

The Decision Matrix

Presented to the Advisory Committee on Heritable Disorders in
Newborns and Children

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Objectives

- Review the development and use of the Decision Matrix



Decision-making process for conditions nominated to the Recommended Uniform Screening Panel: statement of the US Department of Health and Human Services Secretary's Advisory Committee on Heritable Disorders in Newborns and Children

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Decision Matrix

NET BENEFIT/ CERTAINTY		READINESS			FEASIBILITY		
		Ready	Developmental	Unprepared			
SIGNIFICANT Benefit	Certainty	HIGH	A1 Screening for the condition has a high certainty of significant net benefits, screening has high or moderate feasibility. Most public health departments are ready to screen.	A2 Screening for the condition has a high certainty of significant net benefits and screening has high or moderate feasibility. Public health departments have only developmental readiness.	A3 Screening for the condition has a high certainty of significant net benefits and screening has high or moderate feasibility. Public health departments are unprepared for screening.	Feasibility	HIGH or MODERATE
		MOD	A4 There is high certainty that screening would have a significant benefit; however, most health departments have low feasibility of implementing population screening.				LOW
Small to ZERO Benefit	Certainty	MOD/HIGH	B 1-4 There is moderate certainty that screening would have a significant benefit.				
NEG Benefit		MOD/HIGH	C 1-4 There is high or moderate certainty that adoption of screening for the targeted condition would have a small to zero net benefit.				
---		LOW	D 1-4 There is high or moderate certainty that adoption of screening for the targeted condition would have a negative net benefit.				
---		LOW	L 1-4 There is low certainty regarding the potential net benefit from screening.				

Key Points

- There will always be uncertainty

NET BENEFIT/ CERTAINTY	READINESS			FEASIBILITY
	Ready	Developmental	Unprepared	
SIGNIFICANT Benefit Certainty HIGH	A1 Screening for the condition has a high certainty of significant net benefits, screening has high or moderate feasibility. Most public health departments are ready to screen.	A2 Screening for the condition has a high certainty of significant net benefits and screening has high or moderate feasibility. Public health departments have only developmental readiness.	A3 Screening for the condition has a high certainty of significant net benefits and screening has high or moderate feasibility. Public health departments are unprepared for screening.	HIGH or MODERATE Feasibility LOW
	A4 There is high certainty that screening would have a significant benefit; however, most health departments have low feasibility of implementing population screening.			
Small to ZERO Benefit Certainty MOD/MSH	B 1-4 There is moderate certainty that screening would have a significant benefit.			-
	C 1-4 There is high or moderate certainty that adoption of screening for the targeted condition would have a small to zero net benefit.			
NEG Benefit Certainty MSO/MSH	D 1-4 There is high or moderate certainty that adoption of screening for the targeted condition would have a negative net benefit.			-
---	L 1-4 There is low certainty regarding the potential net benefit from screening.			-

Key Points

- “...a B rating of the evidence indicates moderate certainty that screening would lead to a significant net benefit. The term moderate...indicates that the Advisory Committee believes that further research could change the magnitude or direction of findings...such that the assessment of net benefit would be small to zero or even negative.”

NET BENEFIT CERTAINTY	READINESS			FEASIBILITY	
	Ready	Developmental	Unprepared		
SIGNIFICANT Benefit	HIGH Certainty	A1 Screening for the condition has a high certainty of significant net benefits, screening has high or moderate feasibility. Most public health departments are ready to screen.	A2 Screening for the condition has a high certainty of significant net benefits and screening has high or moderate feasibility. Public health departments have only developmental readiness.	A3 Screening for the condition has a high certainty of significant net benefits and screening has high or moderate feasibility. Public health departments are unprepared for screening.	HIGH or MODERATE Feasibility
		A4 There is high certainty that screening would have a significant benefit; however, most health departments have low feasibility of implementing population screening.			
Small to ZERO Benefit	MOD Certainty	B 1-4 There is moderate certainty that screening would have a significant benefit.			LOW
		C 1-4 There is high or moderate certainty that adoption of screening for the targeted condition would have a small to zero net benefit.			
NEG Benefit	MOD/MSH Certainty	D 1-4 There is high or moderate certainty that adoption of screening for the targeted condition would have a negative net benefit.			
---	LOW Certainty	L 1-4 There is low certainty regarding the potential net benefit from screening.			

Recommendations based on the Matrix

- A1 or A2 – recommended to the RUSP
- A3 or A4 – at the discretion of the Advisory Committee
- B, C, D, or L – not recommended to the RUSP; the Advisory Committee will provide guidance regarding research needs

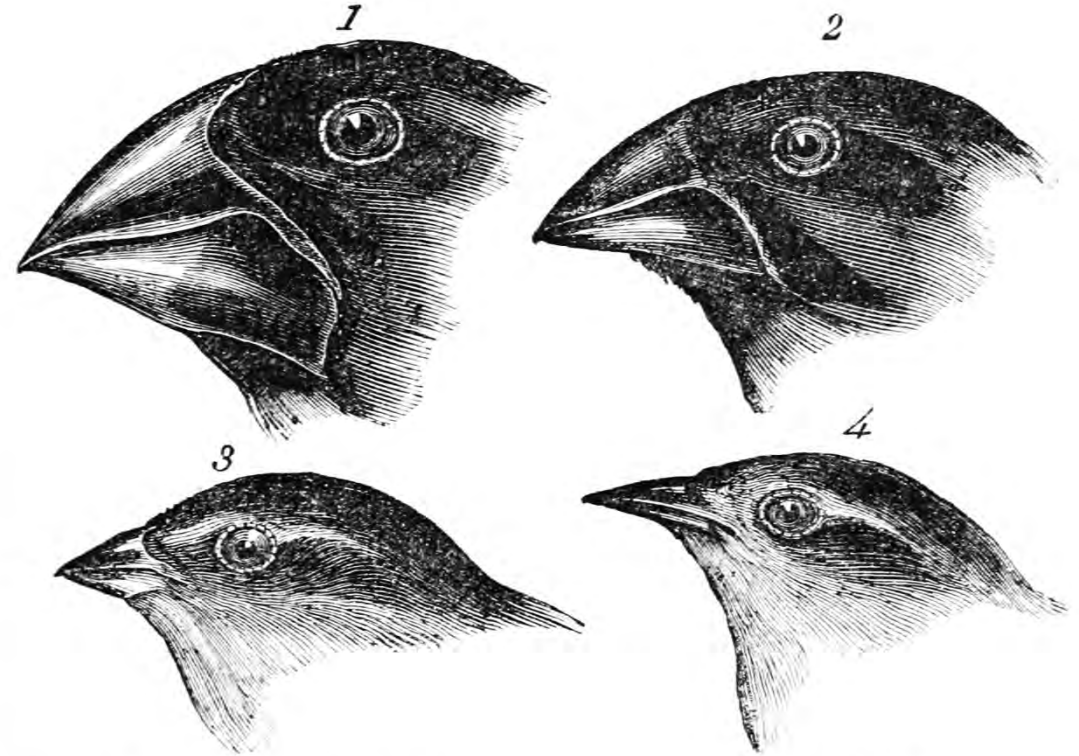
NET BENEFIT CERTAINTY		READINESS			FEASIBILITY
		Ready	Developmental	Unprepared	
SIGNIFICANT Benefit	HIGH	A1 Screening for the condition has a high certainty of significant net benefits, screening has high or moderate feasibility. Most public health departments are ready to screen.	A2 Screening for the condition has a high certainty of significant net benefits and screening has high or moderate feasibility. Public health departments have only developmental readiness.	A3 Screening for the condition has a high certainty of significant net benefits and screening has high or moderate feasibility. Public health departments are unprepared for screening.	HIGH or MODERATE
	MOD	A4 There is high certainty that screening would have a significant benefit; however, most health departments have low feasibility of implementing population screening.			LOW
Small to ZERO Benefit	MOD/MSH	B 1-4 There is moderate certainty that screening would have a significant benefit.			+
NEG Benefit	MOD/MSH	C 1-4 There is high or moderate certainty that adoption of screening for the targeted condition would have a small to zero net benefit.			+
	LOW	D 1-4 There is high or moderate certainty that adoption of screening for the targeted condition would have a negative net benefit.			-
...	LOW	L 1-4 There is low certainty regarding the potential net benefit from screening.			-

Decision Matrix and Subsequent Recommendation

Date of Vote	Condition	Matrix	Recommendation (Y:N:Recused)
Feb 2018*	SMA	B2	Recommend to RUSP (8:5:2)
Aug 2015*	X-ALD	A2	Recommend to RUSP (12:1:1)
Feb 2015	MPS I	B3	Recommend to RUSP (11:3:0)
May 2013*	Pompe	NA	Recommend to RUSP (11:2:0)
Sept 2010*	CCHD	NA	Recommend to RUSP <i>with Qualifications</i> (13:1:0)
Jan 2010*	SCID	NA	Recommend to RUSP (<i>*count not recorded</i>)
<i>*2nd nomination and/or AC vote</i>			

Refining the Decision Matrix

- Refining processes is normal and expected
- Next – a discussion, led by Dr. Powell



1. *Geospiza magnirostris*.
3. *Geospiza parvula*.

2. *Geospiza fortis*.
4. *Certhidea olivacea*.