How to Submit a Successful NIH Grant

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General Points to Consider

- Start early, make a timeline, stick to it
  - –Allow time for serious and rigorous pre-submission review by your mentors and colleagues
  - –Allow time for revisions after internal review
- Be absolutely clear and direct
- Tell a compelling story: let your passion come through in your proposal

You are telling a story

- Why is your study important?
- Why is this a key missing link in our knowledge?
  - –Systematically review the literature!
- What is new or innovative about your methods, populations, strategies?
- What is your approach in addressing your specific aims and testing your hypotheses?
- What is your concept's application, impact, and generalizability?

You need a great idea on an important topic

- Articulate a worthwhile ultimate objective: the major overarching purpose of the study
- *Specific Aims* are clearly related to one another & fit within the overall objective; an example:
  - Aim 1: What will you do first (explore barriers/facilitators)?
  - Aim 2: What's the core of your work?
  - Aim 3: How will you pull together your findings to take the research to the next level (*e.g.*, plan an intervention)?
- You should SELL your idea in the ABSTRACT and the SPECIFIC AIMS.

IMPACT and FOCUS

- **Impact = significance + feasibility**
  - –Choose a problem to:
    - Address an important, focused issue
    - Bring something new (e.g. method) to the field
    - Can feasibly be answered
  - –Stay close to your expertise
  - –Ask yourself how reviewers will assess study's impact
    - Talk to colleagues and NIH program officials

Scoring Criteria

- Significance
- Innovation
- Approach
- Investigative team
- Environment

HOW TO APPROACH YOUR GRANT

1. The research strategy!

1. SIGNIFICANCE
   - –Read, to gain expertise/ideas in the field (syst. rev.)
   - –You need a very good idea for your I.S. research
2. INNOVATION: What's new here? How will science change?
3. APPROACH: Be realistic, yet comprehensive
   - –Plan is easy to follow and activities are clear

HOW TO APPROACH YOUR GRANT

2. Investigators and Environment

INVESTIGATORS

- Ensure a qualified team of researchers
- Make sure there is expertise in each area of research and innovation
- Ensure biosketches adhere to requirements and structure them to cover the needed expertise and capacities

ENVIRONMENT

- Do the work where it can be done best and efficiently
- Make sure you have the resources and experience needed to conduct the research

HOW TO APPROACH YOUR GRANT
3. Budget Justification and Timeline

- Submit a realistic budget – there are no page limits
  - Well justified
  - For personnel, you can expand on their expertise here to remind reviewers about their competencies
  - Clarity about each year of funding and why these expenses are needed (make sure you know the allowable expenses)
  - Consider putting in an organizational chart in the budget
- Timeline should be realistic and reflect the research activities

APPROACH: Be Realistic

- Ask questions answerable with the methods that you propose
- Provide tantalizing preliminary data as evidence that the questions are worth asking and answerable BY YOUR TEAM
- Propose state-of-the-art technical approaches within your team's expertise – innovation points!
- Always be crystal clear as to your "deliverables"
- Proposed work volume compatible with available time & money
- Always be realistic, i.e., not too ambitious or optimistic
  - Tell the reviewers what might go wrong and what you will do

CLARITY: The Key to Success

- You will have some reviewers who are NOT experts in the field
- Assume some ignorance on the part of the reviewer
- Provide an accessible conceptual background
  - A visual depiction using diagrams & cartoons – it breaks up the page
- Use outline, italics and format for **emphasis**
  - Define abbreviations and acronyms
  - "Strategic redundancy" to clarify and repeat key points
- Make the grant appear visually appealing

Key points

1. Clarity of figures and tables that enhance your grant:

Imagine that you are on the review committee at the NIH seeing the support materials for the first time.

-- Just copying tables from journals doesn't work

-- Create high quality graphics that guide

Use of Tables and Figures to Present Data

Comparison of Selected Sites for a Trial

large central hospital along with several primary and secondary PHCs, where secondary clinics typically have physician coverage and laboratory resources, while primary PHCs have at least one physician and minimally have nursing and medication dispensary services, though other services may be available.

Table 1: Characteristics of the Hubs and Spokes in Urban Lima

Characteristic	HUBS: Secondary Health Center (SHC)			
	Dos de Mayo	**Loayza**	**Maria Auxiliadora**	**Unanue**
Lima Region	Downtown (Central)	Downtown	South	East
Health Districts	Surquillo, La Victoria, San Borja, San Luis	Cercado, Breña	VMT, SJM, Chorrillos, Barranco, Miraflores	El Agustino, La Molina, Cieneguilla,
Patients/district	739,232	396,884	1,242,750	1,313,867
Pop. Density/km^2	15,513	13,187	9,083	6,228
Total PWH	4,667	3,073	3,598	2,923
PWH in SHC	4,112	2,569	3,084	2,282
PWH in PHC	555	504	514	641
SPOKES: Total (1º/2º) PHCs	15 (10/5)	18 (10/8)	77 (26/51)	55 (24/21)
PHCs w/PWH, N	3	7	3	2
Range of PWH, N	19-513	1-426	12-399	60-581
ID specialists, N	11	13	5	10

Preliminary Studies: The investigative team brings considerable experience with several decades of experience

Defining Your Outcomes

Table 2 provides a list of measures we will assess using the RE-AIM Framework:

Table 2: Implementation measures within the RE-AIM framework (represents source of data)

Domain	Definition	PWH	Clinicians at SHC (SHC-C) & PHC (PHC-C)	Policy-makers (MoH)
Reach	Absolute number, proportion, and representativeness of PWH who are considered for decentralization	Number of PWH who transfer from SHC to PHC in Lima and outside Lima (ED)	Characteristics of SHCs and PHCs (size, location, staffing) (S and ED)	MoH plans for decentralizing in Lima and throughout Peru (I)
Effectiveness	The extent to which PWH are transferred from SHCs to PHCs and consequently are RIC and achieve VS	% of PWH in each district: a) in PHCs; b) VS; and c) RIC. 2º outcome: mortality (ED)	Clinical confidence, satisfaction, collaboration, role clarity, self-efficacy (S)	Perceived impact of treating PWH relative to other conditions (II)
Adoption	The extent to which new PHCs in each hub begin to accept PWH	Not assessed	Level of interest in treating PWH (S), treating PWH (S & ED)	Interviews with MoH & administrators at SHCs and district PHCs (II)
Implementation	NIATx and ECHO are delivered as intended	Ease of transfer, experience with PHCs, confidence in treatment (NGT)	NIATx (C) & ECHO fidelity (C); Confidence in transferring and managing PWH (S); Self-efficacy (S); Collaboration and workplace climate (S)	What are the opportunities to decentralize outside of urban Lima and how? (II)
Maintenance	When and how much decentralization will occur in Peru? (ED)	Extent to which they want to continue care in PHCs (NGT)	Recommends decentralization to others (S/NGT); continued HIV care in PHCs	How will decentralization expand to other regions? (II)

ED: electronic database; NGT: nominal group technique; II: in-depth interviews; S: surveys; C: checklists; SD: stakeholder discussion

C. Specific Aim 3: Using a step-wedge design with 4 hub/spokes (4 SHCs+165 PHCs), we will conduct a Type 2 hybrid implementation trial using the RE-AIM framework to assess the extent to which decentralized services are adopted and scaled-up in PHCs over 24 months of observation using NIATx combined with Project ECHO to develop and enhance a Hub and Spoke model. The implementation outcomes will include the proportionate increase of PWH: a) treated in PHCs; b) retained in care; and 3) achieving VS. Adoption by PHCs to accept PWH, fidelity to NIATx and ECHO, and concordance with decentralization guidelines will also be assessed.

1. Study Design: We will spend the first year completing Aim 1 and collecting baseline effectiveness outcomes. We will deploy a stepped wedge design to test the following hypotheses: 1) the proportion of PWH in care at PHCs in each district will increase over 2 years; 2) the increase in PWH treated in PHCs will result in significantly higher RIC and VS in each district over 2 years; 3) engagement in Project ECHO will result in increased clinical competence and confidence in treating PWH, which in turn will improve RIC and VS; and 4) engagement in the NIATx bundle of implementation tools will result in a higher proportion of PWH in each distract treated in PHCs. The stepped wedge is ideal for evaluating service delivery interventions especially when each step (group) starts at a different baseline, has different participation levels and until all clusters are exposed.[1] They do not rely on individual patient recruitment and outcomes, are optimized when outcomes come from standardized surveillance systems, minimize the risk from temporal trends (e.g., disruptors like COVID-19), and avoid potential unethical allocation to an arm where there is evidence for its benefit (e.g., decentralization).[1] It also allows study of the implementation processes over time.[120] Figure 3 provides an overview of the design. Hubs will be randomized anonymously 3 months before allocation to allow for rapid assessment of barriers and facilitators just before

Month	0-6	7-12	13-18	19-24	25-30	31-36	37-42	43-48	49-54	55-60
Group 3*		Control	Control	Control	NIATx + ECHO	NIATx + ECHO	NIATx + ECHO	NIATx + ECHO	Main-tain	Analyze
Group 2		Control	Control	NIATx + ECHO	NIATx + ECHO	NIATx + ECHO	NIATx + ECHO	Main-tain	Main-tain	Analyze
Group 1		Control	NIATx + ECHO	NIATx + ECHO	NIATx + ECHO	NIATx + ECHO	Main-tain	Main-tain	Main-tain	Analyze

Figure 3: Stepped Wedge Design

*Group 3 will consist of two Hub/Spokes

Is it Important?
Identifying Implementation Gaps

A.2 HIV Service Delivery in Malaysia: HIV care in Malaysia has been decentralized to primary healthcare clinics (PHCs) called Klinik Kesihatan. Each PHC provides services to citizens mostly where they live, but people can receive care at the clinic of their choice. While all PHCs can provide HIV services, their experience providing HIV services to PWID is localized where HIV is mostly concentrated. All PWH at PHCs receive free care including laboratory testing and first-line ART. The pathway to HIV care is complex and includes HIV testing → confirmatory testing → followed physician visit → more HIV assessments (CD4, VL, CXR, etc.) → clinician reassessment → social worker provides vitamins for 30-90 days to practice adherence → social workers affirms adherence → physician prescribes ART for 30 days. Such delivery systems increase *internalized stigma* through the promotion of fear of dying and repeatedly telling PWID they are "non-adherent" patients and not worthy of immediate treatment. *Perceived stigma* is enhanced when few positive messages reinforced during HIV disclosure interactions with staff and little social support provision. *Enacted stigma* is heightened as PWH wait for their "appearance" to worsen without ART and they fear death or illness as they wait for medication. Staff, in the absence of seeing PWID succeed in their treatment, as they increasingly become estranged from the clinic, do not see HIV as socially normative as they might see, for example, in a less stigmatized patient with diabetes.

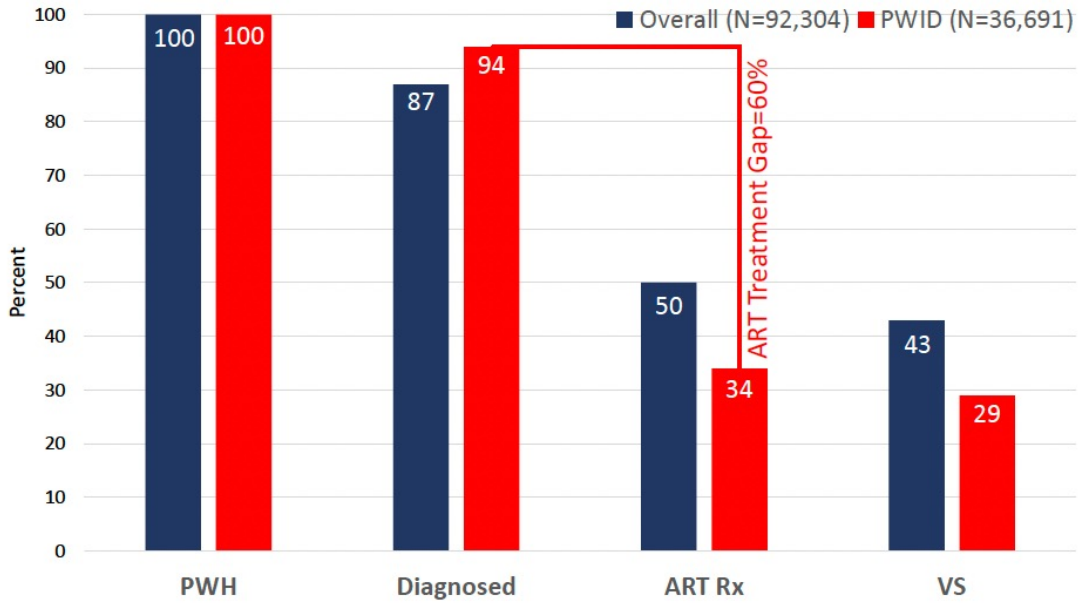
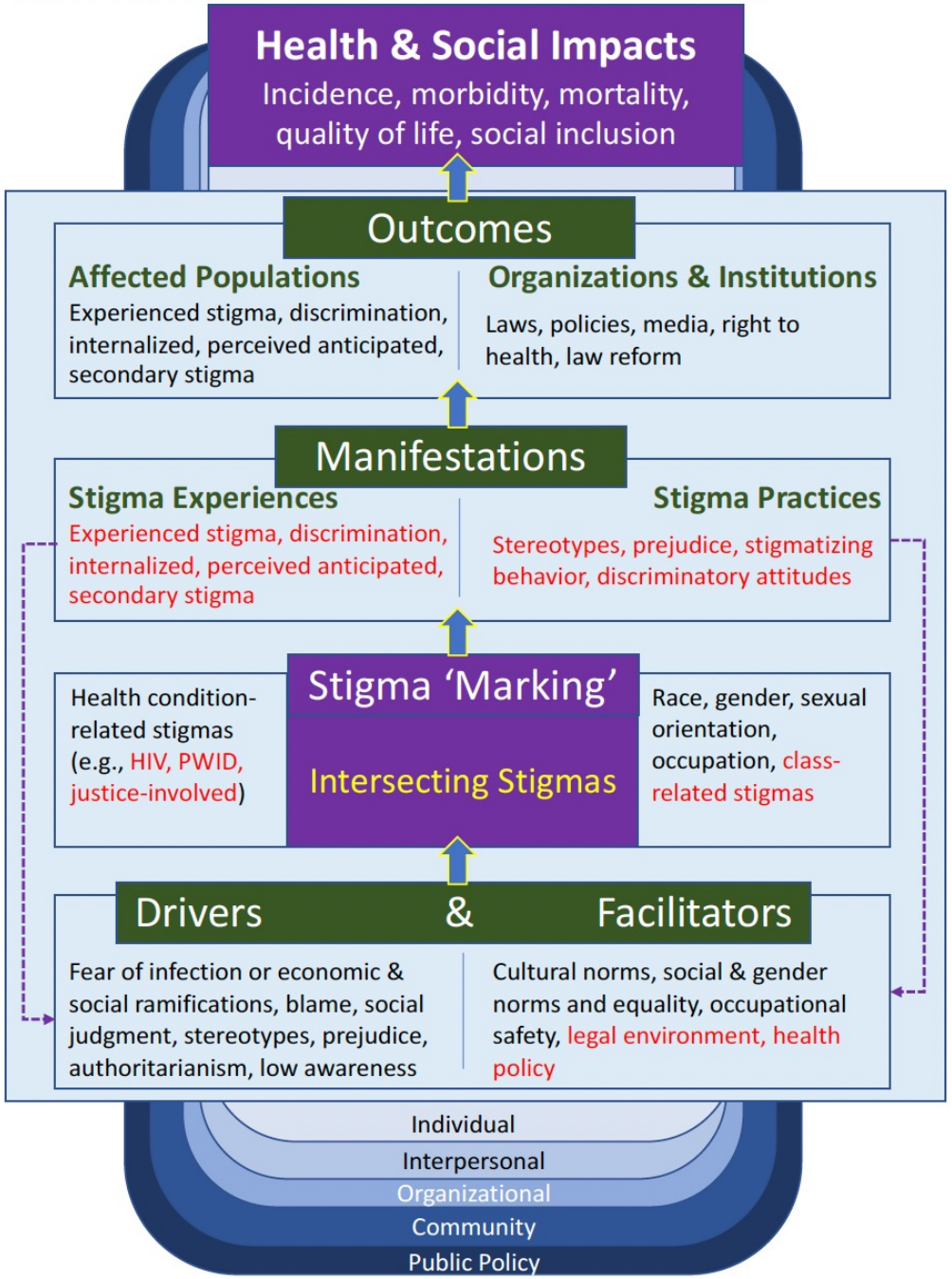


Figure 2: Health Stigma and Discrimination Framework



Depicting Complex and Interactive Concepts *Stigma*

Key Points

2. Avoid jargon & acronyms:

- Unless your audience ONLY has persons in the same discipline, you must remind people about diseases, symptoms, statistics, & lab methods
- If you must, create a legend or list of commonly used terms

Glossary or Commonly Used Terms

II. Research Strategy
A. Significance

A.1 HIV Epidemic and Suboptimal HIV Treatment Outcomes in PWID: Multiple studies document suboptimal outcomes along the HIV treatment cascade in PWID,[33] which can be improved for those who receive maintenance with opioid agonist therapies (OAT) like methadone or buprenorphine.[34,35] This is especially true in countries like Malaysia where HIV is concentrated in PWID (40% of all cases). While the ART treatment gap is especially poor in Malaysia, it is especially high (60%) for PWID who have higher rates of diagnosis, mostly because of mandatory testing in prisons, but low ART prescription. Once ART is prescribed for PWID, however, viral suppression (VS) is especially high (85%), suggesting that once prescribed ART, adherence is high, which has been confirmed in a systematic review.[34] Our studies in Malaysia suggest that HIV clinicians are 18.9 times more likely to withhold ART from PWID than a PWH who acquired it heterosexually. If the PWID is prescribed methadone, however, physicians were 2.9 times more likely to withhold ART. PEI were also 12.9 times less likely to receive ART.[9] *These findings affirm high levels of stereotypes and prejudices toward PWID.*

Glossary

ART: antiretroviral therapy
KAP: key affected populations
MoH: Ministry of Health
MOUD: medications for opioid disorder
OUD: opioid use disorder
PEI: persons experiencing incarceration
PWH: people with HIV
PWID: people who inject drugs
RS-ART: rapid start antiretroviral therapy
SSP: syringe services programs
TasP: treatment as prevention

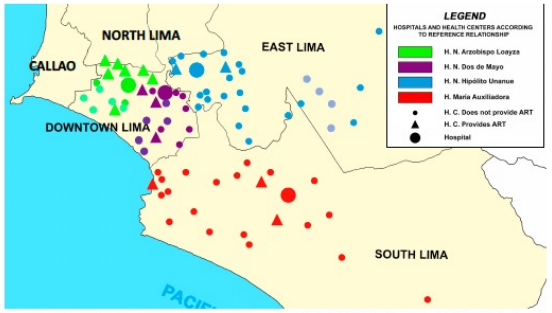
Key Points

3. Make your grant appealing to the eye

- It takes discipline and experience not to cram in everything; be selective!
- Better to cut than to cram, e.g., Arial 11 font, 6 point spacing between paragraphs
- Break up page with figures/tables

needing more intensive services to the hub for treatment. Transition between hubs and spokes is bidirectional as needed clinically. It has been used in urban and rural environments and is designed to optimize patient needs, yet does so in a manner that fosters resource conservation, clinical collaboration, reduces costs to health systems and patients, and optimizes patient outcomes by improving access to the right level of services that are more convenient.[73-76] The hub provides specialty expertise (i.e., HIV care), especially when care is complex, yet HIV has become more simplified allowing PHCs to assume increased responsibility as clinical confidence at PHCs increases (e.g., through ECHO) so that they may adopt screening, evaluation and treatment of newly diagnosed PWH. The hub and spoke model has the benefit of providing comfort to both SHCs and PHCs as they share the same patient pool and tele-educational platforms like ECHO keep both hubs and spokes connected through collaborative learning. Drs. Madden and Altice have successfully used this model for scaling up medications for opioid use disorder for infectious diseases physicians[77] as well as building and expanding this program throughout Vermont in Project MOhRE. [77]

2. APPROACH



Overview: Using the RE-AIM framework, we will create guidelines for decentralizing HIV care and explore the barriers to decentralization prior to implementing decentralization. Two sets of guidelines will be developed using the Delphi method (a: guidelines for decentralization; and b) guidelines for measuring QHIs, which can be used as checklists for quality care). Before activating implementation in each site, we will explore the multi-level (patients, clinicians, administrators and MoH) barriers to decentralization. Barriers will be used to guide implementation and change projects using NIATx. Project ECHO will be combined with NIATx to provide clinical skills to PHC staff and delivered in a hub and spoke model to connect SHC and PHC staff in delivery of HIV care. Decentralization will occur through guideline concordance, facilitated through NIATx and ECHO. The stepped wedge trial will take place in 3 regions of Lima involving 13 districts, where >37% of all diagnosed PWH receive care. The 4 hubs (SHCs) are large with over 3,000 PWH with an average of 483 patients per specialist.

Context: The Greater Lima metropolitan area (Greater Lima) in the Lima region has 11 million people and is divided into 4 regions (North, Central [Downtown), South, East) and 43 districts. The regions differ markedly in terms of population density, income level and number of PWH (Table 1). HIV services are overseen by the MoH and healthcare delivery involves both secondary (SHCs) and primary health clinics (PHCs), with the SHCs being linked to a large central hospital that has multiple specialty clinics. All HIV testing and ART is provided free by the MoH. Most of the cases of HIV in Greater Lima are in the districts where we propose decentralization, with the largest number of PWH in care and the proposed hubs and spokes in the adjacent figure. SHCs include a large central hospital along with several primary and secondary PHCs, where secondary clinics typically have physician coverage and laboratory resources, while primary PHCs have at least one physician and minimally have nursing and medication dispensary services, though other services may be available.

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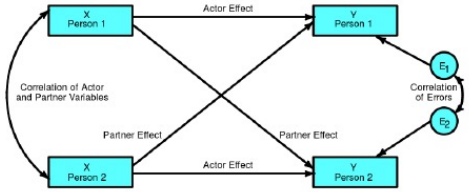
Preliminary Studies: The investigative team brings considerable experience with several decades of experience assessed, with continuous variables centered for these analyses to represent interactions. Similar modeling will be conducted for clinicians through stigma manifestations like stereotypes, prejudice and discrimination.

APIM with Indistinguishable Dyads



7.C Dyadic and group considerations (interdependence) analyses: The clinician–patient interaction is an interpersonal process that is fundamental to patient-centered care. Clinicians and patients, however, are typically studied at the individual level, which ignores the relationship between the two.[66] Interpersonal perception theory holds that interpersonal relations occur such that individuals involved in an interaction (e.g., the provider/patient dyad)[67] reciprocally influence each other and do so over time,[68-71] and independently contributes to the treatment process. Consequently, the dyadic interaction must be assessed using a dyadic analysis approach.[67,72] The few studies that address the dyadic interdependence of the dyads related to health, mostly between clinicians and patients, show that the perceptions between them are often incongruent at baseline,[66,72] which questions the presumed key tenant of a negotiation-based framework to the medical decision-making process and warrants further research using a dyadic assessment. Dyadic analyses have been applied to stigma (mostly patient-caregivers or partners),[73-79] but not in patient-clinician dyads. Dyadic analyses in stigma, however, have not been analyzed longitudinally and not in response to an intervention – structural or otherwise. It is important to point out that dyadic designs are not limited to dyads and allow modeling of complex relationships involving more than one interaction partner. For instance, the one-with-many design is suitable to model multiple clients that may have one provider, so the data would consist independently other clients with the same provider nested within various clinical staff members. Dyadic designs accounts for three interdependent sources of variance in the data: the provider, the client, and the relationship effects, which may vary over time.[69] For example, we hypothesize that stigma toward PWID and intention to discriminate will change, depending on the type of interaction (e.g., if patients receive RS-ART improve their health over time, despite different clinician expectations, then we anticipate stereotypes and prejudice to decrease (e.g., feeling thermometers), while their patients experience less enacted and potentially perceived stigma over time. Over 6 months, internalized stigma may decrease as patients achieve "clinical" success. Or, if interactions go poorly, then we may anticipate the opposite, but in the absence of careful examination, we will not know how RS-ART may work as a stigma reduction intervention. The mechanism of dyadic analysis has been recently extended to model the group effects and contextual group level influences on individual outcomes, which is particularly relevant to this proposal.[190,191] We will use the group actor–partner interdependence model (GAPIM),[142] which has its foundations in dyadic analysis, but has been extended to groups to examine behavioral change (e.g. receive ART, ART adherence, VS) and attitudes (e.g., trust in physician, social support, stigma, stereotypes) that are inherently situated within groups and moves beyond the limitations of individual-level analyses.[192-194] The GAPIM specifically addresses the limitation of assuming independence of individuals in an evidently interdependent context of a group. A unit of analysis in a group composition model is the group, and data are typically collected from members in each group, across all possible groups, resulting in a group-level effect.[191,195,196] In this approach, data from individuals creates a group-level term. To demonstrate, if data are collected on each client's intention to start and adhere to ART and achieve VS, a model would investigate whether the aggregate level of intentions in a group impacts an individual outcome. The group effect is the group mean of all group members' scores, excluding the focal individual. We can also examine the extent to which dyads in the PHC and prison context differ, including their trajectory over time as those in prison may harbor differing levels of trust both in the institution and in its providers. The model decomposes group variance into individual and dyadic group processes, and determines the group effect by the variance that is not at the individual nor dyadic level.[191] The model allows the examination of moderators, such as stereotypes and prejudice,[197,198] and can be specified with a myriad of popular software packages (Mplus, R, AMOS).[196]

6. Sample Size and Power Analysis: For this pilot, we anticipate 125 PWID and 10-12 ART prescribing clinicians. Though we cannot predict the effect size for RS-ART, other dyadic analyses between PWH and caregivers in stigma constructs ranges from 0.11 to 0.21[199] and 0.18 and 0.29 and 0.12 and 0.22 between HIV discordant PWH in China[75] and Mozambique.[78] In the current sample, we anticipate high baseline stigma scores due to intersectional stigma (HIV, substance use, criminal justice) and the Malaysian context, allowing for higher levels

Make Presentation Easy to Read

- Think of the reviewer (each reviewer reads 6-12 applications) → what type of document would YOU like to read?
- Avoid verbosity; use “friendly formatting”
- Adopt a unique style of presentation that engages the reader
- Give the reviewer the key elements that he/she can incorporate into a favorable review (*e.g.*, innovation)
- Good outline and cross-referencing
  - Do not force the reviewer to hunt through the grant application for information (“See Section 4.3.4.1 for more detail”)

What is a clear hypothesis (examples)?

- We hypothesize that people with HIV will improve their CD4 counts by providing good nutrition.

- We hypothesize that nutritional advice and oral ingestion of 7 daily multivitamins with WHO/OMS recommended doses will correlate with a CD4 cell count increase of 50 cells/μL in persons with HIV who have a baseline count of 100-349 cells/μL over a 12-month period, compared to similar persons given nutritional advice alone.

Reasons why grant applications are not funded – 1

- Poor organization of the application
- Work has been done before (significance)
- Sounds like an exercise in data collection
  - *"Fishing expedition" without clear H_o testing or etiological discovery*
- Work too descriptive; needs to be novel or interventional (innovation)
  - *"OK, so you showed that there is more lung cancer in Chinese men (or obesity in Indian diabetics); now what?"*

Reasons why grant applications are not funded – 1

- Objective not very important to health and disease
  - "This subject is of some interest…"
- Serious difficulties with the Approach
  - Lack of sufficient detail &/or unconvincing preliminary data
  - Work may not be feasible, e.g., sample size issues
  - Overly ambitious for the money/time
  - Too many methodological flaws – ensure details
- Inadequate institutional support

Common Pitfalls for New Investigators

- Overly ambitious
  - –“too much, given the time and money”
- Underdeveloped plans
  - –“too little detail provided”

Other Reasons for a Poor Score

- Lack of new or original ideas
- Hypothesis ill-defined, superficial, unfocused, or unsupported by preliminary data
- Methods unsuitable, not feasible, not rigorous or not likely to yield results (*e.g.*, low stat power) – or may not be innovative
- Design not logical, inappropriate instrumentation, poor timing or conditions
  - Limited access to appropriate population
  - Data management and analysis vague, not rigorous
- Inadequate PI/team expertise, or knowledge of field, or time committed by key team members
- Poor resources or facilities; no documented support from parent institution

Funding Opportunities

- Unsolicited grants (R01, R03, R21, R34, P01)
- Training Grants (F30, F31, F32, K01, K12, K23)
  - –K43 for international scholars – 5 years of training
- NIH Funding Opportunity Announcements (see NIH Guide, http://grants.nih.gov/grants/guide/index.html)
  - –Program Announcement Request (PAR)
  - –Requests for Applications (RFA)

Resubmission: Resilience and Flexibility!

1. Persistence pays off in the grant process!!
2. It is critical that a resubmission carefully responds to the critiques by revisions or by more clearly defending the original rationale
    i. Likely that most of the same reviewers will see the second submission
    ii. Reviewers will see the original summary statement and look carefully to see how the application has addressed the problematic issues (similar to a manuscript process)

When to Revise & Resubmit

- How do you know when to revise your application and resubmit (vs. beginning over with a new idea)?
  - –If reviewers thought your basic idea was interesting and important, the application may be worth revising
  - –However, if they felt the objective/aims were weak, best to begin with a new idea
- If the problems can be fixed, revise the application and resubmit it (to same SRG)

Remember, NIH is not your only option

- Wellcome Trust
- Bill and Melinda Gates Foundation
- Other foundations
- In-country donor agencies (DFID, USAID, GTZ, NORAD, CIDA, SIDA, DANIDA, and other European Community nations)
- Check the Web and your grant office
- Overseas equivalents of the NIH: MRC, ANRS, CAS/China CDC/MoST, ICMR

What are the best local sources?

- Government
- Private Sector
- Non-profit Sector
- Donors
- International agencies
- Partnerships with nearby nations

QUICK REVIEW SLIDES
Write with self-confidence and clarity

- Aims: What and why
  - –Hypothesis-driven research
- Significance: Why should we be interested?
  - –Give preliminary data
- Approach: Describe methods
  - –Why is this realistic and likely to work?
  - –How will you do the work and cope with challenges?

Significance

1. Significance

- Does this study address an important problem?
- If the aims of the application are achieved, how will scientific knowledge or clinical practice be advanced?

Make clear the SIGNIFICANCE of the research

- Ground your work in the literature
- Be imaginative, but realistic
- Keep it easy to understand
  - Present in “educated layman’s” terms whenever possible
  - Be brief, limited space is allotted for your grant
- “Why do we care deeply about this research question?”

Approach

2. Approach

- Are the…design, methods, and analyses adequately developed, well integrated, well reasoned, and appropriate to the aims …?
- Does the applicant acknowledge potential problem areas and consider alternative tactics?

APPROACH: Research Strategy

- Provide enough background so that the reviewer fully appreciates what you are proposing, including preliminary data
  - Extraneous information is distracting
- Make strategic use of diagrams and cartoons to present a hypothesis, an behavior model, an intervention, etc.

Innovation

3. Innovation

- Is the project original and innovative?
  - –Does the project challenge existing paradigms or practice?
  - –Does it address an innovative hypothesis or critical barrier to progress in the field?
  - –Is it using new and better methods?

Investigators

4. Investigators

- Are the investigators appropriately trained and well suited to carry out this work?
- Does the investigative team bring complementary and integrated expertise to the project?

Environment

5. Environment

- Does the scientific environment in which the work will be done contribute to the probability of success?

Some thoughts on types of grants

- R01/U01
- R61/R33
- R34
- R21
- R03