Program: Recruitment Innovation Unit (RIU)

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Program Administrator RIU
Objectives

• Describe what services the Recruitment Innovation Unit offers to support clinical trial recruitment at JH

• Highlight how usage of Twilio can enhance participant communication in clinical trials
Goals of RIU

• The RIU supports
  1- Innovative recruitment methods
  2- Effective and efficient recruitment and retention methods
  3- Community engagement in research

• Services we offer for recruitment?
  —Creation of customized, technology based tools and platforms to enhance the science of research recruitment (MyChart recruitment, customized digital recruitment campaigns, recruitment materials design)
  —Launch and manage centralized COVID research recruitment support resources
    ▪ HOPE registry
    ▪ Enhanced HOPE registry — coming summer 2022
<table>
<thead>
<tr>
<th>Type Service</th>
<th>Brief Explanation of Service</th>
<th>Date Service Started</th>
<th>Target audience/services provided to</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOPE registry</td>
<td>Centralized recruitment of COVID research participants</td>
<td>7/2020</td>
<td>JH research teams-31 research participants in registry-15,221</td>
</tr>
<tr>
<td>RIU research consultation</td>
<td>Providing research consultation service and providing help with creating recruitment plans that address challenges</td>
<td>4/2016</td>
<td>JH research teams- 67</td>
</tr>
<tr>
<td>Social Media Recruitment Service</td>
<td>RIU creates and launches the paid advertisements, monitors the campaign’s progress, and reports the metrics</td>
<td>8/2020</td>
<td>JH research teams=15 Recruitment campaigns impressions=675,000 Participants recruited=600+</td>
</tr>
<tr>
<td>MyChart Recruitment</td>
<td>Utilize Epic MyChart patient portal to send recruitment invitations</td>
<td>5/2016</td>
<td>JH research teams-71 Recruitment messages sent overall- 450,000 Messages sent in the prior year 142,000</td>
</tr>
<tr>
<td>Recruitment Design Service</td>
<td>Create of custom recruitment materials for digital and print placement (flyers, posters, brochures, etc)</td>
<td>5/2021</td>
<td>JH research teams=10</td>
</tr>
</tbody>
</table>
RIU Social Media Service

• Drafting a social media recruitment plan
• Feasibility queries for social media groups and platforms
• Creating, launching, and monitoring paid social media campaigns
• Creating recruitment materials for social media posts and advertisements
• Utilizing social media to engage research participants
• Creating recruitment materials for other recruitment strategies such as study flyers, brochures, etc
Social Media Strategy plan

• Campaign Objectives
  — Lead generation
  — Traffic

• Targeting Criteria
  — Location
  — Demographics (age, gender, etc.)
  — Audience targeting (interests, behaviors, etc.)

• Budget
  — Lifetime budget
  — Daily Budget
  — Schedule

• Ad content and graphics (IRB-Approved)
  — Heading, primary text
  — Instant form

• Links: Study website or survey

• Ad placement and schedule (Facebook + Instagram, etc.)
The advertising plan: What we do

• ICTR RIU:
  — No-cost free consultation with study teams to understand their recruitment needs
  — Work with study team to create messages
  — Identify target audience and key words
  — Create, launch and manage the ads

• Study teams:
  — Obtain IRB approval for social media recruitment
  — Cost of Ads
  — Share enrollment metrics
Recruitment Material Designs

Would you like to join a research study at Hopkins?

Study Title: Clinical utility of handheld breath analyzer (AIRE) to measure hydrogen

What to expect?
- We will show you how to use a device called a breathalyzer.
- This device will be used to record your breath two times a day for 6 weeks.

You will receive a $100 gift card in compensation.

Who can join?
- Adult ≥18 years
- Interested in joining research at the JHBMC Gastroenterology outpatient clinic

If interested, please contact us at: gbaraha1@jhmi.edu

Join a research study about food access and choices!

Who?
- Pregnant women aged 18 years or older and less than 30 weeks pregnant who are patients in the Diabetes in Pregnancy Program at UMMS

What?
- 15 minute online survey (with option for a follow-up interview)

Compensation:
- $20 Amazon gift card after the survey, $60 after interview

If you are interested in receiving the link to the survey, please contact research team at:
443-470-9535 cookingstudy@jhu.edu

Study Flyers
- Study Flyers
- Study Posters
- Brochures
- Infographics
The MyChart Recruitment Service

• Study teams provide inclusion and exclusion criteria for the query
• A computable phenotype is developed based on the eligibility criteria
• The query is run in Epic and returns a report of patients who meet the eligibility criteria
• Patients are sent recruitment messages in large batches through the patient portal
• The team has been used by 74 teams to date and almost 450,000 messages have been sent
MyChart User Representativeness:

- 53% of JHHS patients were active MyChart users.
- Similar to JHHS population in terms of age and sex.
- More likely to be white and non-Hispanic.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Johns Hopkins Health System*+</th>
<th>Active MyChart Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total N (%)</td>
<td>1,771,070 (100)</td>
<td>950,459 (53)</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>991,799 (56)</td>
<td>571,296 (60)</td>
</tr>
<tr>
<td>Male</td>
<td>779,271 (44)</td>
<td>378,946 (40)</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>442,768 (25)</td>
<td>189,978 (20)</td>
</tr>
<tr>
<td>White</td>
<td>1,027,221 (58)</td>
<td>617,697 (65)</td>
</tr>
<tr>
<td>Asian</td>
<td>88,553 (5)</td>
<td>67,359 (7)</td>
</tr>
<tr>
<td>Other</td>
<td>212,528 (12)</td>
<td>101,329 (11)</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Hispanic or Latino</td>
<td>1,558,542(88)</td>
<td>853,050 (89)</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>123,975 (7)</td>
<td>53,795 (6)</td>
</tr>
<tr>
<td>Unknown/Patient refused</td>
<td>88,553 (5)</td>
<td>43,614 (5)</td>
</tr>
<tr>
<td>Age in Years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-17</td>
<td>269,330 (15)</td>
<td>102,520 (10)</td>
</tr>
<tr>
<td>18-39</td>
<td>465,450 (26)</td>
<td>265,721 (28)</td>
</tr>
<tr>
<td>40-59</td>
<td>459,240 (26)</td>
<td>264,931 (28)</td>
</tr>
<tr>
<td>60-79</td>
<td>452,060 (26)</td>
<td>273,037 (29)</td>
</tr>
<tr>
<td>80+</td>
<td>125,010 (7)</td>
<td>44,236 (5)</td>
</tr>
</tbody>
</table>

*Includes individuals that have had at least one diagnosis, medication order, laboratory result, OR procedure since 9/1/2016. This data were captured on 02/02/2021

*Data in JHHS column do not include individuals greater than 90.
7-step Process

1. Overview of project with MyChart team
2. Intake with CCDA
3. Approval from MyChart Committee
4. Approval from IRB
5. CCDA writes query
6. Report is published in Epic
7. MyChart team sends out messages

<table>
<thead>
<tr>
<th>Color</th>
<th>Team</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yellow</td>
<td>MyChart Team</td>
<td>Cassie and Anna</td>
</tr>
<tr>
<td>Blue</td>
<td>CCDA</td>
<td>Guanyu Li</td>
</tr>
<tr>
<td>Orange</td>
<td>PACE/Epic</td>
<td>Matt Courtemanche</td>
</tr>
</tbody>
</table>
The service has grown rapidly since the COVID-19 pandemic forced study teams to reevaluated the recruitment plans

- Message batch sizes range from 1 to 1,000 messages
- The frequency of messaging ranges from daily to monthly
- The average response rate is 6.07%
  - Prior to March 2020: 1.87%
  - After March 2020: 7.04%.
- The response rate among team who have entirely online studies is 8.66%.
- The response rate for studies seeking healthy volunteers is 2.60%.
### Patient Satisfaction

- Just 5% said that research recruitment was not a good use of MyChart
- Over 40% stated that getting information about research via MyChart actually improved their experience of being a patient at Hopkins

<table>
<thead>
<tr>
<th>Change in Patient Experience</th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>56%</td>
</tr>
<tr>
<td></td>
<td>No change</td>
</tr>
<tr>
<td></td>
<td>28%</td>
</tr>
<tr>
<td></td>
<td>More satisfied</td>
</tr>
</tbody>
</table>

### Appropriate Use of MyChart
- 81.74%: Good use of MyChart
- 12.79%: No opinion
- 5.48%: Not a good use of MyChart

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**Institute for Clinical & Translational Research**
HOPE Recruitment Methods
Hopkins Opportunities for Participant Engagement

We recruit participants via social media, online advertisements, phone calls, MyChart, emails and text messages.

The survey uses branching logic to determine which studies the participant may be eligible for.

Participant is provided opportunity to select studies they are interested in.

Participant selection triggers email notification to appropriate study team.

Study team determines the participant’s eligibility and recruits participant if applicable.

Website: Johnshopkinshope.org
Utilization of Services Consult Service

67 Research teams have utilized the consult service

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Consults</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td>5</td>
</tr>
<tr>
<td>2021</td>
<td>12</td>
</tr>
<tr>
<td>2020</td>
<td>9</td>
</tr>
<tr>
<td>2019</td>
<td>10</td>
</tr>
<tr>
<td>2018</td>
<td>7</td>
</tr>
<tr>
<td>2017</td>
<td>13</td>
</tr>
<tr>
<td>2016</td>
<td>11</td>
</tr>
</tbody>
</table>

Consultation usually includes development of:

- Addressing recruitment barriers and challenges
- Developing customized recruitment plan
- Creating and delivering customized recruitment training for study teams
Get in contact with us

• Cassie Lewis-Land
  — clewis4@jhmi.edu
  — visit the website:
    https://ictr.johnshopkins.edu/service/recruitment/riu-consult/