



HIE Use Case Design Group

A Design Group of the Connecticut Health IT Advisory Council

August 30, 2017 | 2:30 – 4:00 pm

Session #9

Facilitated by CedarBridge Group



CEDARBRIDGE
GROUP

Agenda

Welcome / Roll Call	Michael Matthews	2:30 PM
Comments on 8/23/17 Minutes	Design Group Members	2:32 PM
Review Meeting Schedule	Michael Matthews	2:34 PM
Overview of Process and Remaining Work	Michael Matthews	2:35 PM
Discuss Use Cases Under Consideration and Revised Scoring Results	Michael Matthews	3:00 PM
Discuss Other Use Cases	Michael Matthews	3:40 PM
Meeting Wrap-up and Next Steps	Michael Matthews	3:55 PM

Comments on 8/23/17 Minutes

Meeting Schedule

Milestones/Deliverables	Dates
Session 1: Kick-Off Meeting	6/27/17
Session 2: Review Use Cases (Part 1)	7/12/17
Session 3: Review Use Cases (Part 2)	7/19/17
Present update to Health IT Advisory Council	7/20/17
Session 4: Review Use Cases (Part 3)	7/27/17
Session 5: Review Use Cases (Part 4)	8/2/17
Session 6: Review Use Cases (Part 5) and Prioritization Criteria for Use Cases	8/9/17
Session 7: Review Final Use Cases (Part 6); Apply Prioritization Criteria	8/16/17
Present Update to Health IT Advisory Council	8/17/17
Session 8: Select “Top 10” Use Cases; Discuss Final Prioritization Criteria	8/23/17
CedarBridge to Conduct Analysis of “Top 10” Use Cases; Research Financial, Business, Legal, and Policy Considerations	8/23/17 - 8/30/17
Session 9: Validate Value Propositions, Implementation Priorities, and HIE Services Needed to Enable Priority Use Cases	8/30/17
Session 10: Draft Recommendations	9/6/17
Present Report and Recommendations to Council	9/21/17
Delivery of Final Report and Recommendations to HITO	9/30/17

Overview of Process and Remaining Work

Review Prioritization
Methodology and Criteria
Elements

Use Case Prioritization Criteria

Prioritization Criteria

1. Value for Patients and Consumers
 - Patient-centeredness; allows for patient preference, choice, and convenience
2. Value for Other Stakeholders (providers, community orgs, payers, employers, etc.)
 - Alignment with organization goals and business requirements for stakeholders
3. Workflow Impact
 - Defined impact to clinical staff's workflows (positive or negative)
 - Defined impact to administrative staff's workflows (positive or negative)
4. Ease of Implementation
 - Implementation readiness / use case maturity
5. Integration, Maintenance, and Technical Assistance
 - Define resource requirements necessary to support implementation and integration(s), including technical assistance and maintenance
6. Prerequisite Services
 - Assessment of prerequisite services for an HIE entity and partner organizations (HISP, ability to produce/send ADTs, etc.)
7. Scalability
 - Stand-alone use case vs. cluster (e.g. care coordination and longitudinal health record)
8. Existing Infrastructure / Resources
 - Does existing infrastructure meet the needs of stakeholders?

Use Case Prioritization Methodology

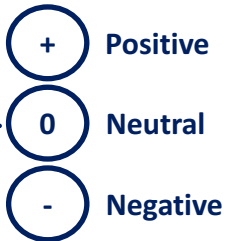
The HIE Use Case Design Group has developed and reviewed a comprehensive list of potential HIE use cases that represent all stakeholders in Connecticut's healthcare ecosystem. In total, the DG reviewed 31 use cases. Following the review, the DG engaged in two activities to prioritize and sequence the reviewed use cases. Once scores were received from both activities, the data was analyzed and compiled to help guide the Design Group's sequencing decisions.

Activity 1: Prioritization Matrix - Design Group members received the Matrix as an Excel spreadsheet. Members were asked to assess each use case against the 8 prioritization elements listed on the previous slide. In assessing the use cases, they were asked to determine if the use case impacted the criteria element positively, negatively, or neutrally by assigning a +, -, or 0. Each symbol was assigned a score, and a cumulative score was calculated for each use case.

Activity 2: Survey: Design Group members received a link to a SurveyMonkey questionnaire where they were asked to assemble a top 10 ranking, based solely off of their personal perspective and opinions.

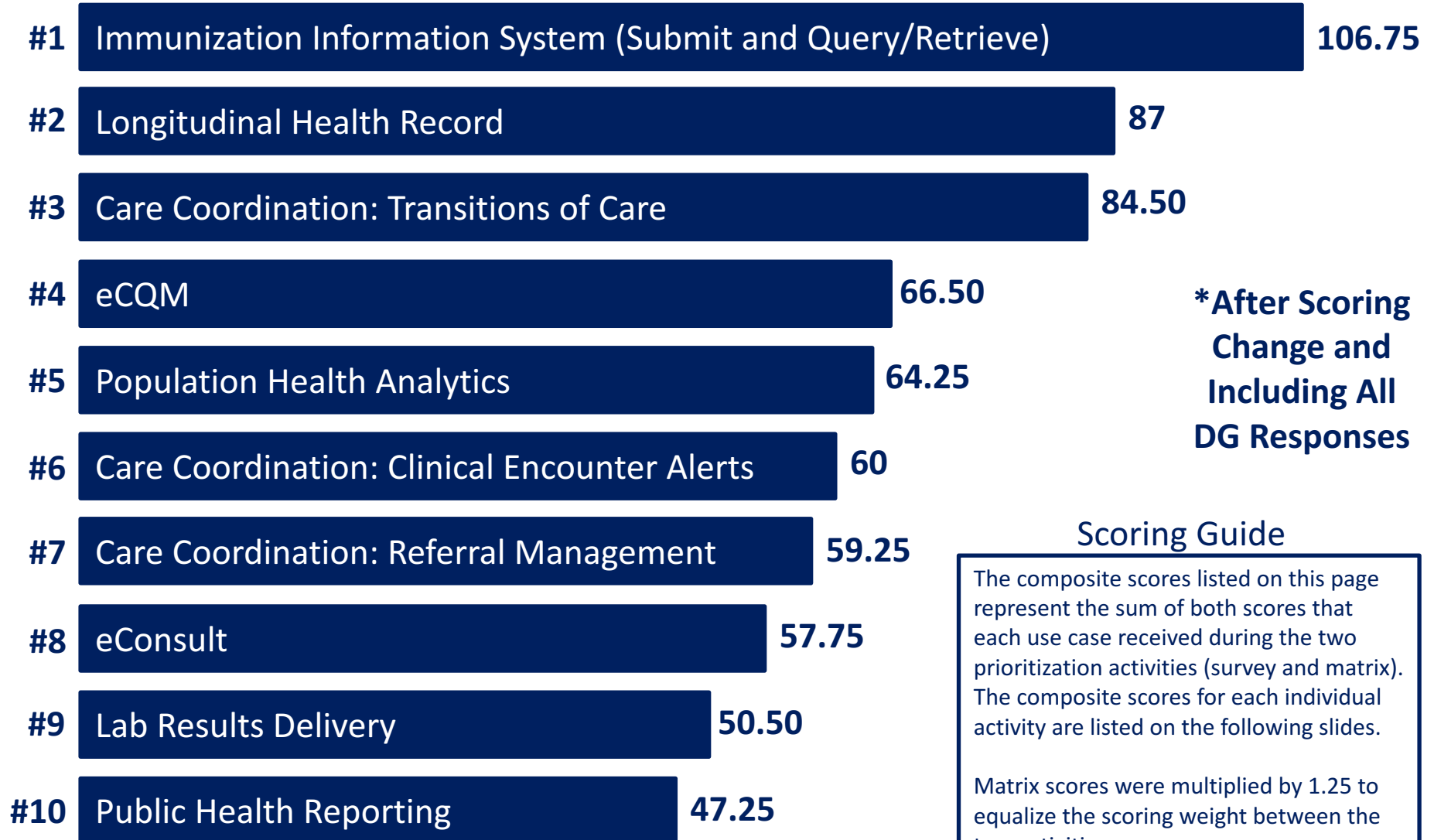
Use Case Inventory: Inclusion Criteria

Use Case	Patients	Stakeholders
1. Electronic Clinical Quality Measures (eCQM)	++00000	++++++0
2. Immunization Information System (IIS) - Submit and Query/Retrieve	+++++++	++++++0
4. Advance Directives	++++++0	++++++0
5. Opioid Monitoring and Support Services	++++++0	++++++0
6. Wounded Warriors	+++++++	+++++00
7. Longitudinal Health Record	++++++0	+++++++
8. Emergency Department Super-Utilizers	++++++0	+++++++
9. Medication Reconciliation	+++++++	+++++++
10. Care Coordination: Referral Management	+++++00	++++++0
11. Care Coordination: Transitions of Care	++++++0	+++++++
12. Care Coordination: Clinical Encounter Alerts	+++++00	+++++++
13. Care Coordination: Care Plan Sharing	++++++0	+++++++
14. POLST / MOLST	+++++++	++++000
15. Disability Determination	++++00 -	++++000
16. Life Insurance Underwriting	+++++0 -	+++0000
17. Image Exchange	++++++0	+++++++
18. Population Health Analytics	+++++00	+++++++
19. Public Health Reporting	++++000	+++++++
20. Lab Results Delivery	++++++0	+++++++
21. Social Determinants of Health	+++++++	++++++0
22. Research / Clinical Trials	+++++0 -	+++++++
23. Patient Portal / Personal Health Record	+++++++	+++0000
25. Medical Orders / Order Management	+++0000	++++++0
28. Emergency Medical Services (EMS)	+++++00	++++++0
30. Genomics	+++++00	++++000
31. eConsult	++++++0	++++++0



Review Updated Composite Scores

Combined Ranking & Composite Scores



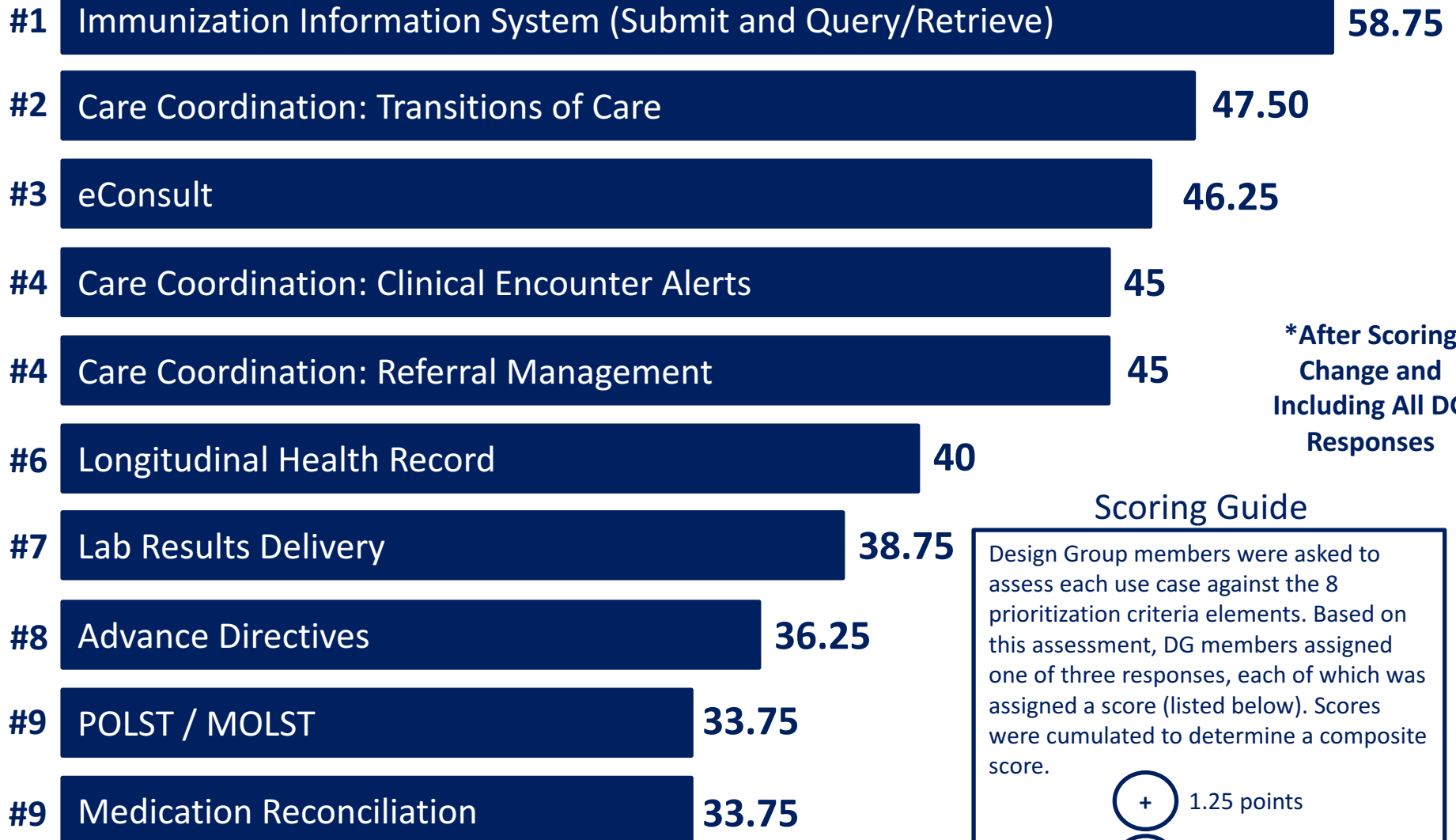
***After Scoring
Change and
Including All
DG Responses**

Scoring Guide

The composite scores listed on this page represent the sum of both scores that each use case received during the two prioritization activities (survey and matrix). The composite scores for each individual activity are listed on the following slides.

Matrix scores were multiplied by 1.25 to equalize the scoring weight between the two activities.

Matrix (Activity #1): Ranking & Composite Scores

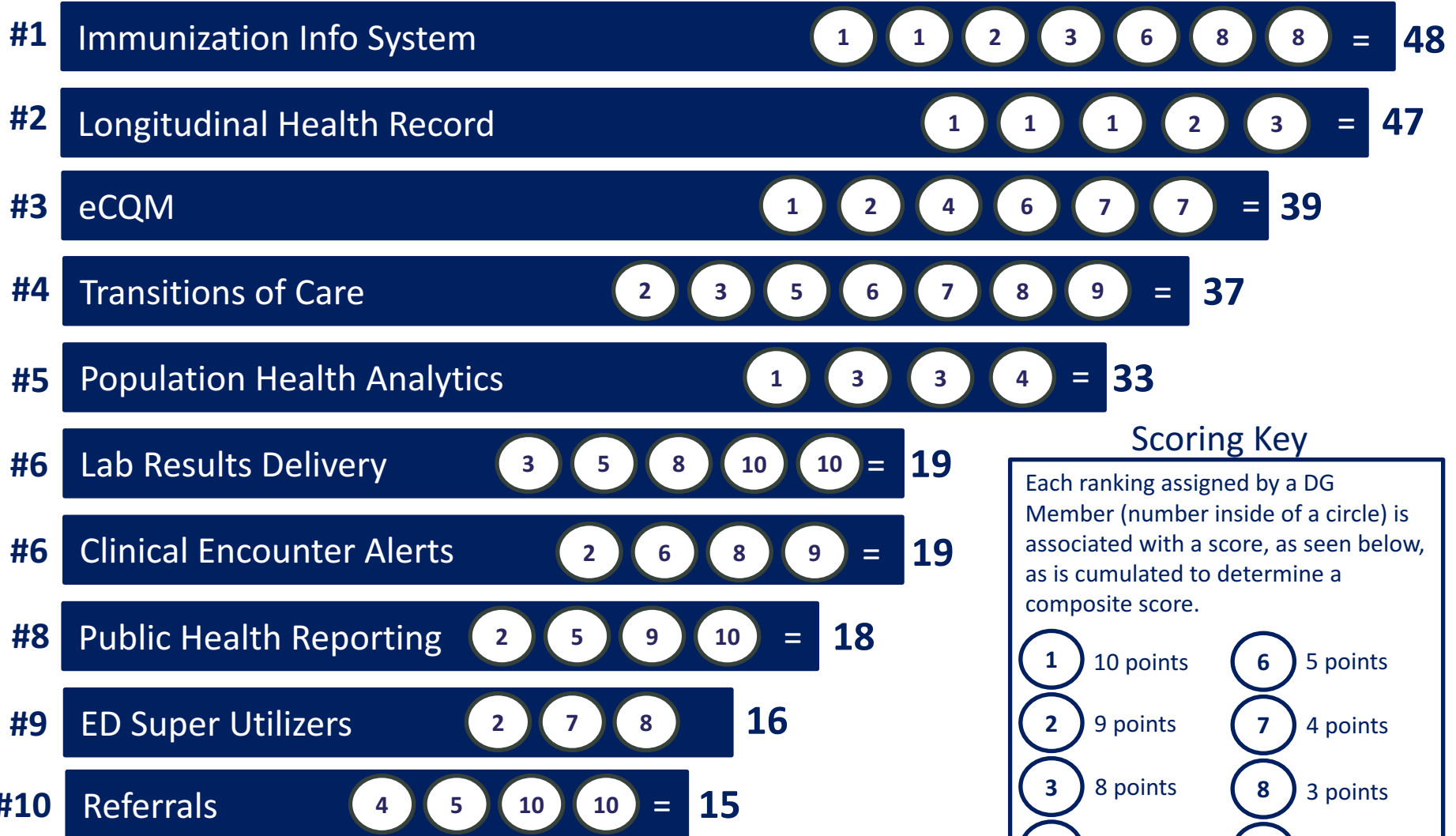


Scoring Guide

Design Group members were asked to assess each use case against the 8 prioritization criteria elements. Based on this assessment, DG members assigned one of three responses, each of which was assigned a score (listed below). Scores were cumulated to determine a composite score.

- +** 1.25 points
- 0** 0 points
- -1.25 points

Survey (Activity #2): Ranking & Composite Scores



Scoring Key

Each ranking assigned by a DG Member (number inside of a circle) is associated with a score, as seen below, as is cumulated to determine a composite score.

1	10 points	6	5 points
2	9 points	7	4 points
3	8 points	8	3 points
4	7 points	9	2 points
5	6 points	10	1 point

Compare Updated Composite Score Overlap

*After Scoring
Change / With All
Responses

Use Case Inventory: Combined “Top 10”

Use Case	Matrix Score	Survey Score	Combined Score
Immunization Information System	58.75	48.00	106.75
Longitudinal Health Record	40.00	47.00	87.00
Care Coordination: Transitions of Care	47.50	37.00	84.50
eCQM	27.50	39.00	66.50
Population Health Analytics	31.25	33.00	64.25
Care Coordination: Encounter Alerts	45.00	19.00	60.00
Care Coordination: Referral Management	34.50	13.00	59.25
eConsult	46.25	15.00	57.75
Lab Results Delivery	38.75	19.00	50.50
Public Health Reporting	32.50	18.00	47.25

Use Case Inventory: Use Cases “In The Middle”

The following table contains the use cases that did not make the combined “Top 10” list, but were listed among the top 10 use cases for one of the two activities.

Use Case	Matrix Score	Survey Score	Combined Score
ED Super Utilizers	31.25	16.00	47.25
Medication Reconciliation	33.75	13.00	46.75
Advance Directives	36.25	9.00	45.25
POLST / MOLST	33.75	0.00	33.75

Use Case Inventory: Neither “Top 10” List

Use Case
Opioid Monitoring and Support Services
Image Exchange
Wounded Warriors
Care Coordination: Care Plan Sharing
Disability Determination
Life Insurance Underwriting
Social Determinants of Health
Research / Clinical Trials
Patient Portal / Personal Health Record
Medical Orders / Order Management
Emergency Medical Services (EMS)
Genomics
Patient-Generated Data – <i>use case was not considered for prioritization</i>
CHA Dose Registry – <i>use case was not considered for prioritization</i>
Bundle Management – <i>use case was not considered for prioritization</i>
Lab Orders – <i>use case was not considered for prioritization</i>

Use Case Discussion

PRIORITY USE CASES

Immunization Information System - *affirmed as a priority*

eCQM - *affirmed as a priority*

Longitudinal Health Record - *affirmed as a priority; viewed as foundational to many other use cases*

Care Coordination: Encounter Alerts - *initial component of the Transitions of Care use case*

Population Health Analytics - *use case that can potentially leverage technology supporting eCQM*

Public Health Reporting - *complementary to, and supportive of the IIS use case*

Advance Directives / POLST & MOLST - *consistent with the concept of the patient as the “North Star”*

Patient Portal / Personal Health Record - *consistent with the concept of the patient as the “North Star”*

OTHER USE CASES

Care Coordination: Referral Management

~~eConsult~~

~~Lab Results Delivery~~

Emergency Department Super-Utilizers

Medication Reconciliation

Image Exchange

Opioid Monitoring and Support Services

Wounded Warriors

Medical Orders / Order Management

Care Coordination: Care Plan Sharing

Social Determinants of Health

Emergency Medical Services (EMS)

Disability Determination

Research / Clinical Trials

Genomics

Life Insurance Underwriting

Not Considered for Prioritization: Patient Generated Data; CHA Dose Registry; Bundle Management; Lab Orders

Next Steps

- Finalize priority use case list
- Conduct additional analysis of additional priority use cases, including business, financial, legal, and policy considerations
- Conduct technology review of priority use cases
- Socialize use cases and associated value proposition(s) to stakeholders
- Determine approach for Health IT Advisory Council Meetings on 9/21/17 and 10/19/17
- Schedule Next Design Group Meeting (if it is agreed to postpone the meeting on 9/6/17)



Michael Matthews

Michael@cedarbridgegroup.com

Carol Robinson

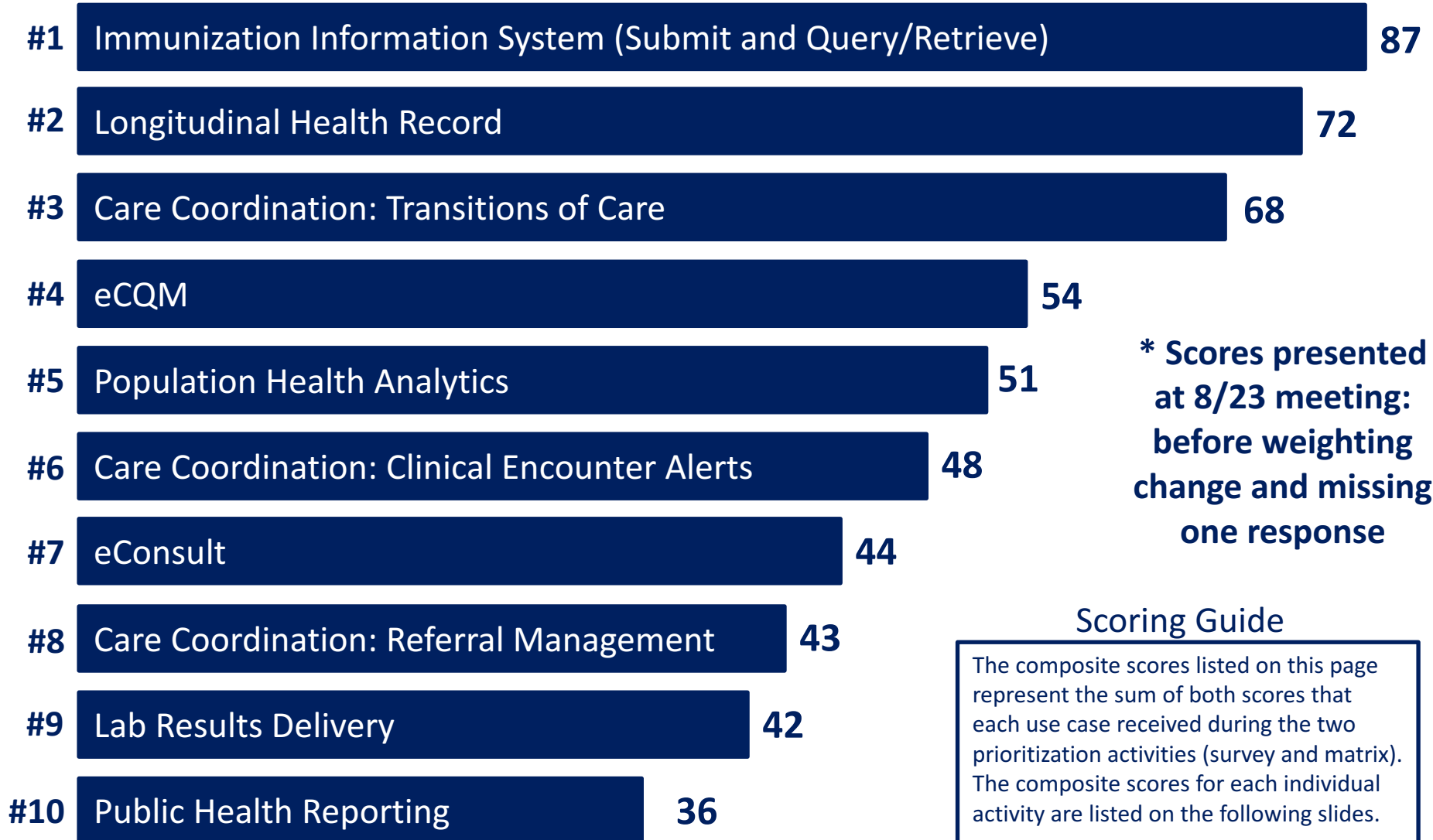
Carol@cedarbridgegroup.com

www.cedarbridgegroup.com



Appendix

Combined Ranking & Composite Scores

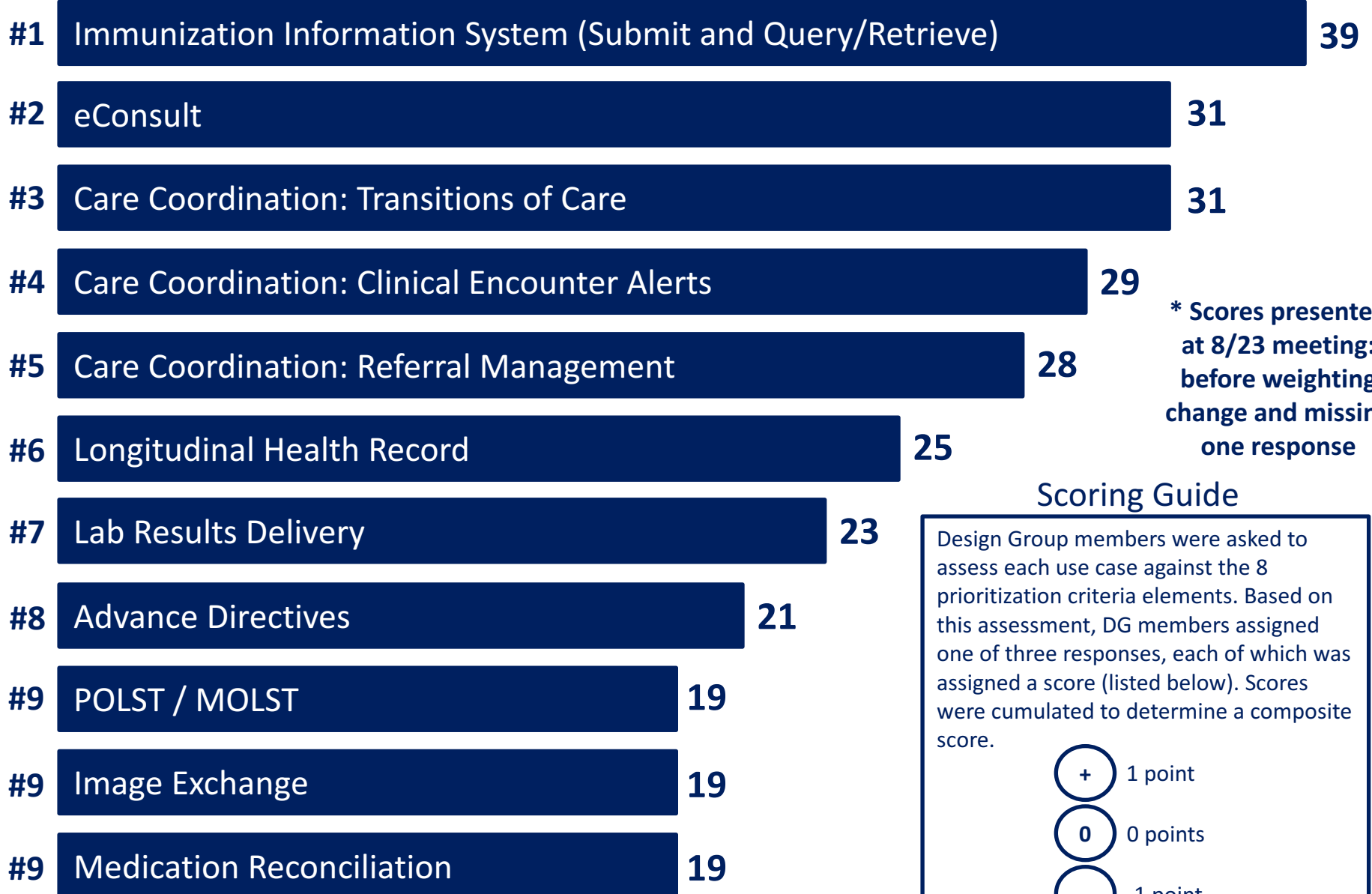


*** Scores presented at 8/23 meeting: before weighting change and missing one response**

Scoring Guide

The composite scores listed on this page represent the sum of both scores that each use case received during the two prioritization activities (survey and matrix). The composite scores for each individual activity are listed on the following slides.

Matrix (Activity #1): Ranking & Composite Scores



* Scores presented at 8/23 meeting: before weighting change and missing one response

Scoring Guide

Design Group members were asked to assess each use case against the 8 prioritization criteria elements. Based on this assessment, DG members assigned one of three responses, each of which was assigned a score (listed below). Scores were cumulated to determine a composite score.

- +** 1 point
- 0** 0 points
- -1 point

Use Case Inventory: Combined “Top 10”

Before Scoring
Change

Use Case	Matrix Score	Survey Score	Combined Score
Immunization Information System	39	48	87
Longitudinal Health Record	25	47	72
Care Coordination: Transitions of Care	31	37	68
eCQM	15	39	54
Population Health Analytics	18	33	51
Care Coordination: Encounter Alerts	29	19	48
eConsult	31	13	44
Care Coordination: Referral Management	28	15	43
Lab Results Delivery	23	19	42
Public Health Reporting	18	18	36

Use Case Inventory: Use Cases “In The Middle”

The following table contains the use cases that did not make the combined “Top 10” list, but were listed among the top 10 use cases for one of the two activities.

Use Case	Matrix Score	Survey Score	Combined Score
ED Super Utilizers	17	16	33
Image Exchange	19	13	32
Medication Reconciliation	19	13	32
Advance Directives	21	9	30
POLST / MOLST	19	0	19