

Out Reach to Clergy, Elders, and Tribal Leaders May Be a Cost Effective Method to Reduce the Burden of Opioid Use in Afghanistan



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Abstract:

Introduction: The trend in opium production in Afghanistan continues upward. According to the 2013 United Nation Office of Drug and Crime report, Afghanistan was the largest supplier of opium in the world with potentially producing 5,500 tons of opium in 2013, a 46% increase from 2012. Poppy trade accounted for 4% of GDP in 2013. Less than 3% of agricultural land of Afghanistan (668 – 919 square miles) was devoted to poppy cultivation in 2013. Thus, if the trend continues, Afghanistan has the potential to produce large amounts of opium. High price of opium, readily available international clientele, devotion of small piece of land to a large profit in a short season are among the reason that makes cultivation of poppy attractive. This upward trend is more likely to increase opium/opioid dependence in Afghan population (as well as global community): opiates use by Afghans has increased 30-folds from 2001 to 2012. Once a rare event, now it is commonplace to see heroin users all over Afghanistan. Thus identifying methods that will decrease opioid use by Afghans is of paramount public health interest. Compared to forced eradication strategies; educating the influential parties seem more effective in reducing the burden of opiate use disorders in Afghanistan. **Method:** Data from United Nation Office of Drug and Crime (UNODC) reports along with finding from Najeeb Manalai's research (expert on poppy reduction programs in Afghanistan) were utilized. We analyzed the trend in reasons for not cultivating poppy plants over the past decade to determine the potential protective measures. **Results:** In the first half of the past decade, influential figures in rural Afghanistan (tribal leaders, elders, and clergy) were paid for their efforts to eradicate poppy cultivation. This effort resulted in increased number of poppy-free provinces. However, with worsening in security conditions and shift in international methodology regarding poppy cultivation in Afghanistan, the financial incentives to enforce eradication have dwindled and more provinces have started to cultivate increasingly larger amount of the poppy plants. Although more farmers are cultivating poppy, there is increase in the number of farmers that have voluntarily stopped poppy cultivation for religious and social reasons (e.g. human suffering). **Discussion:** Since the shift in global stance on forced-eradication of poppy plants in Afghanistan is likely to increase opium production, the plight of opioid addiction is likely to spike even higher than current level in Afghanistan. For example, from 2005 to 2009, there was 140% increase in opiates dependence in Afghan population. With increased insecurity, decrease global assistance to Afghanistan, increasing number of unemployed (especially youth), and readily accessibility of opioids in Afghanistan will most likely increase the use by Afghan. Capitalizing on their strong religious beliefs, educating influential figures can be an asset in reducing cultivation and usage of opium. **Conclusion:** Historically influential figures have played an important role in both promoting and prohibiting opium culture. Paying influential figures for their efforts may reduce the opium production (and use) temporarily; which could have paradoxical effect in long-term. Programs to educate influential figures (rather than paying them for their efforts) may produce long-lasting effects and be the most cost-effective methods in reducing both opiate's use and opium production in Afghanistan.

Introduction:

- Opium has been cultivated in Afghanistan for millennia
- Opium economy has been an essential part of Afghanistan agriculture, however, in the recent decade increasingly larger amount of GDP is attributable to opium economy
- Increased cultivation of opium in Afghanistan has coincided with increasing opium, morphine and heroin use in Afghanistan
- Once a rare occurrence, now it is commonplace to see homeless Afghan youth using opium products; from 2005 to 2009, there was an 140% increase in opioid use in Afghanistan
- Forced to work harder and longer, Afghan women increasingly misuse opium products.
- These women also give opium to their children as well (so that the children sleep the women can work); thus many children are born to opium addicted mothers and many more are exposed to opium products as early as infancy
- International efforts have been not helpful in reducing the opium impact on Afghan society
- New methods are needed to cope with this plight of opium driven economy looking at reasons that farmers stop or never cultivate opium poppy

Method:

United Nation Office on Drug and Crime (UNODC) has been collecting data on opium cultivation and its economic impact in Afghanistan in the recent years. The collected data have major shortcomings, nonetheless, these reports are the most accurate statistics available. This Data-bank provide longitudinal variation in Afghan population in regard to cultivation of opium. We analyzed all the available reports by UNDOC for trends that predict a better sustainable opium irradiation measure for Afghan people. We also included research findings from Najeeb Manalai, MD's in our analysis and conclusion.

Results:

Population (millions)	31.8
Median Age	18.1
Life Expectancy	50.49
Area (hectares)	65223000
Arable Land (hectares)	7794148.5
Opium Cultivation (hectars, 2013)	209000
Land Devoted to Opium (%)	2.7
2013 Opium Potential (in tons)	5500
Labor Force (millions)	7.5
Unemployment (%)	35
GDP 2013 (\$billion)	21.04
All Other Exports (\$ billion)	0.38
Opium Economic Impact (\$ billion)	3.1

Year	1000 hectare	Opium Tons	Price/Kg	Cultivating Families
2003	80	3600	283	264,000
2004	131	4200	92	356,000
2005	104	4100	102	309,000
2006	165	6100	94	448,000
2007	193	8200	122	509,000
2008	157	5480	95	366,500
2009	123	6900	48	245,200
2010	123	3600	169	248,700

Figure 1. increasingly larger number of Afghan use opioids including injectable products

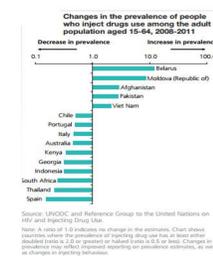


Table1. Demographics of Afghanistan and opium economy

Table 2. Historical economic impact of opium cultivation

Figure 2a and 1b: increasing numbers of provinces cultivate increasing amount of opium (2003 vs. 2013). Opium cultivation has direct correlating with worsening in security situation and poor access to global economy

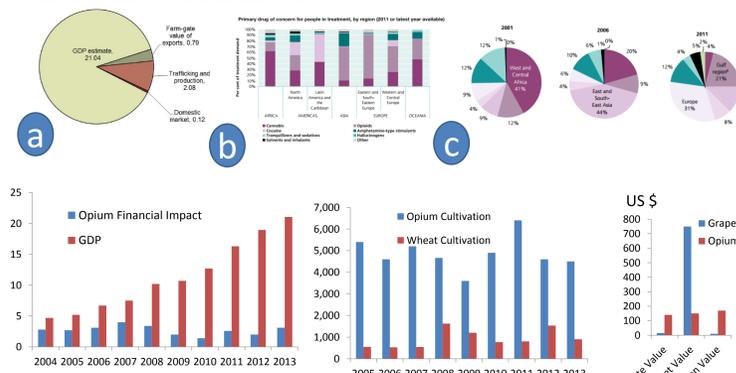
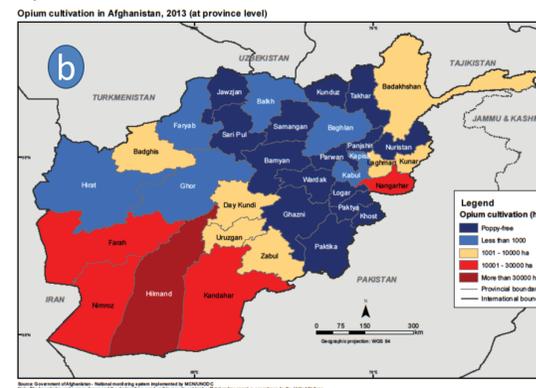
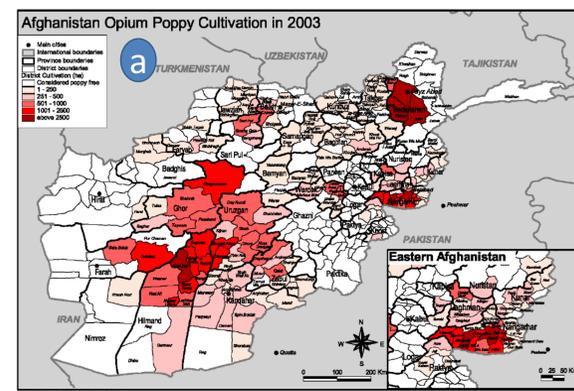


Figure 4: although increasingly smaller portion of GDP (\$ billion) is dependent on opium trade, it still present the single most exported product of Afghanistan

Figure 5. Opium cultivation still remains largely profitable compared to other crops

Figure 6. Stability in price and large profit from small piece of land are among reasons for continued opium cultivation

Figure 3. Opium economy is increasing in Afghanistan (a); more of the opium products originating from Afghanistan makes its way to the rest of the world (b) particularly Eastern Europe (c)

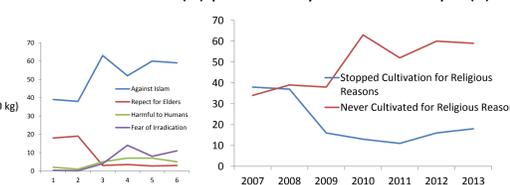


Figure 7. Religious motivation is the single most common factor for not cultivating or stopping cultivation. Increasingly more people stop cultivation because of the perceived harm to others. Forced irradiation has had little impact.

Figure 8. Although religion plays a major role in stopping cultivation, the vast majority of people who never cultivated were motivated by religious belief systems.

Conclusion:

- Opium poppy cultivation has increased substantially in the recent decade; still only 2.7% of the arable land is devoted to opium poppy
- If the trajectory is not reversed, Afghanistan has capacity to produced virtually unlimited amount opium (larger than the demand by the world)
- The government efforts have paid off little in eradicating the opium: most strategies have been abandoned soon after implementation
- International approaches such as buying opium from the farmers, assisting government forces to forcefully eradicate the opium, providing other incentive to farmers (seeds, fertilizers, financial assistance etc.) have all been failed
- The only consistent force preventing farmers from cultivating or causing famers to stop cultivating has been religious ideology
- Increasingly more people are also becoming aware of the harmful effect opium economy has on other humans since now they see people suffering from opioid addiction
- Therefore, the most cost effective is educating the community about the harmful effects of opium on other humans and capitalize on people's religious beliefs to discourage opium cultivation.

Conclusion:

- Afghan opium economy has been detrimental to global health on many levels
- Its has worsened security in Afghanistan
- It also has exposed larger population of the world to opium products
- If not dealt with effectively, the epidemy of opium plight can become hard to contain
- More and more countries are getting involved in opium economy (including African nations)
- The only sustainable measure to reduce opium cultivation in Afghanistan is educating people about harmful effects of opium on other humans
- Local leaders and religious figures can play an essential role
- These measures would be far more less expensive and far more effective than the current strategies based on financial incentives to famers

References:
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Affiliations:
 1. Albany Medical College 2. Afghan Psychiatric Association
 3. Howard University 4. Afghan ministry of public health 5. Kabul medical university

