CTTI RECOMMENDATIONS:
EFFICIENT AND EFFECTIVE CLINICAL TRIAL RECRUITMENT PLANNING

Clinical trial sponsors and investigators continue to face difficulties meeting recruitment goals, and the challenges appear to be increasing. Many explanations have been offered for why trials fail to recruit adequate numbers of participants. Little has been done to systematically examine recruitment obstacles, or share practices for overcoming them. **Actionable solutions are needed** since, without them, the promise of many trials will remain unfulfilled. It is time to move recruitment planning upstream and parallel to the clinical trial design process to ensure trial feasibility given the anticipated scientific, environmental, financial, time, and resource constraints.

Overall, recruitment must involve a critical level of thought that is more inclusive of all who might have influence on, or be influenced by, the development and implementation of a clinical trial. Additionally, the development of protocol elements must be done with attention paid to upstream activities that may have a downstream impact on recruitment.

This document should be used as a tool to guide a new approach to strategic recruitment planning (see Figure 1). CTTI offers these recommendations to enhance recruitment through thoughtful improvement of trial design, protocol development, trial feasibility, site selection, recruitment and communication planning, and performance monitoring in cooperation with all relevant stakeholders. Together with periodic stakeholder input, these recommendations for efficient and effective clinical trial recruitment planning will help optimize enrollment efficiency.

The following recommendations are intended to dovetail with both the Recommendations and Tools for Effective Engagement with Patient Groups Around Clinical Trials (PGCT) and Quality by Design Principles, Recommendations, and Toolkit (QbD).

When combined with the above recommendations and tools, trial designers can develop high-quality, efficient clinical trials that speed the delivery of new therapies to patients and improve public health.

Section I: Recommendations for Trial Design and Protocol Development

Rigorous attention to minimizing recruitment challenges at the trial design and protocol development stages is essential if the necessary culture shift is to be achieved—one that holistically integrates recruitment planning into study design and development. Study planners should spend the extra time necessary to engage with stakeholders and obtain their input upfront\(^1\) to ensure a trial will not be delayed by protocol amendments needed to remove barriers hampering efficient enrollment (e.g., broadening the eligibility criteria).

In addition, mentorship and training for investigators (junior and senior), trial designers, statisticians, and other stakeholders is crucial to the successful implementation of a holistic approach toward strategic recruitment planning that will ultimately enhance the quality and efficiency of clinical trials.

When considering the design and development of feasible clinical trials, trial designers should:

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\(^1\) For a helpful decision-making aid to use when engaging with stakeholders in study design & development, please see Tool #1 (Decision Tree).
1. **Identify and engage all stakeholders** as equal partners in the process

Obtain and incorporate stakeholder input and feedback on all of the following steps. Stakeholders may include patients, patient groups, investigators, sponsors/funders, sites, key opinion leaders, and providers, and consideration should be given to include appropriate representation on any advisory/concept/steering/protocol writing committees.

2. **Ensure the relevance of the scientific question to stakeholders**

Since motivations for a clinical trial can vary, views that influence the value of a study and reasons for participating cannot be underestimated. With engaged stakeholders, jointly determine the relevance of the scientific question, including whether there is an unmet need, the endpoints and outcomes are relevant to the patients living with the disease and the providers who treat them, and whether the question is broad enough to be generalizable to a wider population (when appropriate).

3. **Limit protocol complexity to reduce the burden of participation**

Limit procedures and visits to only those necessary to answer the scientific question and protect the safety of participants, and consider innovative alternatives to main site visits and data collection opportunities. Consider the impact of the invasiveness and risk of procedures and the length and frequency of visits on recruitment. Limit exploratory endpoints that may affect enrollment and increase the regulatory and logistical burden on sites as well as patients.

4. **Develop realistic eligibility criteria**

Identify and eliminate any criteria that are not necessary for the safety of participants or directly relevant to answering the primary research question.

5. **Optimize data collection to only what’s necessary to maintain patient safety and answer the scientific question**

Identify those data points necessary to address the primary and secondary objectives and those which are exploratory only. Collect only those data points necessary to maintain participant safety and answer the scientific question/endpoints.

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Section II: Recommendations for Trial Feasibility and Site Selection

These recommendations encourage proactively considering trial feasibility and site selection issues early in study development as a crucial part of recruitment planning. Many of these points can, and will, affect recruitment and retention. Hence, a thoughtful approach before study activation will alleviate downstream recruitment and retention challenges, further ensuring trial viability.

To ensure trial feasibility and appropriate site selection, trial planners should:

1. **Conduct an evidence-based trial feasibility analysis**

Formative research should be conducted to ensure that the logistical, motivational, and behavioral barriers to participation for patients, caregivers, and providers/investigators are well-understood and planned for. Planners should engage in an environmental scan or SWOT (strengths, weaknesses, advantages, and disadvantages) analysis.

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For tools and resources that can help you identify and engage with stakeholders, please see [Tool #2](#) (Stakeholder Identification and Analysis Tool).

When considering whether to include Patient Reported Outcomes (PROs) in your study, please see [Tool #4](#).
opportunities, and threats) analysis to ensure thorough understanding of how the environment (competition, policy, seasonal fluctuations, awareness, disease stage and rarity, satisfaction with current therapies, and economic concerns) will impact enrollment.

2. **Establish realistic metrics and milestones**
Set realistic expectations for completing trial enrollment by anticipating key factors that will influence site activation, screening, and enrollment trajectories. Map out anticipated events, even if estimations are rough, to identify potential pitfalls and bottlenecks.

3. **Develop an adequate budget and resources**
An initial recruitment budget should, at minimum, address the following: assuring the necessary time, resources, and funds for efficient implementation of any trial-specific recruitment strategies or tactics, with specific attention paid to site activation timelines and the projected (i.e., realistic) enrollment period.

4. **Ensure appropriate site selection**
Develop an ideal site profile that describes the necessary investigator experience, site capabilities, site infrastructure, institutional resources, and access to the relevant target population.

5. **Engage in suitable site performance monitoring**
Plan to meet with sites at regular intervals to discuss progress and develop and share specific, realistic, and transparent expectations of performance. Schedule regular and timely teleconferences with all site PIs and study coordinators to review enrollment and discuss site recruitment successes and challenges. Also consider creating a short survey for “eligible decliners,” persons who are offered enrollment but decline to participate. Do not hesitate to ask sites what they need to support efficient and effective recruitment and then be prepared to provide it.

**Section III: Recommendations for Recruitment Communication Planning**

The clinical trial enterprise often takes communication for granted in the trial development phase. However, when we take the time to deeply understand our audiences and stakeholders, we learn that they may see things from a different perspective than we assumed. To successfully complete enrollment for a trial, it is imperative to determine what each stakeholder group needs to hear in order to maximize their engagement and support. Using a data-driven approach, it is possible to solicit these insights.

By developing more engaging messages deployed through the right channels, it is possible to gain the attention of the right target audiences.

To optimize recruitment communication planning, trial planners should:

1. **Identify ALL stakeholders and partners**
Identify and prioritize the stakeholders with whom the trial team will need to communicate about the study, including (but not limited to) patients and their families/caregivers, patient advocacy organizations, the community of providers and other healthcare professionals, investigators, and site staff.
2. **Identify participant locations based on where participants may seek treatment and relevant information**
   
   Identify where potential participants are located, from whom they pursue treatment, where they seek information, and the various potential participant pathways into the study so that barriers and bottlenecks may be identified and addressed while the protocol is in development.

3. **Develop and test tailored messages**
   
   Work with stakeholders to develop statements and messages that convey why the trial is being done, why the research question is important, to whom the answer will matter, and the value propositions for the participant, study investigators/site staff, and community providers.

4. **Develop creative material and select appropriate channels for delivery**
   
   Work with stakeholders to develop appropriate creative material, including logos and taglines, then identify the best channels for reaching each of the target audiences by conducting formative research such as focus groups, social listening exercises, and semi-structured interviews.

5. **Develop a realistic communication budget**
   
   Develop budget plans early to ensure that recruitment costs are anticipated and covered. Determine the trade-off between time and costs: extra money spent on the front-end of a study to ensure the communication strategy is well-researched, appropriately targeted, and successfully deployed may be worth it to achieve efficient and effective communication and outreach efforts that help promote timely recruitment.

6. **Monitor and evaluate both the recruitment process and performance with meaningful metrics**
   
   Steps necessary to building a successful recruitment performance monitoring and evaluation plan include:
   
   - Securing stakeholder buy-in
   - Defining measurable recruitment goals
   - Identifying meaningful metrics for each goal
   - Defining success for each metric
   - Identifying the required data for each metric
   - Collecting process and performance data
   - Analyzing the data

   To the steps above, consider including an additional step when appropriate:
   
   - Embedding recruitment intervention studies into clinical trials and share the results (good and bad) to contribute to the development of best practices across different therapeutic areas, disease states and trial types

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*These recommendations are based on results from CTTI’s [Recruitment Project](https://www.ctti.net).*

*CTTI’s [Executive Committee](https://www.ctti.net) approved the recommendations.*

*Released in May 2016*

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*When considering how to monitor recruitment process and performance, see Tool #3.*
Figure 1. Framework for Strategic Recruitment Planning

**TRIAL DESIGN & PROTOCOL DEVELOPMENT**
- Identify & engage all stakeholders
- Ensure the relevance of the scientific question
- Limit complexity to reduce burden
- Have realistic eligibility criteria
- Optimize data collection

**TRIAL FEASIBILITY & SITE SELECTION**
- Conduct evidence-based feasibility analysis
- Have realistic metrics & milestones
- Develop an adequate budget & resources
- Ensure appropriate site selection
- Engage suitable performance monitoring

**RECRUITMENT COMMUNICATION PLANNING**
- Identify and engage all stakeholders
- Identify where participants seek treatment & relevant information
- Develop & test tailored messages
- Develop creative material & select appropriate delivery channels
- Have a realistic budget
- Monitor & evaluate process & performance
- Embed recruitment intervention studies & share results