

A Hard Pill to Swallow:

Combatting the World's Silent Battle on Drug Abuse

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**To:** United States Agency for International Development, Fogarty International Center of the NIH

**From:** Robby Doughty, Zainab Feroze, Harneet Kaur

**Re:** Proposal to Strengthen Ghana's Capacity to Address Diabetes Mellitus

**Date:** March 26, 2017

**Abstract:** In his article, "Justice in translation: from bench to bedside in the developing world," Alex John London highlights the importance of low and middle income countries receiving equal access to care. Using his ethical framework, we designed a project to combat drug abuse and drug addiction in the United States as well as India and Pakistan. Rural regions like those upon which we focus in Indiana as well as LMIC like India and Pakistan possess a lack of distributive justice in terms of access to drug addiction treatment and prevention. Our threefold plan aims to provide individuals with more knowledge surrounding drug use as well as more accessibility to treatment so that, ultimately, these individuals are empowered to make fully autonomous choices and receive a higher standard of care.

## **I. Project Rationale, Goal, and Specific Objectives**

From the dirt roads of Lahore to the lofty office spaces of Wall Street, the number of drug abuse and addiction cases have surged all over the world. Drug abuse is a global health issue that knows no socioeconomic or racial barrier. Celebrities' deaths caused by drug overdose headline newspapers daily. The challenges faced by drug-addicted individuals are constantly illustrated by music artists album after album. Videos on the effects of drug abuse have been shared on social media millions of times.

Despite all of this, little action has been taken to tackle this challenge that threatens the lives of millions worldwide. For a global health dilemma that affects so many people, surprisingly little data exists regarding drug abuse, treatment, and solutions. Data is particularly scarce for regions like India and Pakistan -- both countries that are severely plagued by drug addiction. It is our hope that our project will draw attention to the paucity of data and highlight the importance of distributive justice in terms of both data and treatment. Without it, drug abuse and addiction simply cannot be addressed and the best solutions cannot be created. With what data we do have, however, we have identified potential causes and solutions to combat the drug abuse issues in the United States as well as the Punjab region of India and Pakistan. We focus on environmental factors that influence drug abuse. Not only do we focus on the mentioned lack of data, we also highlight the significant deficiencies within the global health system that prevent the decline of drug abuse.

The goals of this project are as follows:

1. Develop a 2-year pilot educational program that serves as a preventative measure by highlighting the risks and consequences of drug addiction.
2. Increase treatment availability.
3. Improve (and re-assess the validity of) data surrounding drug addiction and abuse.

## **II. Background and Significance**

### **II. I Drug Abuse in the U.S.**

The United States has come a long way from the days when John Pemberton's Coca-Cola formula included cocaine and heroin was sold over the counter under the trademark Bayer.

However, despite immense gains in the regulation of harmful drugs over the centuries, drug abuse is an ever-growing problem in the United States today. As a country with a troubled, and complicated relationship with drug abuse, it is important to address this issue before it spins out of control. According to official data from the Centers for Disease Control and Prevention (CDC) fatal overdoses from opioids have more than tripled over the past fifteen years.<sup>1</sup>

Similarly, overdoses from heroin and benzodiazepines have more than doubled in the same time period. Usage rates amongst drugs such as cocaine and methamphetamine have declined slightly over the past decade.<sup>2</sup> However, the decline in the overall use of these drugs can be attributed to better law enforcement tactics as well as media scrutiny, especially regarding methamphetamines. Most alarming, however, is the overdose death rates directly from prescription drugs, which have seen the highest increase since 2000: a 2.8 fold spike in less than

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<sup>1</sup> Wilson, Chris. "5 Charts That Show How Bad America's Drug Problem Is". *Time*. Updated 03/29/2016. Accessed 11/22/2016.

<sup>2</sup> U.S. Department of Justice Drug Enforcement Administration. "2015 National Drug Threat Assessment Summary". October 2015. <https://www.dea.gov/docs/2015%20NDTA%20Report.pdf>

fifteen years.<sup>3</sup> People's lives are of the utmost importance, yet there is more to the story when it comes to drug abuse in the United States. One major factor is the financial boon it creates for the country. According to the most recent data from the DEA, "the estimated cost of illicit drug use to society for 2007 was more than \$193 billion."<sup>4</sup> The majority of this enormous number came from the loss of productivity, but also the impact it has on criminal justice systems, and the healthcare system. The data is now almost ten years old, and given the spikes in drug abuse in the United States the cost on society has only grown.

For the purposes of a more succinct comparison and clear proposal, our study will be focusing on the state of Indiana, which has been at the center of attention for its recent drug abuse problems. In various counties all over the state, there have been vast increases in the prevalence of opioid abuse and heroin abuse. What is particularly fascinating about Indiana is that it defies the norms typically associated with states struggling with drug abuse. While Indiana has one major city in Indianapolis, and borders states with large cities such as Chicago and Cincinnati, it is a mostly rural state with a predominantly white population. However, in recent years, Indiana has experienced a boom in heroin abuse. In a comprehensive study conducted by an Indiana University student, it was found that police cases involving heroin had, "increased by 294 percent between 2008 and 2013, from 354 cases to 1,396 last year (2014)."<sup>5</sup> The heroin addiction phenomenon that has swept through Indiana is most certainly tied to the spikes in prescription drug abuse. In a government study, "81 percent of new heroin users

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<sup>3</sup> NIH: National Institute on Drug Abuse. "Overdose Death Rates". Revised June 2015. <https://www.drugabuse.gov/related-topics/trends-statistics/overdose-death-rates>

<sup>4</sup> U.S. Department of Justice Drug Enforcement Administration. "2011 National Drug Threat Assessment Summary". August 2011. <https://www.justice.gov/archive/ndic/pubs44/44849/44849p.pdf>

<sup>5</sup> Ketterman, Dustin, Lanning, Blake, Ross, Sophie, Indiana University. "Heroin's New Hold on Indiana". *Investigative Journalism Education Consortiem*. August 7, 2014.

started on prescription painkillers such as hydrocodone or oxycodone, and people who use those drugs are 19 times more likely to use heroin.”<sup>6</sup>

## **II.II Drug Abuse in the Punjab Region of India and Pakistan**

The United States is not the only country that is struggling with drug abuse within its population. In comparison to Indiana, another region that has been greatly affected by drug abuse is the Punjab region in India and Pakistan. A New York Times article released in April of 2012, discusses the the high number of addicts in villages throughout Punjab where prescription bottles are littered across the ground and describes the high rate of drug abuse in the region. The author states, “throughout the border state of Punjab, whether in villages or cities, drugs have become a scourge. Opium is prevalent, refined as heroin or other illegal substances. Schoolboys sometimes eat small black balls of opium paste, with tea, before classes. Synthetic drugs are popular among those too poor to afford heroin”.<sup>7</sup> Punjab is the state most affected by drugs in India, and according to an Indian health official who released a statement in 2009 within a court affidavit said that Punjab is at risk of losing an entire generation to drugs because approximately 60 percent of all illicit drugs confiscated in India are seized in Punjab.<sup>8</sup> This drug problem is not new in Punjab, but has a long history in this region dating back before 1947 and the independence of India. Today, Punjab is one of the primary gateways for opiates smuggled into India from Pakistan and Afghanistan. Heroin abuse is a growing issue and the rate of heroin abuse among 15 to 25 year olds is as high as 75%<sup>9</sup> and “A Department of Social Security

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<sup>6</sup> Ketterman, Dustin, Lanning, Blake, Ross, Sophie, Indiana University. “Heroin’s New Hold on Indiana”. *Investigative Journalism Education Consortiem*. August 7, 2014.

<sup>7</sup> Yardley, Jim. “Indian State Finds Itself in a Tight Grip of Addiction” *New York Times*. April 18th, 2012.

<sup>8</sup> *Ibid*.

<sup>9</sup> “Punjab Drug Epidemic.” <http://alcoholrehab.com/drug-addiction/punjab-drug-epidemic/>

Development of Women and Children suggested that as many as 67% of rural households in Punjab will have at least one drug addict in the family. There is at least one death due to drug overdose each week in the region” .<sup>10</sup> Drug abuse in Punjab is a rapidly growing issue that has many bioethical consequences that need to be discussed.

## **II. II. Current Institutional Capacity of the U.S., India and Pakistan to Address Drug Abuse.**

In the United States’ budget plans have been significant increases in money put toward prevention of drug abuse. Around \$1.5 billion was requested in order to support various educational and outreach programs to prevent drug abuse in the White House’s’ most recent budget proposal.<sup>11</sup> In addition to the preventative measures the White House has requested “\$920 million to support cooperative agreements with States to expand access to treatment for opioid use disorders. States will receive funds based on the severity of the epidemic and on the strength of their strategy to respond to it. States can use these funds to expand treatment capacity and make services more affordable.”<sup>12</sup> Various provisions in the Affordable Care Act have also allowed people more access to care, especially those from lower income backgrounds.

In India, similar steps have been taken to address the growing drug abuse problem. Schools in India have now integrated mandatory programs in their curriculum devoted to drug abuse prevention, in addition, “the Ministry of Health and Family Welfare has established several de-addiction centers which are mostly based at the district hospital level.”<sup>13</sup> Further, the

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<sup>10</sup> “Punjab Drug Epidemic.” <http://alcoholrehab.com/drug-addiction/punjab-drug-epidemic/>

<sup>11</sup> National Drug Control Budget “Fy 2017 Funding Highlights”. Executive Office of the President of the United States. February 2016.

<sup>12</sup> National Drug Control Budget “Fy 2017 Funding Highlights”. Executive Office of the President of the United States. February 2016.

<sup>13</sup> Raj Pal, Hem. “Prevention of substance abuse: the Indian experience”. *World Psychiatry*. February 4 2005.

Ministry of Social Justice & Empowerment within India has implemented a program called the prevention of Alcoholism and Substance Drug Abuse that was revised in 2008 to provide financial support to NGOs to spread awareness to the public about the harms of substance and alcohol abuse<sup>14</sup>. Further, this program provides counseling and de-addiction after care and rehabilitation.

Pakistan has taken steps towards creating a new drug initiative nationwide. In 2010, the Pakistani government adopted new drug initiatives with Iran and Afghanistan to strengthen their drug control and encourage all three governments cooperation in preventing drug trafficking. Within this new initiative, the Ministers agreed to expand the work of the Joint Planning Cell in Tehran to further share information on illicit drug trafficking<sup>15</sup>. All three countries also agreed to “organize more joint patrolling operations in the border areas of the three countries. In addition, the Ministers agreed to enhance legal cooperation in drug-related matters”<sup>16</sup>.

In comparing the three countries, the United States certainly appears to be on the forefront of drug abuse prevention and treatment. Despite this disparity, all three countries have room for vast improvement. For one, more treatment centers must be readily available to people struggling with drug abuse. These must be strategically placed throughout both rural and urban areas. Access to care may always be better for a person living in a densely populated area, and it is for this reason that extra attention must be paid to more isolated regions of the United States

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<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1414719/>

<sup>14</sup>Ruchismita, “Strategies and steps taken by the Government of India to reduce the drug demand”, *Preserve Articles*.<http://www.preservearticles.com/2011111517240/strategies-and-steps-taken-by-the-government-of-india-to-reduce-the-drug-demand.html>

<sup>15</sup> “Afghanistan, Iran and Pakistan strengthen anti-drug trafficking initiative”, *United Nations Office on Drug and Crime*, November 25th, 2010

<sup>16</sup> *ibid*



and India. Furthermore, laws in both countries regarding drug abuse must be reevaluated in light of the growing problem. One example in the United States involves a law that unintentionally discriminates against lower-income patients in need of care relating to drug abuse. Specifically, “The Medicaid Institutions for Mental Diseases (IMD) exclusion prohibits the use of federal Medicaid financing for care provided to most patients in mental health and substance use disorder residential treatment facilities larger than 16 beds.”<sup>17</sup> The law was intended to promote smaller medical facilities in danger of being put out by larger, privatized centers of care. However, the law is currently hindering thousands of lower-income Americans desperately in need of care. According to the SAMHSA, about 11% of people needing care are actually receiving it.<sup>18</sup> Many of these patients are turned away because facilities cannot hold more than 16 beds. Laws such as this one must be reevaluated to suit the needs of the growing drug abuse crisis.

Ranvinder Singh Sandhu, who is a sociologist in the Indian city of Amritsar, located in Punjab, surveyed around 600 drug addicts in both rural and urban areas of Punjab and he discovered that most of them were usually young, poor and unemployed and had no access to care because of the lack of drug abuse clinics and rehabs within Punjab. In our findings, the simple lack of treatment centers has been the most outstanding problem in both Indiana and the Punjab region. The drug abusers we are discussing are in a class that requires organized treatment for any hope of recovery. The first step to fixing the problem of drug abuse is

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<sup>17</sup> Legal Action Center. “The Medicaid IMD Exclusion: An Overview and Opportunities for Reform”. [https://lac.org/wp-content/uploads/2014/07/IMD\\_exclusion\\_fact\\_sheet.pdf](https://lac.org/wp-content/uploads/2014/07/IMD_exclusion_fact_sheet.pdf)

<sup>18</sup> Gorman, Anna. “Barriers Remain Despite Health Law’s Push To Expand Access To Substance Abuse Treatment”. *Kaiser Health News*. April 4 2014. <http://khn.org/news/substance-abuse-treatment-access-health-law/>

adequately supplying the addicted with the help they need.

### **II. III. Disparities with Respect to Access to Prevention and Treatment**

While drug abuse is a growing issue among people of all backgrounds and socioeconomic levels, people of lower socioeconomic statuses are particularly prone to drug abuse. It is important to note, however, that although drug abuse is more common among individuals of lower socioeconomic status, this does not necessarily indicate that socioeconomic status and drug abuse are a direct cause and effect. Rather, drug abuse is more of a byproduct of the lifestyle led by people of lower socioeconomic backgrounds. This byproduct is heavily dependent upon the environment in which one lives.

In a 2012 data set released by the Substance Abuse and Mental Health Services Administration (SAMHSA), the drug abuse treatment admissions were shown to be younger and less racially diverse in rural areas compared to those admissions in urban areas.<sup>19</sup> Additionally, urban treatment admissions are more likely than rural treatment admissions to not have a primary source of income.<sup>20</sup> In contrast, rural admissions tended to be full-time employed.<sup>21</sup> These differences in admissions statistics underscore the importance of culturally appropriate treatment; what might be an effective solution in a rural area might not be so beneficial in an urban area and vice versa. An increase in intervention efforts in rural areas could mitigate future drug abuse. Later, we will discuss that an increase in intervention does not only refer to more rehabilitation

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<sup>19</sup> Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. (July 31, 2012). *The TEDS Report: A Comparison of Rural and Urban Substance Abuse Treatment Admissions*.

<sup>20</sup> *ibid.*

<sup>21</sup> *ibid.*

centers but also more availability to these rehabilitation centers, including more appointments to a wider patient population. Urban areas, however, tend to have a greater number of rehabilitation centers, so -- taking into account the diverse needs and differences of urban and rural communities -- continuing to address the low employment rate and high rate of homelessness in urban regions might be even more beneficial in combatting the drug abuse problem. Focusing on improving an urban community's unemployment rate and homelessness cannot be the only solution, however. Some would argue that doing so would be an unreliable solution because external factors like the economy are constantly shifting and largely out of our control.

A 2004 study in Copenhagen included over 30,000 participants, and it was discovered that half of those receiving treatment for drug abuse only attended primary school or never went to school at all.<sup>22</sup> A clear correlation exists between education and drug abuse. For this reason, part of our proposal includes an expansion of educational programs in both urban and rural communities. Lack of education seems to be an underlying root cause of the tendency for drug addiction and abuse.

Another major issue regarding drug abuse is that measures of treatment and prevention have been consistently inconclusive. At its heart, drug abuse is a psychological problem. The neuroscience is perhaps the most difficult arena from which to draw conclusions. Over the past century, various treatments have been implemented to help patients struggling with drug abuse. An example of one of these treatments that has been introduced in various countries including the United States is Methadone. According to SAMHSA, Methadone is used to change the way

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<sup>22</sup> European Monitoring Center for Drugs and Drug Addiction (2004). *Relationship between Social Exclusion and Drug Use*.

patients' brains react to the pain of opioid withdrawal.<sup>23</sup> However, the treatment itself can become addictive and while it has worked for some individuals, the results of the treatment are inconclusive. The process of weaning patients off of addictive drugs by using other, less harmful drugs will always be a precarious process. In far too many cases, patients have overcome one addiction only to develop another.

To properly address the drug abuse epidemic in Indiana and the Punjab region, it will be vital to keep in mind that treatment for drug abuse is an ever-evolving area of modern medicine. Our proposal is not recommending specific medical treatments but rather seeking solutions to address the political, socioeconomic, and ethical issues intertwined with drug abuse.

Furthermore, it is vital to keep in mind the varying communities in which drug abuse is prevalent when implementing possible solutions. As we have shown, drug abuse is mainly an affliction of the impoverished. These individuals must have equal access to care regardless of their rural vs. urban setting.

#### **II. IV. Political, Socioeconomic or Cultural Considerations That Impact on the Ability of the U.S., India and Pakistan to Address Drug Abuse**

While the Punjab government is aware of the growing drug problems, it has not taken much action to counter the increase of drug abuse in their state in both India and Pakistan. When government officials are discussing regional issues and campaigning for elections, the growing issue of drug abuse is never addressed. An ethical issue that is raised uniquely in Punjab is the use of drugs to actually gain votes in the elections throughout Punjab. According to India's

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<sup>23</sup> Substance Abuse and Mental Health Services Administration, "Methadone", Updated 9/29/15. <http://www.samhsa.gov/medication-assisted-treatment/treatment/methadone>

Election Commission, “some political workers were actually giving away drugs to try to buy votes. More than 110 pounds of heroin and hundreds of thousands of bottles of bootleg liquor were seized in raids. During the elections, party workers in some districts distributed coupons that voters could redeem at pharmacies”.<sup>24</sup> Even though the Election Commission is aware of this ethical breach, the Indian government has not taken any substantive action to prevent this from occurring in future elections.

The United States government is arguably more in touch with the combat against drug addiction. But in states like Indiana, the issue of addressing drug abuse in rural versus urban areas (as well as areas that vary in socioeconomic level) still presents quite a challenge. Locating treatment centers across the entire state -- rather than condensing them around heavily populated areas like Indianapolis -- is crucial in ensuring that drug abuse is addressed in Indiana’s rural communities. Streamlining drug abuse awareness into public schools across the state is also a useful strategy that reaches across both rural and urban areas.

Providing more education in the Punjab region, however, will be much more complex than it seems at first glance. The cultural differences in Pakistan and India present a challenge alone. Many children, particularly girls, are encouraged to sacrifice their educational lives to instead work for their families. Expanding educational opportunities for the sake of combatting drug abuse will not be a mere year-long project. Such a solution possesses a series of layers that must be carefully extracted by policy makers over the next few years. Our hope is that the education solution we propose will eventually result in a -- even minimal -- culture change that would make drug addiction/abuse education more desirable and socially acceptable. These

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<sup>24</sup> *ibid.*

political, socioeconomic, and cultural factors were all taken into consideration during the development of this proposal, and the solutions were created accordingly.

## **II. V. The Global Health Ethics Framework on Which the Proposal is Based**

Throughout the development of our project proposal, we remained cognizant of the potential risks a participant might face during the implementation of our solutions. We recognize that people from low and middle income countries (LMICs), like Pakistan and India, as well as residents of rural communities within the United States are particularly prone to exploitation. Too often, projects and experiments conducted in locations of lower socioeconomic levels without the people of such regions reaping any of the benefits. In the words of Alex London and Jonathan Kimmelman, “it enlists those who suffer the heaviest health burdens to advance the science that will create the greatest social value for people living in high-income [regions].”<sup>25</sup> Research is, according to the World Medical Association, “only justified if there is a reasonable likelihood that the populations in which the research is carried out stand to benefit from the results of the research.”<sup>26</sup> Currently, the lack of distributive justice hinders people of LMICs and rural regions from receiving adequate drug abuse prevention and treatment. Our project highlights the importance of finding a solution that provides fair benefits to people of all regions and socioeconomic levels, and we use London’s conceptual framework in ensuring distributive justice in order to counter increasing drug abuse.

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<sup>25</sup> London, A. and Kimmelman, J (2008). “Justice in translation: from bench to bedside in the developing world.” *Lancet*, 372: 82-85.doi: 10.1016/S0140-6736(08)60996-4

<sup>26</sup> *ibid.*

### **III. Project Design and Methods**

The intention of this project is to prevent and better treat drug addiction. In order to most effectively execute our plan, we utilize the London framework as a guide for our work. As mentioned previously, London acknowledges the unequal distribution of resources as a significant problem among communities across the world. Through our strategy to the increase treatment, resources will be more equally distributed and thus reduce the inequalities that exist among rural and urban communities. In addition to the improvement of data, an education program will also be implemented as a preventative measure in order to provide individuals with the information necessary to make informed, autonomous decisions.

Immune to fluctuations in the economy or shortages in healthcare labor, education is a long-lasting tool that can be used to increase knowledge of residents in rural and urban areas alike. Education provides people with the skills necessary to develop perceptions of risk which is necessary to prevent an increased number of drug addiction cases. If iPhones and Pepsi bottles can be found on every corner of the world, why are people in the United States, Pakistan, and India still deprived of the basic security and infrastructure of an education to make informed decisions?

We propose implementing a two-year pilot educational program in both Indiana and the Punjab region. The program's curriculum would focus on the risks and consequences of drug abuse and addiction. Properly certified educators and healthcare workers would utilize this pilot program in both rural and urban areas with the intention of increasing knowledge and shifting attitudes towards drug addiction.

In addition to serving as a preventative measure, an educational program can also

function as a tool to combat the strong stigma attached to drug addiction. Although the issue of stigma arises from a variety of factors, such as culture and social structure, the British Journal of Psychiatry explains that stigma can be viewed as “an overarching term that contains...problems of knowledge (ignorance) [and] problems of attitude.”<sup>27</sup> The power of this stigma often results in hesitancy towards seeking assistance for drug addiction. Because of this, we hope that our proposal to expand educational programs will contribute towards a reduction of the stigmatization surrounding drug abuse/addiction in addition to preventing more cases of drug addiction.

Another critical ethical issues surrounding drug abuse in both the region of Punjab and the United States is the lack of data in both countries that is important in order to provide a person with the full autonomy necessary to make informed decisions. Even though drug abuse is a such a large issue that affects a large population in both countries, the fact that there is a lack of accurate statistics and information is ethically concerning because it hinders the autonomy of policy decisions as well as those affected by drug abuse. Why has the United States government not tried to encourage the growth of data about drug abuse? Why is there not data about how to counter drug abuse and about the populations most affected by drugs? Similarly in India we see the same problems when it comes to data about drug abuse. Drug abuse is a wide known problem, but why has the Indian government not attempted to discover the root of the drug problems in Punjab by conducting studies and research? According to an article released by the Indian Journal of Medicine, “it can be stated unambiguously that India requires a robust national

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<sup>27</sup> Thornicroft, G., Rose, D., Kassam, A., Sartorius, N. (2007). Stigma: ignorance, prejudice, or discrimination? *The British Journal of Psychiatry*, 190 (3) 192-193; doi: 10.1192/bjp.bp.106.025791



Drug Abuse Monitoring System and efforts must be made to improve compliance and streamline the process of data collection. Even online submission of data should be explored”<sup>28</sup> Further, both India and the United States should incorporate a treatment demand indicator in their data which provides information on the amount of people entering treatment programs in order to fight drug abuse. This indicator “provides insight into general trends in problem drug use and also offers a perspective on the organisation and uptake of treatment facilities. ‘Treatment demand data’ come from each country with varying degrees of national coverage, principally from outpatient and inpatient centres’ treatment records”<sup>29</sup> This type of data will also allow there to be a national perspective and approach towards drug abuse and creates national protocols. The data that is collected will help create indicators and protocols that can provide classification of treatment centers and gives guidelines on methods of data collection, research, and analysis.<sup>30</sup>

We suggest that United States, India, and Pakistan improve data collection by creating a database that collects information about statistics involving drug abuse, trends, and other details that can give the public knowledge and health practitioners important statistics for them to analyze. Specifically, in the Punjab region it is important to complete an assessment of the data bases and assess the validity of the data that is on it. Even further, another important factor is to increase and improve the access to data for the general public. This relates to London ethical framework of ensuring that everyone of every socioeconomic background has equal opportunity to access valid data, and that this data is easily accessible to the entire population of all three

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<sup>28</sup> Chopa, A. and Ray, R. “Monitoring of substance abuse in India – Initiatives & experiences”. *Indian Journal of Medicine*. June 2012

<sup>29</sup> “Treatment demand indicator — an overview of the methods and definitions used”. *European Monitoring Centre for Drugs and and Drug Addiction*. <http://www.emcdda.europa.eu/stats11/tdi/methods>

<sup>30</sup> “Treatment demand indicator — an overview of the methods and definitions used”. *European Monitoring Centre for Drugs and and Drug Addiction*. <http://www.emcdda.europa.eu/stats11/tdi/methods>

countries.

It is also important to address the areas in which both India and Pakistan must adapt to what is already available in the United States. Our regions of focus include the state of Indiana which is in the U.S., and the Punjab region which covers both India and Pakistan. In terms of what is currently available, there is a sizeable gap in the access to treatment, prevention and data between the three countries. As we have cited throughout our proposal, there is solid data on drug abuse across the United States including Indiana. In implementing the policies in our proposal, it is vital to keep in mind the areas in which both India and Pakistan are still developing. In the state of Indiana it is clear that the number of treatment slots are not sufficient for the drug abuse problem in the state. For both India and Pakistan, their treatment centers must first be brought to the standard for professional drug abuse treatment and then proceed to addressing the larger problem of making space available for those in need. This is where the London framework is critical because the improvement of treatment centers should occur in both rural and urban areas, and people who struggle with drug abuse who are in a low socioeconomic class should have equal opportunity to treatment centers and slots. In order to increase the number of treatment slots and launch the education program, we would need funding by the NIH (specifically the Fogarty International Center) as well USAID.

#### **IV. Evaluation**

Our evaluation will be conducted by the state level governments of Indiana and Punjab in collaboration with the national governments of the United States, Pakistan, and India. Our project will be evaluated mainly by outcome and process indicators. We specified three areas in

the drug abuse that need to be addressed in order for there to be a decrease in the population of drug abusers. Refer to the table at the bottom of the paper: we have outlined our goals, indicators and measures, data sources, data collection method, and any additional comments. We highlight the importance of distributive justice, and how governments must recognize the socioeconomic conditions that lead to certain populations to be more vulnerable to drug abuse according to London's ethical framework. Because of this, we put the responsibility on both state and national governments to work together to ensure the success of this three level approach to understanding and facing drug abuse. We suggest creating a two year educational pilot program that can be measured by the number of participants, their improvements in knowledge, attitude changes, and practiced action. We identify a lack of readily available treatment centers in India, Pakistan, and the ratio of patients to healthcare professionals. Finally we look at the necessity to create a database in all three countries to improve data collection and to ensure the validity of the data collected. This is particularly important in the Punjab region and to increase the accessibility to this database as well. This can be measured by the amount of viewers and by analyzing the quality and utility of the data.

However, we recognize that it is very difficult to attribute affect directly to our proposal because there are many factors that can influence the increase or decrease of drug abusers that cannot be accounted for or easily identified. We also recognize that these outcomes and results can be inconclusive and cannot necessarily prove whether a specific treatment program will have similar results for all addicts. It is difficult to measure treatment because once people seek treatment they often relapse and do not return to treatment. We realize that there are other factors that might play a role in drug abuse and treatment that is outside of our project. Examples are

infusion of funds, decrease in funds, and greater accessibility to drugs. Further, treatment assessment and effectiveness can be very subjective due to varied psychological responses to treatments that can depend heavily upon mental health. We hope to see the development of our recommended policies and we hope to see these recommendations put into practice by the state and national governments of India, Pakistan, and United States.

**Table 1:**

Goal/Strategy	Indicators/measures	Data Source(s)	Data Collection Method	Comments
Educational Program- Pilot class in Punjab region of India and Pakistan as well as in Indiana that focuses on the consequences of drug addiction	Number of participants in the program, improvements of knowledge, attitude of participants, and practiced action	State Boards of Education	Surveys of participants and of teachers and health care practitioners	
Increased centers for treatment	Physical number of treatment slots, ratio of patients to healthcare professionals	Department of health in all three countries	Annual reports that is submitted by the boards of the treatment centers and analyzed by department of health	Annual report includes number of slots and ratio of patients to healthcare providers
United States and Punjab: improve data collection through creation of database. Punjab region: complete assessment of data bases and assessing validity of data. improve access to data	Process outcome: completion of assessment and data bases Access to data: increase amount of viewers on databases Analyzing quality and utility and data	Database assessed by a collaborative team of members from department of education and department of health	Comprehensive review of database that is created	

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