreign evidence B. No, but the foreign evidence can be used with caution **C. Yes, proceed to data transferability assessment**
Time horizon	Yes: Lifetime	N/A: Yes on Q1, no answer required	
Discounting	Yes: 3%	N/A: Yes on Q1, no answer required	
Study quality	Yes: GH CEA Rating quality score is acceptable (5/7)	N/A: Yes on Q1, no answer required	
Step 2: Data transferability assessment			
Major considerations	**Evaluation questions for each data input?**		

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[4] Melanie Y Bertamn, 'Assessing the Cost-Effectiveness of Drug and Lifestyle Intervention Following Opportunistic Screening for Pre-Diabetes in Primary Care' *Diabetologia*, 53.5 (2010), 875-81, https://doi.org/10.1007/s00125-010-1661-8

	Q1: Are the original input data applied to the local setting? (If 'No', go to Q2)	Q2: Is local data on the specific input available? (If 'Yes', go to Q3 If 'No', go to Q4)	Q3: Is appropriate adjustment for local data input possible? (If 'No', go to Q4)	Q4: Is the data input used in the original study still informative to the local context?	**Decision Question:** Considering your evaluation for each criterion, is the original evidence transferable to your local setting?
Baseline risk	No: higher prevalence of diabetes in Australia than Kenya	Yes	No	Yes	
Treatment effects	No	No	No	Yes	
Unit costs/prices	No	Yes	No	Yes	A. No, reject the foreign evidence **B. No, but the foreign evidence can be used with caution** C. Yes, but only after appropriate adjustment for local data input D. Yes, apply the foreign evidence as it is
Resource utilization	No	No: unknown - capacity to track exercise physiology visits in Kenya	No	Yes	
Health-state preference weight	No: used disability weights derived from Australia	Yes	No	Potentially*	

Final Comments – Reviewer A:
- *Reviewer had concerns about the Australian population-specific survey used to inform health-state preference weight. Final consensus is to reject the study, but perhaps use it for future research or informing a small pilot scale after adjusting for locally relevant data on health-state and resource utilization.

Reviewer B

Step 1: Initial assessment of study design			
Criteria	**Evaluation questions for each criterion**		**Decision Question:** Considering your evaluation for each criterion, is the original study warranted for further assessment?
	Q1: Is the listed study characteristic aligned with local decision-making context? (If 'No', go to Q2)	Q2: Is the original study still informative to the decision problem?	
Study Perspective	Yes: Health system, health sector [patient cost]	N/A: Yes on Q1, no answer required	
Intervention and its comparator(s)	Yes	N/A: Yes on Q1, no answer required	A. No, reject the foreign evidence B. No, but the foreign evidence can be used with caution **C. Yes, proceed to data transferability assessment**
Time horizon	Yes: Lifetime	N/A: Yes on Q1, no answer required	
Discounting	Yes	N/A: Yes on Q1, no answer required	
Study quality	Yes	N/A: Yes on Q1, no answer required	
Step 2: Data transferability assessment			
Major considerations	**Evaluation questions for each data input?**		

	Q1: Are the original input data applied to the local setting? (If 'No', go to Q2)	Q2: Is local data on the specific input available? (If 'Yes', go to Q3 If 'No', go to Q4)	Q3: Is appropriate adjustment for local data input possible? (If 'No', go to Q4)	Q4: Is the data input used in the original study still informative to the local context?	**Decision Question:** Considering your evaluation for each criterion, is the original evidence transferable to your local setting?
Baseline risk	No	Yes	No	Yes	
Treatment effects	No	Yes: Not sure, but can be available	No	Yes	A. No, reject the foreign evidence **B. No, but the foreign evidence can be used with caution** C. Yes, but only after appropriate adjustment for local data input D. Yes, apply the foreign evidence as it is
Unit costs/prices	No/NA*	Yes	No	No	
Resource utilization	No/NA*	Yes	No	No	
Health-state preference weight	No: Australian disability weight	Yes	No	Yes	

Study 4: Lohse et al, 2011[5]
Reviewer A

Step 1: Initial assessment of study design			
Criteria	**Evaluation questions for each criterion**		**Decision Question:** Considering your evaluation for each criterion, is the original study warranted for further assessment?
	Q1: Is the listed study characteristic aligned with local decision-making context? (If 'No', go to Q2)	Q2: Is the original study still informative to the decision problem?	
Study Perspective	Yes: health care payer perspective appropriate	N/A: Yes on Q1, no answer required	
Intervention and its comparator(s)	Yes	N/A: Yes on Q1, no answer required	A. No, reject the foreign evidence
Time horizon	Lifetime	N/A: Yes on Q1, no answer required	B. No, but the foreign evidence can be used with caution
Discounting	Yes: 3%	N/A: Yes on Q1, no answer required	**C. Yes, proceed to data transferability assessment**
Study quality	Yes: GH CEA Registry quality score rating acceptable (5/7)	N/A: Yes on Q1, no answer required	

Step 2: Data transferability assessment					
Major considerations	**Evaluation questions for each data input?**				**Decision Question:** Considering your evaluation for each criterion, is the original evidence transferable to your local setting?
	Q1: Are the original input data applied to the local setting? (If 'No', go to Q2)	Q2: Is local data on the specific input available? (If 'Yes', go to Q3 If 'No', go to Q4)	Q3: Is appropriate adjustment for local data input possible? (If 'No', go to Q4)	Q4: Is the data input used in the original study still informative to the local context?	
Baseline risk	No: Data is for India and Israel	Yes	No	Yes	
Treatment effects	No	Yes	No	Yes	
Unit costs/prices	No	Yes	No	No	A. No, reject the foreign evidence
Resource utilization	No	Potentially: limited national data on gestational diabetes to match the robust data from India and Israel used in the study; IHME offers broad population-level burden data for Kenya that may be complimentary	No	No	B. No, but the foreign evidence can be used with caution **C. Yes, but only after appropriate adjustment for local data input** D. Yes, apply the foreign evidence as it is
Health-state preference weight	Yes	Potentially	Potentially	Yes	

Final Comments – Reviewer A:
- Concerned with the potential for limited local data availability on the national scale, and prevalence of gestational diabetes in Kenya. Also concerned about potential lack of data on gestational diabetes/antenatal resource utilization rates in Kenya. This study however can inform smart policy possibilities to pilot on small scales after adjustment for local data.

[5] Nicolai Lohse and others , 'Development of a Model to Assess the Cost-Effectiveness of Gestational Diabetes Mellitus Screening and Lifestyle Change for the Prevention of Type 2 Diabetes Mellitus', *International Journal of Gynaecology & Obstetrics*, 115 Suppl (2011), S20-5, https://doi.org/10.1016/s0020-7292(11)60007-6

Step 1: Initial assessment of study design			
Criteria	**Evaluation questions for each criterion**		**Decision Question:** Considering your evaluation for each criterion, is the original study warranted for further assessment?
	Q1: Is the listed study characteristic aligned with local decision-making context? (If 'No', go to Q2)	Q2: Is the original study still informative to the decision problem?	
Study Perspective	Yes: Direct service delivery costs , same project as Marseille et al.	N/A: Yes on Q1, no answer required	A. No, reject the foreign evidence B. No, but the foreign evidence can be used with caution **C. Yes, proceed to data transferability assessment**
Intervention and its comparator(s)	Yes	N/A: Yes on Q1, no answer required	
Time horizon	Yes: Not reported, but find in Marseille et al-lifetime	N/A: Yes on Q1, no answer required	
Discounting	Yes	N/A: Yes on Q1, no answer required	
Study quality	Yes	N/A: Yes on Q1, no answer required	
Step 2: Data transferability assessment					
Major considerations	**Evaluation questions for each data input?**				**Decision Question:** Considering your evaluation for each criterion, is the original evidence transferable to your local setting?
	Q1: Are the original input data applied to the local setting? (If 'No', go to Q2)	Q2: Is local data on the specific input available? (If 'Yes', go to Q3 If 'No', go to Q4)	Q3: Is appropriate adjustment for local data input possible? (If 'No', go to Q4)	Q4: Is the data input used in the original study still informative to the local context?	
Baseline risk	No	Yes	No	Yes	A. No, reject the foreign evidence B. No, but the foreign evidence can be used with caution **C. Yes, but only after appropriate adjustment for local data input** D. Yes, apply the foreign evidence as it is
Treatment effects	No	Yes: Not sure, but can be available	No	Yes	
Unit costs/prices	No/not available in the article	Yes	No	No	
Resource utilization	No/not available in the article	Yes	No	No	
Health-state preference weight	Yes: Disability weight was used	N/A: Yes on Q1, no answer required	N/A: Yes on Q1, no answer required	N/A: Yes on Q1, no answer required	

Final Comments – Reviewer B:
- Data were from India and Israel and the study reached a conclusion of "cost-saving" that is likely to benefit the study country.

Step 1: Initial assessment of study design			
Criteria	**Evaluation questions for each criterion**		**Decision Question:** Considering your evaluation for each criterion, is the original study warranted for further assessment?
	Q1: Is the listed study characteristic aligned with local decision-making context? (If 'No', go to Q2)	Q2: Is the original study still informative to the decision problem?	
Study Perspective	Yes: limited societal	N/A: Yes on Q1, no answer required	A. No, reject the foreign evidence B. No, but the foreign evidence can be used with caution **C. Yes, proceed to data transferability assessment**
Intervention and its comparator(s)	Yes: hypertension control, lipid control, glycemic control versus a null, "do nothing" comparator	N/A: Yes on Q1, no answer required	
Time horizon	No: 10 years	Yes	
Discounting	Yes	N/A: Yes on Q1, no answer required	
Study quality	Yes: GH CEA Registry acceptable quality rating (5/7)	N/A: Yes on Q1, no answer required	

Step 2: Data transferability assessment					
Major considerations	**Evaluation questions for each data input?**				**Decision Question:** Considering your evaluation for each criterion, is the original evidence transferable to your local setting?
	Q1: Are the original input data applied to the local setting? (If 'No', go to Q2)	Q2: Is local data on the specific input available? (If 'Yes', go to Q3 If 'No', go to Q4)	Q3: Is appropriate adjustment for local data input possible? (If 'No', go to Q4)	Q4: Is the data input used in the original study still informative to the local context?	
Baseline risk	No: Mexico	Yes	No	Yes	A. No, reject the foreign evidence B. No, but the foreign evidence can be used with caution **C. Yes, but only after appropriate adjustment for local data input** D. Yes, apply the foreign evidence as it is
Treatment effects	No	Yes	No	Yes	
Unit costs/prices	No	Yes	No	Yes	
Resource utilization	No	Yes	No	Yes	
Health-state preference weight	Yes	Yes	No	Yes	

Final Comments – Reviewer A:
- Reviewer judges that this is a high quality study, in a high-impact journal (BMJ), with highly transparent unit costs, utilization rates, treatment effects and the annual cost per service in the Mexican study setting. This study could inform future domestic research quality standards, or can inform best practices and implementation for a pilot after local data is better available.

[6] Joshua A Salomon and others, 'Disability Weights for the Global Burden of Disease 2013 Study', *Lancet Glob Health*, 3.11 (2015), e712-23, https://doi.org/10.1016/S2214-109X(15)00069-8

Step 1: Initial assessment of study design

Criteria	Evaluation questions for each criterion		Decision Question: Considering your evaluation for each criterion, is the original study warranted for further assessment?
	Q1: Is the listed study characteristic aligned with local decision-making context? (If 'No', go to Q2)	Q2: Is the original study still informative to the decision problem?	
Study Perspective	Yes: Societal, including patient, program training costs	N/A: Yes on Q1, no answer required	
Intervention and its comparator(s)	Yes	N/A: Yes on Q1, no answer required	A. No, reject the foreign evidence
Time horizon	No: 10 years	Yes	B. No, but the foreign evidence can be used with caution
Discounting	Yes	N/A: Yes on Q1, no answer required	**C. Yes, proceed to data transferability assessment**
Study quality	Yes	N/A: Yes on Q1, no answer required	

Step 2: Data transferability assessment

Major considerations	Evaluation questions for each data input?				Decision Question: Considering your evaluation for each criterion, is the original evidence transferable to your local setting?
	Q1: Are the original input data applied to the local setting? (If 'No', go to Q2)	Q2: Is local data on the specific input available? (If 'Yes', go to Q3 If 'No', go to Q4)	Q3: Is appropriate adjustment for local data input possible? (If 'No', go to Q4)	Q4: Is the data input used in the original study still informative to the local context?	
Baseline risk	No	Yes	No	Yes	
Treatment effects	No	Yes: Not sure, but can be available	No	Yes	A. No, reject the foreign evidence
Unit costs/prices	No	Yes	No	Yes	B. No, but the foreign evidence can be used with caution
Resource utilization	No	Yes	No	Yes	**C. Yes, but only after appropriate adjustment for local data input**
Health-state preference weight	Yes: Disability weight was used	N/A: Yes on Q1, no answer required	N/A: Yes on Q1, no answer required	N/A: Yes on Q1, no answer required	D. Yes, apply the foreign evidence as it is

Step 1: Initial assessment of study design			
Criteria	**Evaluation questions for each criterion**		**Decision Question:** Considering your evaluation for each criterion, is the original study warranted for further assessment?
	Q1: Is the listed study characteristic aligned with local decision-making context? (If 'No', go to Q2)	Q2: Is the original study still informative to the decision problem?	
Study Perspective	Yes: Health care payer perspective appropriate	N/A: Yes on Q1, no answer required	A. No, reject the foreign evidence B. No, but the foreign evidence can be used with caution **C. Yes, proceed to data transferability assessment**
Intervention and its comparator(s)	Yes	N/A: Yes on Q1, no answer required	
Time horizon	Lifetime	Yes	
Discounting	Yes: 3%	N/A: Yes on Q1, no answer required	
Study quality	Yes: GH CEA Registry quality score rating acceptable (5/7)	N/A: Yes on Q1, no answer required	

Step 2: Data transferability assessment					
Major considerations	**Evaluation questions for each data input?**				**Decision Question:** Considering your evaluation for each criterion, is the original evidence transferable to your local setting?
	Q1: Are the original input data applied to the local setting? (If 'No', go to Q2)	Q2: Is local data on the specific input available? (If 'Yes', go to Q3 If 'No', go to Q4)	Q3: Is appropriate adjustment for local data input possible? (If 'No', go to Q4)	Q4: Is the data input used in the original study still informative to the local context?	
Baseline risk	No: India and Israel	Yes	No	Yes	A. No, reject the foreign evidence B. No, but the foreign evidence can be used with caution **C. Yes, but only after appropriate adjustment for local data input** D. Yes, apply the foreign evidence as it is
Treatment effects	No	Yes	No	Yes	
Unit costs/prices	No	Yes	No	Yes	
Resource utilization	No	Potentially: limited national data on gestational diabetes, IHME offers broad population-level burden data	No	Yes	
Health-state preference weight	Yes	N/A: Yes on Q1, no answer required	N/A: Yes on Q1, no answer required	N/A: Yes on Q1, no answer required	

Final Comments – Reviewer A:
- Concerned with the potential for limited local data availability on the national scale, and prevalence of gestational diabetes in Kenya. Also concerned about a potential lack of local data on gestational diabetes/antenatal resource utilization rates in Kenya. This study however can inform smart policy possibilities to pilot on small scales after appropriate adjustment for local data.

[7] Elliot Marseille et al, 'The Cost-Effectiveness of Gestational Diabetes Screening Including Prevention of Type 2 Diabetes: Application of a New Model in India and Israel', *Journal of Maternal-Fetal & Neonatal Medicine*, 26.8 (2013), 802–10, https://doi.org/10.3109/14767058.2013.76584

Reviewer B

Step 1: Initial assessment of study design

Criteria	Evaluation questions for each criterion		Decision Question: Considering your evaluation for each criterion, is the original study warranted for further assessment?
	Q1: Is the listed study characteristic aligned with local decision-making context? (If 'No', go to Q2)	Q2: Is the original study still informative to the decision problem?	
Study Perspective	Yes	N/A: Yes on Q1, no answer required	
Intervention and its comparator(s)	Yes: Screening vs no screening	N/A: Yes on Q1, no answer required	A. No, reject the foreign evidence B. No, but the foreign evidence can be used with caution **C. Yes, proceed to data transferability assessment**
Time horizon	Yes	N/A: Yes on Q1, no answer required	
Discounting	Yes	N/A: Yes on Q1, no answer required	
Study quality	Yes	N/A: Yes on Q1, no answer required	

Step 2: Data transferability assessment

Major considerations	Evaluation questions for each data input?				Decision Question: Considering your evaluation for each criterion, is the original evidence transferable to your local setting?
	Q1: Are the original input data applied to the local setting? (If 'No', go to Q2)	Q2: Is local data on the specific input available? (If 'Yes', go to Q3 If 'No', go to Q4)	Q3: Is appropriate adjustment for local data input possible? (If 'No', go to Q4)	Q4: Is the data input used in the original study still informative to the local context?	
Baseline risk	No	Yes	No	Yes	
Treatment effects	No	Yes: Not sure, but can be available	No	Yes	A. No, reject the foreign evidence B. No, but the foreign evidence can be used with caution **C. Yes, but only after appropriate adjustment for local data input** D. Yes, apply the foreign evidence as it is
Unit costs/prices	No/Not available in the article	Yes	No	No	
Resource utilization	No/Not available in the article	Yes	No	No	
Health-state preference weight	Yes: Disability weight was used	N/A: Yes on Q1, no answer required	N/A: Yes on Q1, no answer required	N/A: Yes on Q1, no answer required	

Final Comments – Reviewer B:
- Study was conducted in two countries including India which has similar GDP per capita as compared with the study country (Kenya).

Step 1: Initial assessment of study design			
Criteria	**Evaluation questions for each criterion**		**Decision Question:** Considering your evaluation for each criterion, is the original study warranted for further assessment?
	Q1: Is the listed study characteristic aligned with local decision-making context? (If 'No', go to Q2)	Q2: Is the original study still informative to the decision problem?	
Study Perspective	Yes: Societal/health sector	N/A: Yes on Q1, no answer required	
Intervention and its comparator(s)	Yes: Assumed adherence to international diabetes management clinical guidelines	N/A: Yes on Q1, no answer required	A. No, reject the foreign evidence B. No, but the foreign evidence can be used with caution **C. Yes, proceed to data transferability assessment**
Time horizon	Yes: Multiple, includes preferential lifetime	N/A: Yes on Q1, no answer required	
Discounting	Yes: 3%	N/A: Yes on Q1, no answer required	
Study quality	Yes: Study published in a high impact journal, and of acceptable article quality per the CEVR GH CEA Registry (5/7)	N/A: Yes on Q1, no answer required	

Step 2: Data transferability assessment					
Major considerations	**Evaluation questions for each data input?**				**Decision Question:** Considering your evaluation for each criterion, is the original evidence transferable to your local setting?
	Q1: Are the original input data applied to the local setting? (If 'No', go to Q2)	Q2: Is local data on the specific input available? (If 'Yes', go to Q3 If 'No', go to Q4)	Q3: Is appropriate adjustment for local data input possible? (If 'No', go to Q4)	Q4: Is the data input used in the original study still informative to the local context?	
Baseline risk	Yes	Yes: Ghana has similar disease burden for diabetes (Ghana at 2.2% in 2015, and Kenya at 2% 2018)	No: Author's original model not available)	Yes	A. No, reject the foreign evidence B. No, but the foreign evidence can be used with caution C. Yes, but only after appropriate adjustment for local data input **D. Yes, apply the foreign evidence as it is**
Treatment effects	No	Potentially	Potentially	Potentially	
Unit costs/prices	Yes	Yes	No	Yes: Authors use internationally weighted values)	
Resource utilization	Yes	Yes	No	Yes	
Health-state preference weight	Yes : Preferential standardized disability weights	Yes	No	Yes	

[8] Sanjay Basu and others, 'Comparative Effectiveness and Cost-Effectiveness of Treat-to-Target versus Benefit-Based Tailored Treatment of Type 2 Diabetes in Low-Income and Middle-Income Countries: A Modelling Analysis', *Lancet Diabetes & Endocrinology*, 4.11 (2016), 922–32, https://doi.org/10.1016/s2213-8587(16)30270-4

Step 1: Initial assessment of study design

Criteria	Evaluation questions for each criterion		Decision Question: Considering your evaluation for each criterion, is the original study warranted for further assessment?
	Q1: Is the listed study characteristic aligned with local decision-making context? (If 'No', go to Q2)	Q2: Is the original study still informative to the decision problem?	
Study Perspective	Yes: Societal perspective in the article but only integrated treatment costs	N/A: Yes on Q1, no answer required	
Intervention and its comparator(s)	Yes	N/A: Yes on Q1, no answer required	A. No, reject the foreign evidence
Time horizon	Yes: lifetime	N/A: Yes on Q1, no answer required	B. No, but the foreign evidence can be used with caution
Discounting	Yes	N/A: Yes on Q1, no answer required	**C. Yes, proceed to data transferability assessment**
Study quality	Yes: Lancet	N/A: Yes on Q1, no answer required	

Step 2: Data transferability assessment

Major considerations	Evaluation questions for each data input?				Decision Question: Considering your evaluation for each criterion, is the original evidence transferable to your local setting?
	Q1: Are the original input data applied to the local setting? (If 'No', go to Q2)	Q2: Is local data on the specific input available? (If 'Yes', go to Q3 If 'No', go to Q4)	Q3: Is appropriate adjustment for local data input possible? (If 'No', go to Q4)	Q4: Is the data input used in the original study still informative to the local context?	
Baseline risk	No	Yes	No	Yes	
Treatment effects	Not sure	No	No	Yes	A. No, reject the foreign evidence
Unit costs/prices	No	Yes	No	Yes	B. No, but the foreign evidence can be used with caution **C. Yes, but only after appropriate adjustment for local data input**
Resource utilization	No	Yes	No	Yes	D. Yes, apply the foreign evidence as it is
Health-state preference weight	Yes: Disability weight use	N/A: Yes on Q1, no answer required	N/A: Yes on Q1, no answer required	N/A: Yes on Q1, no answer required	

Final Comments – Reviewer B:
- Study country has relatively similar context of geographical location (in Africa) and income level.

6D. Impact Inventory Template

(Adapted from Figure 1, Sanders et al, 2016)[9]

Figure 1. Impact Inventory Template

Sector	Type of Impact (list category within each sector with unit of measure if relevant)[a]	Included in This Reference Case Analysis From…Perspective?		Notes on Sources of Evidence
		Health Care Sector	**Societal**	
Formal Health Care Sector				
Health	Health outcomes (effects)			
	Longevity effects	☐	☐	
	Health-related quality-of-life effects	☐	☐	
	Other health effects (eg, adverse events and secondary transmissions of infections)	☐	☐	
	Medical costs			
	Paid for by third-party payers	☐	☐	
	Paid for by patients out-of-pocket	☐	☐	
	Future related medical costs (payers and patients)	☐	☐	
	Future unrelated medical costs (payers and patients)	☐	☐	
Informal Health Care Sector				
Health	Patient-time costs	NA	☐	
	Unpaid caregiver-time costs	NA	☐	
	Transportation costs	NA	☐	
Non–Health Care Sectors (with examples of possible items)				
Productivity	Labor market earnings lost	NA	☐	
	Cost of unpaid lost productivity due to illness	NA	☐	
	Cost of uncompensated household production[b]	NA	☐	
Consumption	Future consumption unrelated to health	NA	☐	
Social Services	Cost of social services as part of intervention	NA	☐	
Legal or Criminal Justice	Number of crimes related to intervention	NA	☐	
	Cost of crimes related to intervention	NA	☐	
Education	Impact of intervention on educational achievement of population	NA	☐	
Housing	Cost of intervention on home improvements (eg, removing lead paint)	NA	☐	
Environment	Production of toxic waste pollution by intervention	NA	☐	
Other (specify)	Other impacts	NA	☐	

[a] Categories listed are intended as examples for analysts.

[b] Examples include activities such as food preparation, cooking, and clean up in the household; household management; shopping; obtaining services; and travel related to household activity.[18]

NA indicates not applicable.

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[9] Gillian D Sanders et al, 'Recommendations for Conduct, Methodological Practices, and Reporting of Cost-Effectiveness Analyses: Second Panel on Cost-Effectiveness in Health and Medicine', *JAMA*, 316.10 (2016), 1093–1103, https://doi.org/10.1001/jama.2016.12195