

Pfizer Global Medical Grants and Global Bridges at Mayo Clinic
Quality Improvement Request For Proposals (RFP)

*Antimicrobial Stewardship (AMS) Programs to
Address Health Inequities arising from Socioeconomic Disparities
in USA, Europe, Japan, South Korea, Australia and New Zealand*

Background

Pfizer Global Medical Grants (GMG) supports the global healthcare community's independent initiatives (e.g., research, quality improvement, or education) to improve patient outcomes in areas of unmet medical need that are aligned with Pfizer's medical and/or scientific strategies. One such strategic priority is decreasing the disproportionate burden of poor health outcomes faced by patients with lower socioeconomic status and / or from underserved populations, who receive healthcare in resource-limited centers within high-income countries, specifically to address health inequities relating to treatment of infectious diseases.

Global Bridges Healthcare Alliance, based at Mayo Clinic, is dedicated to supporting global communities of practice to advance evidence-based patient care. Since 2014, Global Bridges has worked collaboratively with Pfizer GMG to support medical education and quality improvement programs in multiple clinical areas, including tobacco dependence treatment, oncology, amyloidosis, and anti-microbial stewardship.

Date RFP Issued

Thursday 21 October 2021

**Rationale and Purpose
of this RFP**

- The purpose of this RFP is to solicit programs that have identified a disparity related to socioeconomic factors (such as race, culture, gender, and age) within resource-limited healthcare centers that disproportionately impacts appropriate antimicrobial use (antimicrobial stewardship) for that socioeconomic population, and that propose an intervention to address the disparity, to improve measurable patient outcomes for these underserved patient communities.
- Inappropriate use of antibiotics results in adverse events (including death), increased microbiological resistance, and wasted resources.^{1,2}
- Patients in disadvantaged socioeconomic groups are more likely to be prescribed inappropriate antibiotics to treat their infections. Studies found that inappropriate use of antibiotics was associated with the following factors: culture, gender, educational status, marital status, age, number of children, health insurance and poor health care services.³
- Antimicrobial resistant infections disproportionately affect underserved populations and certain ethnic populations, related to socioeconomic status.
 - In England, Asian patients were more likely than White British subjects to have ESBL bacteriuria.⁴
 - In US, in severe infections (sepsis), the largest determinant of death was socioeconomic status with black patients 2x higher compared to white

patients.⁵

- In US, hospitalized Black or Hispanic sepsis patients are 7% more likely to die than white, while those categorized as "Asian and Pacific Islander" or "Other" race are 18% or 21% more likely to die than white patients.⁶
- Even in high-income countries, patients with lower socioeconomic status may not have equitable access to appropriate antimicrobial therapy because of the lack of adequate and effective antimicrobial stewardship (AMS) programs in their local healthcare facilities. As a result, these patients may receive suboptimal care reflective of racial and socioeconomic inequalities negatively impacting their outcomes and the cost of care.
- In addition, even in developed healthcare systems, wide disparities exist in the availability of resources to implement antimicrobial stewardship initiatives in hospitals.⁷
 - Faced with the problem of insufficient on-site resources to implement stewardship programmes as typically seen in large teaching hospitals, other options may be used for smaller facilities or facilities with limited access to resources.
 - As an example of this disparity and potential interventional approaches to address this, a 500-bed Danish University hospital that did not have onsite clinical microbiology service or staff reported on the steps undertaken to tackle multidrug resistant infection. In the absence of an on-site antimicrobial stewardship programme, they described their successful collaboration with a programme at a larger hospital.⁸
- The inequitable access to AMS programs increases the inappropriate use of anti-infectives, hinders access to novel anti-infectives, and consequently disproportionately impacts the burden of AMR.

Clinical Area

Anti-infectives

Geographic Scope

USA, Europe, Japan, South Korea, Australia and New Zealand

Eligibility

- Only organizations are eligible to receive grants, not individuals or medical practice groups.
- Institution must be part of a network of hospitals or institutions to ensure dissemination of learnings/best practice and to achieve broadest impact.
- The Project Lead must have a medical or postdoctoral degree (MD, PhD, or equivalent), an advanced nursing degree (BSN with a MS/PhD or Doctorate of Nursing Practice), or a degree in Pharmacy, Microbiology or Epidemiology.

Review, Funding and Administration of Projects

Project proposals will be reviewed and recommended by an independent expert advisory panel. Projects selected for funding will be funded directly by Pfizer Inc.

Funded projects will be led independently by the grantee organizations. Operational and technical guidance for funded projects will be provided by Mayo Clinic, as needed.

Characteristics of a Successful Proposal

- Projects that will be considered for support will focus on intervention programs to address clearly identified local antimicrobial therapy inequities for underserved populations, aligned to social determinants (such as antibiotic usage w/age, gender, race, socioeconomic status) in resource-limited centers or centers without access to antimicrobial stewardship programs.
- It is our intent to support quality improvement projects. The aim of the projects will be interventions inside hospital settings.
- Facilities with limited access to resources or hospitals with primarily underserved patient populations (aligned to social determinants above) will be prioritized as the recipients of the Quality Improvement Grant. However, proposals that involve collaboration of the proposing center with larger academic hospitals to support implementation of intervention programs within limited-resource settings would be in scope.
- Proposals must include locally collected data on the antimicrobial stewardship (AMS) inequity (e.g., antibiotic usage with age, gender, race, socioeconomic, region) that describes the current base-line state at the institution (i.e. prior to any proposed intervention) and the anticipated outcome(s) of the proposed intervention.
- In addition to the proposed intervention steps, successful proposals must include a plan to collect post-intervention data to measure and to assess improvement in the identified inequity, and also publish data/outcomes to share lessons learned across the health-care system.
- It is expected that the intervention programs selected for funding will be initiated in mid-2022 and be no more than 24 months in duration.

Out of Scope of this Call

It is not our intent to support clinical research projects. Projects evaluating the efficacy of therapeutic or diagnostic agents will not be considered. Additional examples of **out of scope** projects include clinical research projects, basic science research, prevalence studies, and registry development.

Projects may include an educational element but initiatives that solely focus on knowledge improvement (e.g., journal clubs, grand round programs, lectures) will not be eligible for consideration.

Funding Available

Individual projects requesting up to \$50,000-\$100,000 USD will be considered. The estimated total available budget related to this RFP is \$400,000 USD.

We anticipate supporting proposals from facilities with limited access to resources or smaller hospitals as a priority.

How to Submit

Please go to <http://www.cybergrants.com/pfizer/QI> and sign in. First-time users should click "Create your password".

- For the question "Are you replying to a Request for Proposal as part of the Competitive Grant Program?" select Yes
- Select the following Primary Area of Interest: Infectious Disease – General/Non-Specific

- Select the following Competitive Grant Program Name: **2022 HOS G: AMS Health Equity (Global Bridges)**
- Complete all required sections of the online application. See Appendix A for details.
- Please note that applications must be submitted in English.
- If you encounter any technical difficulties with the website, please click the “Technical Questions” link at the bottom of the page.

A pre-application webinar to answer questions will be held via Zoom on Wednesday, 10 November at noon CST. Register using this [link](#).

Timing

Proposals must be completed in the CyberGrants system no later than **5:00pm New York time on Wednesday, 15 December 2021. Applications received after this date will not be reviewed.**

All applicants will be notified of the outcome of their application by email in March 2022. Applicants may also be contacted to provide further clarification to support the review.

If your grant is approved, the agreement is expected to be signed by both parties within 4-6 weeks of approval and without change. Please click [here](#) to view the core terms of the agreement. The agreement will be with Pfizer Inc. (based in the United States).

Anticipated project start date for funded projects is mid 2022.

Questions

If you have any questions regarding this RFP, or to discuss whether your project would be in scope, please contact Katie Kemper at Global Bridges (kemper.katherine@mayo.edu) or the Pfizer Grant Officer, Jessica Romano (jessica.romano@pfizer.com).

References

1. <https://www.cdc.gov/antibiotic-use/index.html>
2. WHO. The world health report 2007. A safer future: global public health security in the 21st century.: World Health Organization (WHO). 2007.
3. Gebeyehu E, et al., "Inappropriate Use of Antibiotics and Its Associated Factors among Urban and Rural Communities of Bahir Dar City Administration, Northwest Ethiopia," PLoS One, 2015 Sep 17;10(9):e0138179.
4. Rao GG, et al., "Key demographic characteristics of patients with bacteriuria due to extended spectrum beta-lactamase (ESBL)-producing Enterobacteriaceae in a multiethnic community, in North West London," Infect Dis (Lond), 2015;47(10):719-24.
5. Kempker JA, et al., "Risk Factors for Septicemia Deaths and Disparities in a Longitudinal US Cohort," Open Forum Infect Dis, 2018 Nov 15;5(12):ofy305.
6. Jones, J. M., Fingar, K. R., Miller, M. A., Coffey, R., Barrett, M., Flottesch, T., Heslin, K. C., Gray, D. T. and Moy, E. (2017) Racial Disparities in Sepsis-Related In-Hospital Mortality: Using a Broad Case Capture Method and Multivariate Controls for Clinical and Hospital Variables, 2004-2013, Critical Care Medicine, 45(12), e1209-e1217.
7. Esmita Charani E, Holmes AH, "Antimicrobial stewardship programmes: the need for wider engagement", BMJ Qual Saf, 2013, 22 (11), 885-887
8. Andersen S, Knudsen J., "A managed multidisciplinary program on multi-resistant Klebsiella pneumoniae in a Danish University Hospital." BMJ Qual Saf, 2013, 22 (11), 907-15

APPENDIX A

Quality Improvement Proposal Requirements

Applications will be accepted via the online portal (www.cybergrants.com/pfizer/QI).

All sections of your application will need to follow the character limits specified in the online application.*

Proposals should be single-spaced using Calibri 12-point font and 1-inch margins. Note there is a 10-page limit for proposal documents, exclusive of references.

Please include the following sections:

Goals and Objectives	Briefly summarize the overall goal and objectives of the proposed project.
Assessment of Need for the Project	<p>Include a quantitative baseline data summary, initial metrics (e.g., quality measures), or a project starting point (please cite data on gap analyses or relevant patient-level data that informs the stated objectives) in your target area.</p> <p>Describe the source and method used to collect the data. Describe how the data were analyzed to determine that a gap existed. If a full analysis has not yet been conducted, please include a description of your plan to obtain this information.</p>
Target Audience	Describe the primary audience(s) targeted for this project. Also indicate whom you believe will directly benefit from the project outcomes.
Project Design and Methods	Outline the proposed methodology and key stages or milestones of your planned approach. Maximum project length is two years, which includes analysis and reporting of impact of proposed interventions.
Innovation	<p>Explain what measures you have taken to assure that this project idea is original and does not duplicate other projects or materials already developed.</p> <p>Describe how this project builds upon existing work, pilot projects, or ongoing projects developed either by your institution or other institutions related to this project.</p>
Evaluation and Outcomes	<p>Describe how you will measure the success of your project. What measures and metrics will you use to evaluate the impact of the project? Describe your plan to capture baseline and end-of-project metrics and results.</p> <p>Describe the sustainability of this project. How will the results of the project be shared? How will the project address disparities to support ongoing improvement in antimicrobial stewardship?</p>
Anticipated Project Timeline	Provide an anticipated timeline for your project including project start/end dates.

Organizational Detail	Describe the mission, capability, and relevant previous activity of the applicant organization and how it will facilitate the project. Also include information about collaborating or project-partner organizations as applicable.
Budget Narrative	<p>Please include a budget narrative that describes in greater detail the line items specified in the budget submitted within the application.</p> <p>While estimating your budget please keep the following items in mind:</p> <ul style="list-style-type: none"> ○ Institutional overhead and indirect costs may be included within the grant request. Examples include human resources department costs, payroll processing and accounting costs, janitorial services, utilities, property taxes, property and liability insurance, and building maintenance as well as additional project expenses such as costs for publication, IRB / IEC review fees, software license fees, and travel. Please note: Pfizer does not provide funding for capital equipment. ○ Pfizer maintains a company-wide, maximum allowed overhead rate of 28% for independent studies and projects. Please click here for details. ○ It should be noted that grants awarded through GMG cannot be used to purchase therapeutic agents (prescription or non-prescription).

*The online application also includes the fields noted above. The text in those fields should be the same text that is included in your Full Proposal document.