Get Involved: CMMI Healthcare Systems Engineering Center

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www.HSyE.org
Open Call for Projects

Usual Timeline

M1. Project charter proposal
Online: www.hsye.org

M2. One month scope process
Unified paperwork

M3. Project launch, 6mn cycle
To Participate

Characteristics

✓ Open to anyone, not for everyone
✓ Triple aim projects
✓ Two identified key points of contact
✓ Bi-weekly meetings, agility, progress

Requirements

✓ Unified participation paperwork (MOU, BAA, DUA, NDA)
≤ 1 month process
✓ Monthly run chart reporting (light)
✓ Preferred reciprocal onboarding process
1. Project lifecycle mgmt

2. Project vetting and selection process

3. Alignment of process and outcome unified measures

4. Implementation & run charts of results

Project Evaluation Matrix
Date: 1/1/1
Instructions: Score each category on a scale of 1-5 (1 = low, 5 = high)
(only fill in the non-shaded cells)

- Importance of problem
- Appropriateness of approach
- Potential impact
- Likelihood of success
- Interest in proposal

<table>
<thead>
<tr>
<th>Proposal</th>
<th>University</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Inverse propagation solution to ED no-shows</td>
<td>University State College</td>
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<tr>
<td>2. Reversing the aging process</td>
<td>Youth Fountain College</td>
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<tr>
<td>3. Optimal patient-centered medical apartments</td>
<td>Eastnorthern University</td>
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<td>4. A multi-site test of post-disease screening protocol accuracy</td>
<td>Implausible Research Institute</td>
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<td>5. Effect of optimal lighting in discharge instructions on non-preventable readmission</td>
<td>Hooneeds School</td>
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<td>6. CHOT-wide collaboration project all 4 schools</td>
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</table>
Standardized / scalable operations

- SOPs, visible work, flow, dashboards...
- Project identification, scoping, vetting, and selection processes
- Project team structure: Academic medicine model
- Unified “triple aim” measurement system
  - Overall program/award
  - Individual projects
- Formal engineering project design review calendar
Project lifecycle process

Phase
- Prelim. Criteria Matrix
- Team
- Scoping
  - Opportunity
  - Measures + Methods
- Gate
- Other (Capstone, Summer, NSF, etc.)
- Solution
- Gate
- Execution
- Gate
- Implement + Measure

Docs (project binder)
- Project Idea Form
- Scoping Doc
- Project Criteria Matrix (updated)
- Interim Project Reviews + Action Items
- Updated Test Plan
- Impact Doc + Dissem Plan
- Case Study

Communication
- Bi-weekly progress reports

Meetings
- Monthly project selection meeting
- Weekly rotating project technical design reviews (1/month)

Time
- 1 month
- 1 month
- 1 week
- 3-6 months
- 6-9 months
Project selection/prioritization (monthly)

- Potential impact
- Success likelihood
- IE method(s)
- Readiness, resources
- Spread potential
- Portfolio balance

### Project Evaluation Matrix (DRAFT – 8-16-2012)

<table>
<thead>
<tr>
<th>Project Evaluation Criteria</th>
<th>Likely Impact on Cost</th>
<th>Likely Impact on Care Delivery</th>
<th>Likely Impact on Health Outcomes</th>
<th>Amenable to ISE Methods &amp; Tools</th>
<th>Readiness to Launch at Start of Next Quarter</th>
<th>Likelihood of Success</th>
<th>Strong Internal Champion</th>
<th>Potential for Replication &amp; Spread</th>
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Scoring Guidelines: “0” = None; “1” = Low; “5” = Medium; “10” = High
## Formal project technical reviews

### Design Process Lifecycle

<table>
<thead>
<tr>
<th>Type</th>
<th>When</th>
<th>Purpose</th>
<th>Disposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDR (scope)</td>
<td>M1</td>
<td>Scoping, appropriate project, potential, measures, approve for production</td>
<td>Action items, tech review</td>
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<tr>
<td>PDR (preliminary)</td>
<td>M2</td>
<td>Appropriateness and approval of approach, baseline measures review</td>
<td>Continue, redirect, cancel</td>
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<tr>
<td>CDR (critical)</td>
<td>M4</td>
<td>Review of all technical details, needs, issues, action items and tasks</td>
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<tr>
<td>FDR (final)</td>
<td>M6</td>
<td>Review of action items, technical details, needs, resource allocation</td>
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<tr>
<td>IDR (implement)</td>
<td>M8</td>
<td>Review of implementation, testing, and evaluation plan/progress</td>
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Common Unified Measure Set ("pick list")
(Domains: Cost, access, health, wellness, flow, safety, etc)
## Award level measures

<table>
<thead>
<tr>
<th>Item</th>
<th>Process/leading measure(s)</th>
<th>Outcome/lagging measure(s)</th>
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| **D1: Impacts of projects (on triple aim)** | • Number health systems engaged  
• Number projects conducted, and balance across each aim  
• Survey of partners re: impact | • Number successful projects achieving goals, by aim  
• Total measured impact of projects across each aim |
| **D2: Increase workforce** | • New courses in health systems engineering x number times offered  
• Number faculty involved in this project as advisors or trainees | • Number trained BS and MS students graduated  
• Number training faculty now teaching elsewhere |
| **D3: Increase demand, visibility, perceived value** | • Publications and presentations  
• Case studies developed  
• Publications | • Requests for students, coops, interns, senior projects  
• Requests to join center  
• Media mentions |
| **D4: Scalable, spreadable, standardized** | • Project tool kits  
• Center launch and mgmt tools  
• Processes for syncing and sharing work across centers | • Replicated, spread projects  
• Tests of remote sites  
• Ability to coordinate work across locations |
| **D5: Sustainable** | • Number potential business models identified, vetted  
• New positions created | • Number retained and new academics and health systems  
• Continued ROI on 3 aims |

**D6: Learning about how to best do all this**