

# Skin-Lightening Practices and Mercury Exposure in the Somali Community

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Somali women often use creams and soaps to lighten skin tone, fade freckles or get rid of age spots. Use of these products raises a health concern, as some have been found to contain mercury. This article describes an investigation that involved interviewing Somali women about skin-lightening practices and the products they use and then testing those products for mercury. Twenty-seven samples of products purchased at markets in Minneapolis and St. Paul were analyzed by the Minnesota Department of Health for specific mercury levels. Eleven of the 27 (47%) were found to contain mercury. Some exceeded the current FDA threshold of 1 part per million. This has prompted both state and federal health officials to issue warnings about the use of these products.

An estimated 87,500 Somalis have settled in the United States since the start of civil war in Somalia in 1991.<sup>1</sup> To escape the fighting, many fled to refugee camps in neighboring countries such as Kenya before migrating to Europe and North America. Minnesota now has one of the largest Somali communities in the United States, with some 32,000 people;<sup>1</sup> many Somalis have migrated here to reunite with family members.

Although Somalis living in Minnesota are adapting to the ways of their new homeland, many retain traditional values. One of those is about beauty. Most Somali women believe lighter skin is more beautiful than darker skin. They see having light skin as more socially acceptable and believe it will increase their chances of finding a husband.<sup>2</sup> Consequently, many Somali women living in the United States use skin-lightening products. These products, which were widely used in Africa, are thought to eliminate imperfections and even out skin tone.<sup>3</sup> Some of these creams and soaps have been found to contain inorganic mercury.<sup>4</sup>

## Skin Lighteners and Mercury

In 2011, a Somali health educator with St. Paul-Ramsey County Public Health

raised concern that Somali women were using skin-lightening products that may contain mercury. This was based on her historical knowledge of the practice in Somalia as well as recent reports about skin-lightening products containing mercury being discovered in Chicago, California and New York. As a health educator, she conducted interviews with Somali women in the community, which confirmed her concerns. She then brought her findings to leaders of the St. Paul-Ramsey County Public Health Department.

Cosmetic products containing mercury are banned in Minnesota. In addition, a number of skin-lightening products that contain hydroquinone have been banned in Europe and Canada. These chemicals are proven neurotoxins and have been linked to birth defects if used by women during the prenatal period.

Most of the skin-lightening products used by Somali women are manufactured in Asia or the Middle East. According to the U.S. Food and Drug Administration, they are brought into the United States and illegally sold online and in stores owned by immigrants from Latin America, Asia, the Middle East and Africa.<sup>5</sup>

To understand more about use of these products in Minnesota, we conducted interviews with seven Somali women in April of 2011. Our intent was to learn

which facial creams were being used, why, how often, and if women use them when they are pregnant or breastfeeding.

The women indicated they use skin-lightening products to get rid of dark spots from pregnancy and be more attractive to men. Most of the surveyed women mixed together four creams: Lemon Herbal Whiting Cream, Lulanjina, Diana and Dermovate. The first three were later found to contain mercury, and the fourth is a steroid-based preparation. The mixture is poured into a container and placed in the refrigerator, as it is believed it is more effective when cool. All the women said they apply the creams to their entire body twice during the day and once in the evening, even when they are pregnant or breastfeeding. One of the interviewees indicated that she has used the creams since the second week after she gave birth in the hope of getting rid of the dark spots from pregnancy faster. Women said they use the creams more than usual before attending special events such as a wedding. They also indicated that they fear skin discoloration if they stop using the creams.

We presented our findings to the leadership of the St. Paul-Ramsey County Public Health Department. Afterward, the Minnesota Department of Health sought to ascertain the level of mercury in several fre-

quently used products. The products were purchased from the Somali Mall (Karmel Mall) in Minneapolis and the Hmong Market in St. Paul. Twenty-seven samples of creams and soaps were obtained. A laboratory at the Minnesota Pollution Control Agency analyzed the products using mercury vapor testing. Eleven of the 27 products contained inorganic mercury (Table). The Food and Drug Administration (FDA) allows only trace levels of mercury in creams (less than 1 part per million).<sup>6</sup> The levels in the products tested ranged from 4.08 ppm to 33,000 ppm. The samples were then taken to the Minnesota Department of Health, where they were re-analyzed.

The Minnesota Pollution Control Agency and the FDA then looked at how the products were getting into the state. They determined that one store supplied the other stores in the Twin Cities. A similar pattern had been seen in cities in Illinois, New York, California and Texas. In June 2011, the Minnesota Department of Health issued a warning urging people to stop using the contaminated products.<sup>7</sup> In March 2012, the FDA issued a consumer alert about skin-lightening products.<sup>5</sup> The alert warned that infants and small children might be exposed to mercury if they touched parents who have used these products, got the cream on their hands and then put their hands and fingers into their mouth.

Inorganic mercury exposure is associated with rashes, skin discoloration, scarring, secondary bacterial and fungal infections, and even renal impairment and damage to the nervous system. Exposure also may be associated with anxiety, depression, psychosis and peripheral neuropathy.<sup>8</sup> It should also be noted that mercury acts as a teratogen during pregnancy and can be transferred from mother to infant through breast milk.

No cases of mercury poisoning associated with these products have been identified in Minnesota. However, in California health officials identified a 39-year-old Mexican-American woman in Alameda County who was found to have mercury poisoning after presenting with headaches,

TABLE

### Inorganic Mercury Levels in Skin Lightening Creams

PRODUCT	MERCURY LEVEL-PARTS PER MILLION (PPM)
Lemon Herbal Whitening Cream	33,000 ppm
Lulanjina – yellow cream	16,700 ppm
Lulanjina – white cream	12,800 ppm
Crème Diana C.T.R.	6,370 ppm
Qian Mei – white cream	4,650 ppm
Fasco	4,600 ppm
Milk Cream	4,600 ppm
Crème Diana C.T.R. (a second sample from a different country of origin)	4,180 PPM
Qian Mei – yellow cream	3,540 ppm
Jiao Li – container 2	1,700 ppm
Jiao Li – container 1	1,070 ppm
Cream Aghader	135 ppm
Savon pour L'acné Diana soap	31 ppm
Savon pour L'acné Diana soap	4.08 ppm

Source: Minnesota Department of Health

numbness, depression and forgetfulness. The likely source of the mercury was a skin-lightening cream smuggled in from Mexico.<sup>9</sup>

### Ongoing Work

Public health messages about the risk of mercury exposure from skin-lightening products are being disseminated in the Somali community through television and radio, in meetings with community leaders and at educational forums. In addition, efforts are underway to stop the sale of these products. Physicians and others who provide care to Somali women and other immigrants can help educate their patients about the potential dangers of these products as well. **MM**

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