Applying for Funding: Don't take it for granted

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Grant Writing Workshop

- Identify impact of NP/DNP in writing and securing grants
- Understand how to find appropriate NIH grants
- Describe development of innovative projects
- Describe fundamentals of grant writing
- Explore foundation grants

Let's begin

- What are my key interests in clinical practice?
- Where are the gaps in research and outcomes related to my interest?
- How can I make the most impact in this arena?
- What are my ideas for developing a project to improve health care outcomes?

'Demographics' of NIH grants

- NIH supported biomedical research for > 100 years
- $30B medical research
  - 80% grants to researchers, schools, institutions
  - 10% NIH
- Application rates decreased
- 30% NIH funded projects, female PI

NIH portfolio online.(2013). Retrieved from: http://report.nih.gov/nihfactsheets/

Formulating ideas

- Writing a research question
- Is it fundable?

What types of research projects would NIH fund?

Innovative

Google images. Retrieved from: https://images.google.com

Disruptive Innovation

- New innovation that disrupts the existing market
- Unexpected; disrupts/challenges status quo
  - Chemical photography ⟶ Digital photo
  - Word processors ⟶ PCs
  - Floppy disk ⟶ Flashdrives
  - Traditional encyclopedia ⟶ Wikipedia
  - Maps ⟶ GPS

Disruptive Innovation

http://www.youtube.com/watch?v=RoLomumfLfk

Google images. Retrieved from: https://images.google.com

Hot topics for grant proposals

- Disparities health care
- Minorities/vulnerable populations
- Community related
- Growing academic-community partnerships
- Chronic diseases
  - Self-management

Research Project Success Rates by NIH 2013

Retrieved from: http://report.nih.gov/success_rates/Success_ByIC.cfm

NIH Institute	No. Reviewed	No. Awarded	Award Amount	Success Rate
Common Fund	1,434	132	$149,160,293	9.2%
FIC	137	20	$1,909,128	14.6%
NCCAM	405	47	$20,105,084	11.6%
NCI [3]	7,975	1,095	$403,944,814	13.7%
NEI	1,128	267	$105,955,636	23.7%
NHGRI	341	70	$45,366,637	20.5%
NHLBI	4,331	734	$393,828,824	16.9%
NIA	2,674	365	$149,140,169	13.6%
NIAAA	853	166	$55,291,978	19.5%
NIAID	5,367	1,008	$415,413,896	18.8%
NIAMS	1,635	260	$74,149,081	15.9%
NIBIB	1,329	182	$62,531,773	13.7%
NICHD	3,269	354	$128,076,443	10.8%
NIDA	1,874	365	$141,389,635	19.5%
NIDCD	721	162	$57,261,808	22.5%
NIDCR	718	143	$52,788,437	19.9%
NIDDK	2,760	579	$322,195,212	21%
NIEHS	1,028	157	$54,738,428	15.3%
NIGMS	4,158	826	$296,806,655	19.9%
NIMH	2,736	512	$205,699,873	18.7%
NIMHD	280	12	$4,469,917	4.3%
NINDS	3,551	702	$267,555,023	19.8%
* NINR	581	53	$21,826,891	9.1%
NLM [2]	106	13	$4,981,304	12.3%
OD ORIP-SEPA*	55	11	$3,288,420	20%
OD Other**	135	75	$75,172,353	55.6%
FY Totals	49,581	8,310	$3,513,047,712	16.8%

National Institute of Nursing Research (NINR)

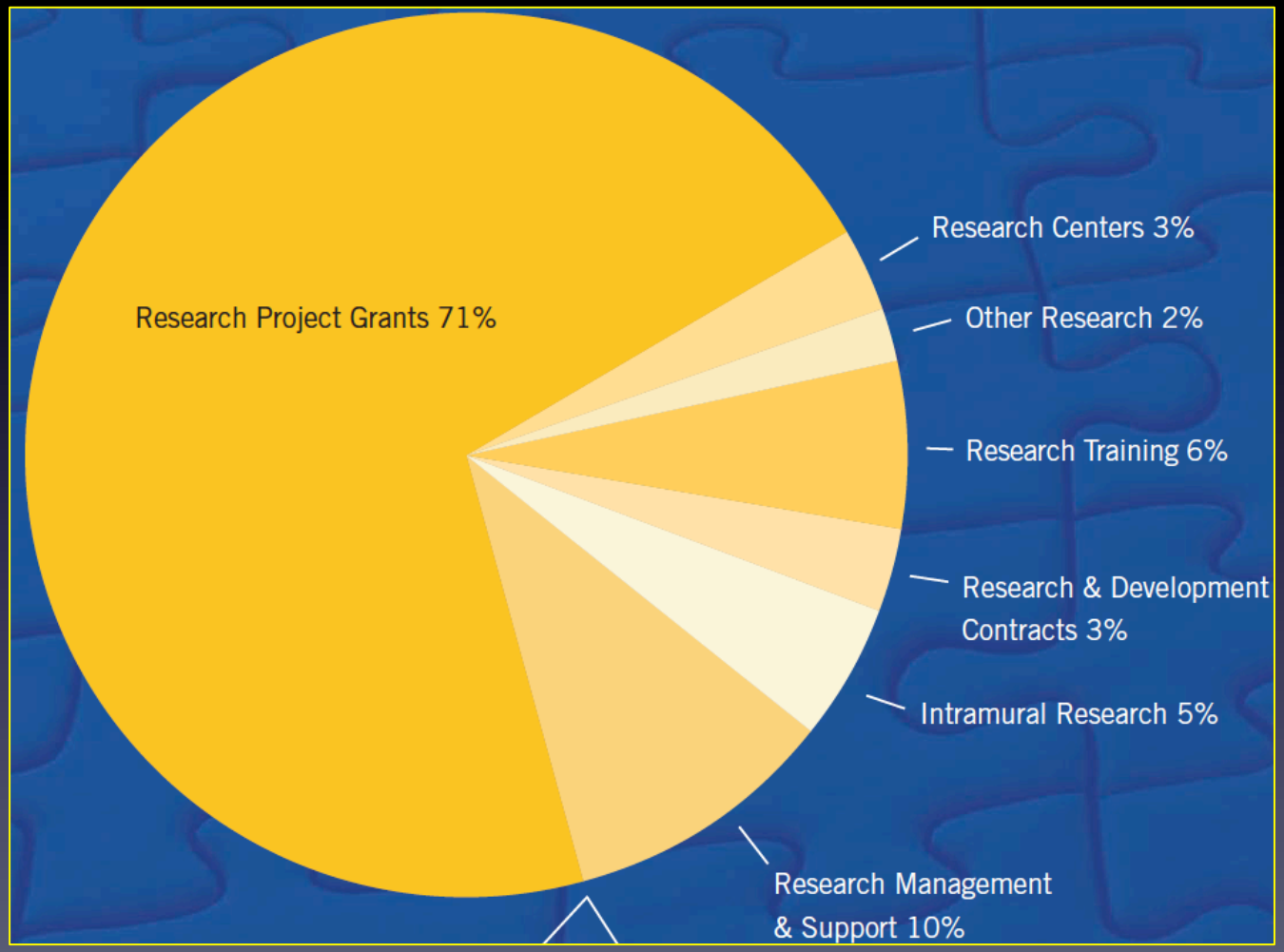
- Science contributes to clinical practice, prevention of illness, health promotion, QOL across lifespan
- Health inequalities, translational research, interdisciplinary teams
  - Chronic disease
  - Management of health

National Institute of Nursing Research (NINR)

- To advance science of health, NINR will invest in research to:
  - Enhance health promotion and disease prevention
  - Improve QOL through symptom management of acute and chronic illness
  - Improve palliative and end-of-life care
  - Enhance innovation in science and practice
  - Develop the next generation of nurse scientists

Bringing science to life NINR strategic plan. (2011). Retrieved from: https://www.ninr.nih.gov/sites/www.ninr.nih.gov/files/ninr-strategic-plan-2011.pdf

NINR Budget 2012



Bringing science to life NINR strategic plan. (2011). Retrieved from: https://www.ninr.nih.gov/sites/www.ninr.nih.gov/files/ninr-strategic-plan-2011.pdf

Institute of Medicine Report

The Institute of Medicine supports nurses to practice to the full extent of their education and training, form partnerships with other healthcare professionals in redesigning health care in the United States, and produce effective planning and policy making to improve data collection and dissemination that leads to improved health outcomes.

IOM (2010). The future of nursing: leading change advancing health. Retrieved from: http://www.iom.edu/Reports/2010/the-future-of-nursing-leading-change-advancing-health.aspx

Grant: Reducing Health Disparities among Minority and Underserved Children (R01)

- NINR
- R01: new grant/investigator 500K/year up to 5 years
- Review cycles: Feb 5, June 5, Oct 5

Grants and funding.(2014). Retrieved from: http://grants.nih.gov/grants/funding/submissionschedule.htm

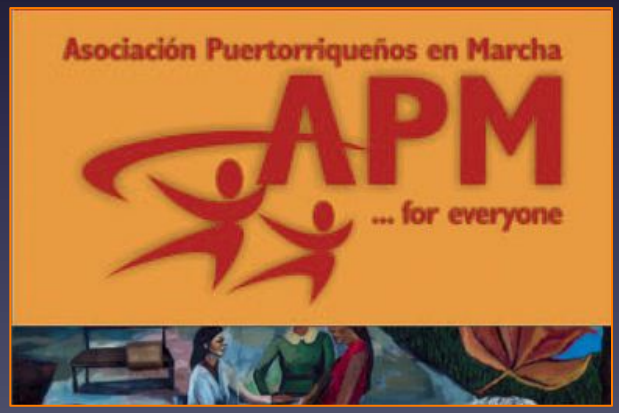
Example: NINR

- Formulating the idea
- Devote time to 'just think'

Google images. Retrieved from: https://images.google.com

Example: NINR

- Formulating your team



PENNSTATE
1855
College of Agricultural Sciences

LASALLE UNIVERSITY

Google images. Retrieved from: https://images.google.com

How to find an NIH grant

- www.nih.gov
- Tab: Grants & Funding
- Drop-down menu: Funding Opportunities (NIH guide)
- Can try searching with key words
- Program Announcements (PAs) – have cycles
- Requests for Applications (RFAs) – one time

The AIMS (objectives)

- High-impact project 4-5 years
  - Write Aims for non-expert reviewer
- Specific but interdependent; roadmap
- 2-4 (ideal=3)
- 1 page
- Be creative, be excited!

Google images. Retrieved from: https://images.google.com

Example: AIMS (1 page)

To successfully implement and test the efficacy of a multi-level asthma intervention program incorporating medical management coupled with environmental control measures to decrease asthma morbidity and improve quality of life among Latino children and their parents living in urban communities.

- Engage the Latino community through a series of community events to inform stakeholders of research study and establish trust and collaboration.
- Conduct in-home asthma education coupled with integrated pest management by trained community asthma educators and entomology educators.
- Provide asthma management tools and resources such as nebulizers, spacers, and literature.
- Provide pest management toolkit to empower vulnerable population with tools to manage asthma triggers in their homes
- Facilitate ongoing support of intervention by community asthma educator

Hypothesis #1: Self-management measures implemented through in-home education will result in decrease asthma morbidity and improved quality of life among Latino parent/caregiver and child.

Aim 2

To disseminate study results to all stakeholders and policy makers for adoption of a sustainable health promotion model for asthma control in an urban, Latino community.

- Communicate findings and implications for future clinical practice and policy to local insurers, policy makers and the larger field through conference presentations
- Publication of successful study results in peer-reviewed medical/nursing journal

Aim 3

Engagement of nurse practitioner faculty and graduate nursing students in community-based investigation to support advancements in science related to wellness and development of nurse scientists.

- Support of goal to produce a cadre of nurse scientists to conduct clinical research through formal mentorship and workshops related to research interests, funding opportunities, and grant writing
- Facilitate the growth of nursing research in urban communities through experiential opportunities throughout the research study
- Provide an opportunity for earning clinical hours by participating in recruitment, training and education, and intervention.

Asthma is a serious health threat to Latino children who bear the highest burden of the disease. Our study will provide evidence in the field of asthma research to mitigate asthma disparities and prevent sequelae resulting in improved health and outcomes for Latino children.

Abstract

- Synopsis: up to 1 page

STOP ASTHMA IN LATINO URBAN DISTRICTS (SALUD)

Abstract

The prevalence of childhood asthma has increased nationally over the past three decades from 3.1% to 8.4% (CDC, 2012). In Latino populations, asthma prevalence rates are reported to be 16% with rates in Philadelphia among Latino children as high as 22% (CDC, 2010; Philadelphia Health Management Corporation [PHMC], 2006). Studies have shown two major reasons for such a high morbidity from asthma in Latino children living in urban communities. First, many outpatient management and prevention programs for childhood asthma have not been conducted in Latino, urban communities as extensively as in African American communities. Second, exposure to indoor pests such cockroaches, mice, and dust mites serve as significant triggers for asthma exacerbations in these communities (Sheehan et al., 2010; Northridge, Ramirez, Stingone, & Claudio, 2010; Wang, Abou El-Nour, & Bennett, 2008, Litonjua et al 2001). Minority groups are less likely to have access to care and to be prescribed appropriate asthma medications, which has contributed to a significant health disparity (Community Health Needs Assessment Summary, 2013; Am Lung Association, 2011). In Philadelphia, more than half of asthmatic children have gone to the emergency department at least once in the past year compared to only one-third in the city's suburban counties (Philadelphia Allies Against Asthma [PAAA], n.d.). There is a significant paucity of literature regarding effective programs to reduce morbidity associated with asthma in Latino children. This study will look at a new, innovative model that proactively treats asthma in households, provides entomologic expertise to effectively address reduced-risk reduction of pests triggering asthma, and educates and empowers families on management and control of asthma and their internal environmental to decrease morbidity. The goal is to target a reduction in health disparities in asthma among Latino children as evidenced by symptom-free days while improving families' overall quality of life. The innovation involves multilevel collaboration between Temple University School of Medicine, Center for Bioethics, Urban Health, and Policy (TUSM/CBUHP), Pennsylvania State University College of Agricultural Sciences Integrated Pest Management Program (Penn State IPM), Asociación Puertorriqueños en Marcha [APM]) a nonprofit Latino-based service and community development community of North Philadelphia, and La Salle University School of Nursing and Health Sciences.

Research Strategy (12 pages)

- Significance ~1-2 pages
- Investigators ~2 pages
- Innovation ~1/2 page
- Approach ~7-9 pages
- Environment ~1 page
- *Utilize wording from the grant*

Significance

- Literature Review
- Does project address an important problem?
- Does project address a critical barrier to progress in the field?
- If AIMS are achieved, how will scientific knowledge or clinical practice be improved?
- How will successful completion of AIMS change concepts, methods, services or preventative interventions that drive this field?

Significance

RESEARCH STRATEGY

A. SIGNIFICANCE

A.1. How the proposed project will address asthma health disparities among Latino children who live in an urban district of North Philadelphia

Latinos are the highest growing minority in the United States and those diagnosed with asthma experience the worst outcomes compared to Caucasians (CDC, 2011, USDHHS, 2011, NHDR, 2007). Latino children diagnosed with asthma face a serious health threat and require comprehensive management to maintain asthma control. Latino children have asthma prevalence rates as high as 22% (Philadelphia Health Management Corporation, 2006) and are less likely to have access to care and be prescribed appropriate asthma medications (Am Lung Assoc. 2011). Asthma accounts for 1.8 million emergency department (ED) visits and children have higher ED visits for uncontrolled asthma than adults (Akinbami et al., 2012). In

A.2. How the proposed project will address critical barriers to progress in the reduction of health disparities among minority and underserved children

Latinos are more likely to live and work in environments that place them at higher risk for asthma and result in more difficulty in managing this complex disease (Am Lung Assoc, 2011). Multilevel barriers such as poverty, health literacy, access to care, and language contribute to poorer asthma outcomes among Latinos who have limited access to resources that impact on health and wellness. Specifically, Latinos living in Philadelphia face those barriers as a result of high unemployment and violent crime rates (10.7%, 21.6% respectively) as well as low high school graduation rates (64%) (Pew Charitable Trust [PCT], 2013). We developed a novel multi-disciplinary intervention integrating medical management with environmental pest control measures to address the critical barriers to progress in controlling asthma among Latino children. ***This intervention, which is conducted in the homes, is aligned with the Affordable Care Act's provision to expand prevention research, wellness, and health promotion. The proposed project takes advantage of expertise at multiple levels: clinicians, entomologists, and community leaders to ensure successful outcomes of decreased asthma morbidity and mitigating health disparities.***

Investigators

- "Toot your own horn"
- Publications, previous projects, awards, previous securing of grants
- Principal Investigator (PI)
  - Knowledge
  - Authority
- Multiple PIs

Example: Investigator

B. INVESTIGATORS

B.1.Principal Investigator- Norma Alicea-Alvarez, DNP, PNP-BC

Dr. Alicea-Alvarez, as PI, will be responsible for the oversight of the research study. The goal of the project is aligned with Dr. Alicea-Alvarez's career as a board certified pediatric nurse practitioner (PNP) promoting health equity through education, policy, and clinical research. Dr. Alicea-Alvarez is originally from Puerto Rico and fluent in Spanish. *Dr. Alicea-Alvarez developed an asthma clinic in a pediatric clinical practice. She was directly responsible for the medical management of asthma patients through consultation, physical examination, interpretation of pulmonary function testing (PFT), diagnosis, medical intervention, education, and follow-up visits. She also trained registered nurses who were part of the asthma team. Within six months of implementation of the asthma clinic, the pediatric practice markedly reduced the number of emergency room visits and admissions to the local hospital due to asthma.* Dr. Alicea-Alvarez's interest in asthma management and Latinos persists and her most recent publication, *A review of barriers to effective asthma management in Puerto Ricans: cultural, healthcare system, and pharmacogenomics issues,* addresses the high prevalence rates and complications related to asthma in Puerto Ricans (Alicea-Alvarez, Swanson-Biearman, Kelsen, 2014). As a doctoral candidate, Dr. Alicea-Alvarez conducted a pilot study on the feasibility of screening for Chlamydia in a high school. The published study provided evidence necessitating the need for improved screening and as a result, *Dr. Alicea-Alvarez developed an adolescent GYN clinic in a practice to meet the needs of the community* (Alicea-Alvarez, Hellier, Jack, & Lundberg, 2011). *To conduct the pilot study and the GYN clinic, she collaborated with the high school personnel and students, the school board, physicians, nurse practitioners, and the community. Dr. Alicea-Alvarez's advocacy and policy work regarding improved Chlamydia screening led to recognition at the Pennsylvania House of Representatives* and publication of a chapter in the textbook, Policy and Politics in Nursing and Health Care, 6th edition (Alicea-Alvarez, Hellier, 2012). Dr. Alicea-Alvarez's publication, Improving health care outcomes in Hispanic Americans: recruiting nurses to reflect the growing Hispanic population to mitigate health care disparities, reflects the need for a diverse healthcare workforce to meet the demands of the growing Latino population (Alicea-Alvarez, 2012). *Dr. Alicea-Alvarez created the first study abroad course in Mayaguez, Puerto Rico while at Carlow University School of Nursing.* Faculty and nurse practitioner students traveled to Mayaguez, Puerto Rico to collaborate,

Innovation

- Is this project original?
- Does project challenge or shift current clinical practice?
- Are the concepts, approaches, methodologies or interventions novel to the field?

Example: Innovation

- Our methodology is novel in the field of asthma research….incorporating pest management.
- Represented a major paradigm shift in clinical practice.
- Uniquely comprehensive-beyond standard of care

Approach

- Is overall strategy, methodology, analyses appropriate to AIMS?
- *Preliminary data-primary or secondary*
- Inclusion/exclusion criteria
- Data collection and analysis
- Potential problems, alternative strategies addressed?
- Protection of human subjects for research

Approach

D.2. Central Strategy specific to Aim 1

D.2.a. Aim1: To successfully implement an innovative, multi-direction asthma intervention program incorporating medical management coupled with environmental control measures to decrease asthma morbidity among Latino children living in urban communities.

The central strategy in targeting the reduction of disparity in asthma is to focus on and conduct the intervention in the community. This study is comprised of 4 stages: 1) Engagement, 2) Training (of community health workers), 3) Recruitment and Intervention, and 4) Evaluation and Dissemination. Refer to Appendix Table 1.

Stage/Level 1: Engagement

- Data Collection, Management, and Analysis: Biostatistician
- Address potential problems with alternative strategies

Preliminary Data

- Address experience of researchers
- Established gaps evidenced by literature

Google images. Retrieved from: https://images.google.com

Analyses of Data

- Biostatistician

For the primary analyses, changes from baseline to 2 months post-intervention completion in SFDs, quality of life and knowledge scores will be examined using paired t-tests unless distributions indicate the need for a non-parametric test, in which case the Wilcoxon signed rank test will be utilized. Exploratory analyses to examine changes in outcomes across all timepoints (2 months and 6 months post-intervention completion) will be conducted using ANOVA with repeated measures. Multivariate regression analysis will be used to identify variables predictive of change in SFDs, quality of life and knowledge scores (linear regression) after adjustment for potential confounders which will include known predictors of outcome as well as variables associated ($p < 0.10$) with outcomes in this study sample.

Environment

- Does environment contribute to likelihood of success?
- Institutional support, equipment, physical resources available?

Budget for NIH Grants

- R01: 500K/year up to 5 years
- R21: 250,000 total (2 years)
- 1st grant: 40% time
- Add all personnel salary and benefits
  - All Co-investigators
  - Project manager (RN)
  - CHWs
- Line items: iPad, pest kit, glucometers etc.

After submission…..

Google images. Retrieved from: https://images.google.com

Foundation Grants

- Private funding
- Application form
- "No application form is required, submit proposal"

Basic Grant Proposal

- Cover letter
- Proposal Summary (Abstract)
- Introduction of your organization
- Statement of Problem or need
- Project Goals and Objectives
- Methods and Timeline
- Evaluation Criteria
- Budget

Foundation Grants

- Specific to what they will fund
- 'What we don't fund'
- Submit through online process/portal/email
- Check if state is eligible

Example: Edna G. Kynett Memorial Foundation

http://www.kynett.org

Example: Walmart Foundation Grant

http://foundation.walmart.com/apply-for-grants/

Example: Finish line

http://www.finishline.com/store/youthfoundation/guidelines.jsp

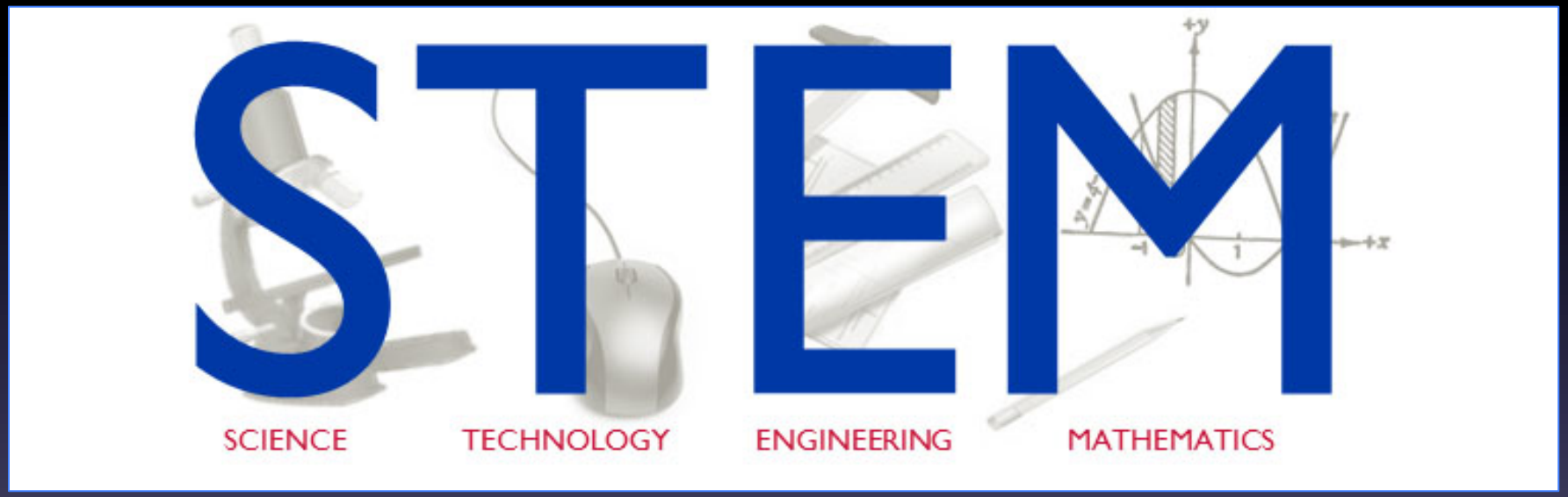
Example: Target

https://corporate.target.com/corporate-responsibility/grants

Example: Verizon

http://www.verizonfoundation.org/our-focus/#healthcare

Example: STEM



http://www.stemfinity.com/STEM-Education-Grants

How to find Foundation Grants

- Foundation Directory
- http://www.foundationcenter.org
- Work in academic center-univ has develop department for access to online Foundation Directory
- Funding information network locations: public library, community college

Foundation Directory

http://www.foundationcenter.org

- Top bar-click Find Funders
- Drop down menu-click Fact Finder Foundation Directory Online Free
- Box: Foundation Directory online Free
  - Zip code click Search

Example: zip code 19106

Grantmaker Name	City, State/Country	Total Assets	Total Giving
Endlein Scholarship Trust, A.C.	Philadelphia, PA	$121,837	$4,168
Achenbach Foundation for Graphic Arts, Hazel J. & Moore S.	Philadelphia, PA	$1,829,647	$86,304
Buckstaff Trust, Aaron H.	Philadelphia, PA	$473,942	$18,890
Abascal Trust, Mary J.	Philadelphia, PA	$947,729	$36,736
Adams Trust, Jack	Philadelphia, PA	$2,223,460	$97,523
Wheeler Charitable Trust, A. J.	Philadelphia, PA	$12,442	$601
Akers Charitable Trust, Rose Greer	Philadelphia, PA	$1,993,854	$86,942
Albat Trust f/b/o Ernest B. Foundation, Rose A.	Philadelphia, PA	$614,065	$23,325
Donovan Trust, A.	Philadelphia, PA	$150,545	$2,614

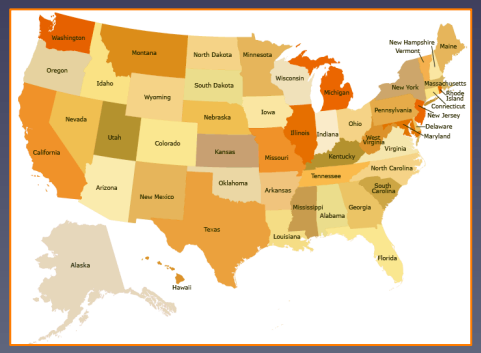
Government and Private Grants

http://www.egrants.net/about/

- Health care focus
- Require subscription
  - 2 week trial free
  - View new grant announcements free

More Examples of Foundation Grants

- The Hearst Foundation: education, health, culture, social services
- Avon Foundation for women breast cancer crusade
- William T. Grant Foundation
- Magic Johnson Foundation, Inc.
- American Sleep Medicine Foundation (MDs)
- https://www.tgci.com/funding-sources



Funding: Don't take it for Granted

- Apply, Apply, Apply
- You have *a chance to secure funds* if you APPLY
  - There is a 0% chance of securing funds if you don't apply


citi FIELD
NEW YORK
NEW YORK
BASEBALL
5

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