Abstract

Counterfeit pharmaceuticals pose a huge global public health threat especially in Africa leading to hundreds of thousands of deaths each year. Poverty, corruption and lack of policies and legislation heighten the problem. However, new technological advancements and innovations are being employed to help curtail this global health menace.

**Keywords:** Counterfeit drugs; Fake pharmaceutical industries

Introduction

A 55-year-old lady from Ghana had been taking the same brand of medication, from the same pharmacy, to treat her seizures for years. One fateful day, she decided to use a different pharmacy when she was in a hurry to obtain her medication. This lady developed a serious skin reaction, which was later determined to be cancerous. A carcinogenic substance which was later found in her seizure medication was underlined as the cause of her cancer. Upon hearing about this case and subsequently reading about the two cases below, I was inspired to write this piece.

In Nigeria, it was reported in 2009 that 84 children were killed as a result of toxic chemicals that were laced with teething medications for babies [1]. In 2012, Angolan customs busted counterfeiters importing what turned out to be the largest fake medicine imports in history, when containers shipped from China to Luanda were filled with over 14 million packets of fake antimalarial drug, Coartem [2].

Drug Counterfeit: How big is the Problem?

World Health Organization (WHO) defines a counterfeit drug as a drug made by someone other than the genuine manufacturer, by copying or imitating an original product without authority or right, with a view to deceive or defraud and then marketing the copied or forged drug as the original. Counterfeit products encompass drugs that may have wrong active ingredients, fraudulent packaging, insufficient active ingredients and/or absence of active ingredients. Interpol and WHO both reported that the state of fake pharmaceuticals in Africa was anywhere between 30-60% [3]. To shine a light on the matter, a study published in the international journal of tuberculosis and lung disease found 1 in every 6 pills in Africa to be fake [4,5]. Furthermore, a survey conducted by National Institute of health, which examined over 2600 malaria drug samples across 21 sub-Saharan African countries determined that 20% of such drugs were fake and one-third were of poor quality [6].

Drug counterfeiting is not just a problem of Africa alone; it is a global phenomenon that threatens global patient safety. According to WHO, about 60% of all reported drug counterfeits came from developing nations whereas 40% of such reports came from developed nations between 1999 and 2000 alone [7]. The British think-tank international policy network estimated that globally, 700,000 deaths are attributed to fake malaria and tuberculosis medications alone, while WHO estimated that about 100,000 deaths per year in Africa are linked to fake pharmaceuticals [8].

A booming industry in Africa

Drug counterfeiting is booming in Africa and there are many reasons for that. It is understood that many substandard and fake pharmaceuticals make their way to Africa from countries such as China and India. A report in 2009 revealed that over 45 million antimalarial drugs valued at over $438 million were shipped from India and China to West Africa alone [9]. However, Ashifi Gogo, the CEO of Sproxil a technology aiming to mitigate fake pharmaceuticals noted that the fake pharmaceuticals manufacturers originating from Africa are also adding on to the burden [8].

USA today reported the problem to be a multi-billion dollar industry which infers that the fight to halt the problem will remain relentless. The expected growth rate of drug counterfeiting is projected at 20% in a foreseeable future [10]. Lack of necessary legislation, regulatory enforcement and appropriate drug laws are some of the issues identified to be crippling the fight against drug counterfeiting. Lack of deterrent sanctions, coupled with meager punishments ensures that there is no fear in engaging in drug counterfeiting. In Africa, one would often find unlicensed and unregulated vendors selling medications off the streets. Such medications are easily accessible to the poor. Corruption, bribery and conflict of interest have been underscored as some of the reasons for drug counterfeiting proliferation in Africa. As the problem continues to propagate, government officials that are tasked to oversee medication imports in their respective countries yet continue to engage in unscrupulous behaviors such as taking bribes. A behavior which ultimately ensures that fake pharmaceuticals continue makes their way into their countries. Corruption and conflict of interest have ensured that government officials fail to enforce laws and subsequently refrain from arresting individuals engaging in drug counterfeiting.

The desperate demand for drugs in many African countries, coupled with global drug shortages to meet such demands can as well incite counterfeit proliferation. Furthermore, high drug
costs and the poverty levels in many African countries also ensure that the counterfeit industry will continue to prosper. Because most Africans receive healthcare on a fee-for-service basis, they are always lurking around to ensure that the medication needed for their condition is the cheapest one they could find. A study conducted by Health action international and WHO noted mark ups of anywhere between 30-80% of retail prices in licensed and regulated vendors [8]. Patients in need of a medication will inevitably ditch buying medication from licensed and regulated vendors, owing it to poverty.

The burden

The obvious public health risk for using fake pharmaceuticals is that the users’ health may worsen as a result of taking inappropriate pharmaceuticals or one that is laced with a poisonous or a carcinogenic substance. Heavy metals such as mercury, aluminum, lead, cadmium, arsenic, chromium, uranium, strontium and selenium are found in fake pharmaceuticals. Poisonous products such as polychlorinated biphenyl, rat poisons, boric acid, road paint, wall paint, floor wax and antifreeze are also found in fake drugs [11]. The aforementioned metals and poisons can cause cancer or have a debilitating effect on a person’s neurological, urinary, skeletal, cardiac and intestinal systems.

Another problem that can arise from taking counterfeited antimicrobials is resistance, which in itself is a global public health threat. There are many initiatives being implemented across the world to decrease antimicrobial resistance. As a result, taking fake or substandard pharmaceuticals only make the fight against microbial resistance even harder. Needless to say that proliferation of fake antimicrobials also hinder advances being made in the fight against diseases such as HIV/AIDS, malaria and Tuberculosis. Death can also ensue as a result of taking fake pharmaceuticals, either from lack of active ingredient, from a poisonous ingredient, or a combination herein.

Solving the problem

Certainly, with the fake pharmaceutical industry booming in Africa and around the globe, measures to mitigate its threat on patient safety and its proliferation are imminent. Firstly, education among the general public will serve as a proper tool to reduce the prevalence of the issue in Africa. Teaching the public about the potential harm they will be exposed to from taking fraudulent pharmaceuticals from hawkers, street vendors and peddlers will certainly aid in the combat against drug counterfeits. The education should emphasize the need to buy drugs from only legitimate or regulated vendors. Such education should also involve advising patients to report any perceived lack of efficacy from any medication they may have taken, as well as any adverse drug event experienced.

Moreover, the education should not end there with the general public; government officials who are tasked to enforce and regulate drugs in their respective countries should as well be educated. For these officials, the education should focus on the severity and the prevalence of the problem, as well as the potential risk it poses to the general public. Education should emphasize the need to enforce and regulate laws and legislation in their respective countries. Furthermore, the education should be expanded to the street vendors, peddlers and hawkers. For this group of people, the education should hone in on the potential damage they are causing others from selling them fake products. Moreover, instead of ousting illegal vendors off the streets, governments should emphasize on initiatives to regulate these vendors to ensure that they are at least selling the appropriate products that are safe. Forcing them off the street will inevitably fail, as poor people in this part of the world will forever patronize cheap vendors. As such, effective measures to regulate them will be the only way to ensure the safety of the desperately sicken Africans who are always at the danger of ingesting poisonous substances.

Strong will and commitments from various government officials to tackle this issue from the basis of enacting strong legislation, which emphasizes severe sanctions that will serve as deterrence to those who engage in such business, are desperately needed. Currently, it is understood that sanctions against illegal sale of fraudulent pharmaceuticals are not severe enough to deter such behaviors. For instance, an Interpol raid in Uganda in 2009, which discovered five tons of fake drugs, only convicted five people, of which each one of them were only fined $520 [7]. An appalling and disgraceful excuse for “conviction” is undoubtedly as a result of conflict of interest and corruption. A raid with the potential to kill many people was left virtually unpunished. Until government officials dispel themselves from corruption and conflict of interest, the combat will remain incessant and cacophonous. Until the penalties for such grave act of misconduct are treated as a crime, the matter will forever be present.

Indigenous lifestyle is also a contributory factor to the drug counterfeiting plague in Africa. As mentioned earlier, the fee-for-service system is vastly prevalent in Africa and most prescription drugs are extremely costly when purchased from regulated or legitimate vendors. A poverty stricken continent as Africa is vulnerable to drug counterfeiting, hence its proliferation. Government subsidization of imported pharmaceuticals to ensure that access to quality healthcare to the indigent is of the essence. Government can impose all kinds of laws and regulations it desires, however, lack of access to quality healthcare will forever ensure that fake pharmaceuticals will encroach the African boarders and inevitably inflict harm to its people.

The silver lining?

There is a reason to smile: 29 pharmaceutical companies globally have provided funding to Interpol to combat drug counterfeit. Additionally, technology is being utilized in Africa to fight against drug counterfeit. Mobile phone usage on the African continent is providing the medium needed to battle drug counterfeit. For example: companies such as mPedigree and Sproxil have designed a system whereby consumers will simply scratch off an encrypted label on their respective drug packages and text the encrypted code to the manufacturer to verify the drug’s authenticity for free [8]. Upon texting the code to the manufacturer, the consumer then receives an instant message to confirm the drug’s authenticity.
Conclusion

There is no doubt that this debilitating plague on the African continent needs to be eradicated. Past and current initiatives, laws, regulations and legislations to combat the problem have been rebuffed, mainly because of public ignorance, corruption, lack of enforcement and poverty among other things. There is no denying that the fight to oust this issue will continue to remain relentless; however, new methods to solving this problem have never been desperately needed. Various sectors of the public are losing hope and trust in the healthcare system. Trust in the healthcare system should not dissipate at the hands of importation of fake pharmaceutical. However, until proper enforcement and enactment of new laws that emphasize stern and severe sanctions are implemented, the war against drug counterfeit will forever remain relentless at the expense of consumers who will forever patronize drug counterfeiters due to easy access and cheaper drug prices.

References

1. Lydia P (2009) 84 Children are killed by medicine in Nigeria. The New York Times, USA.