

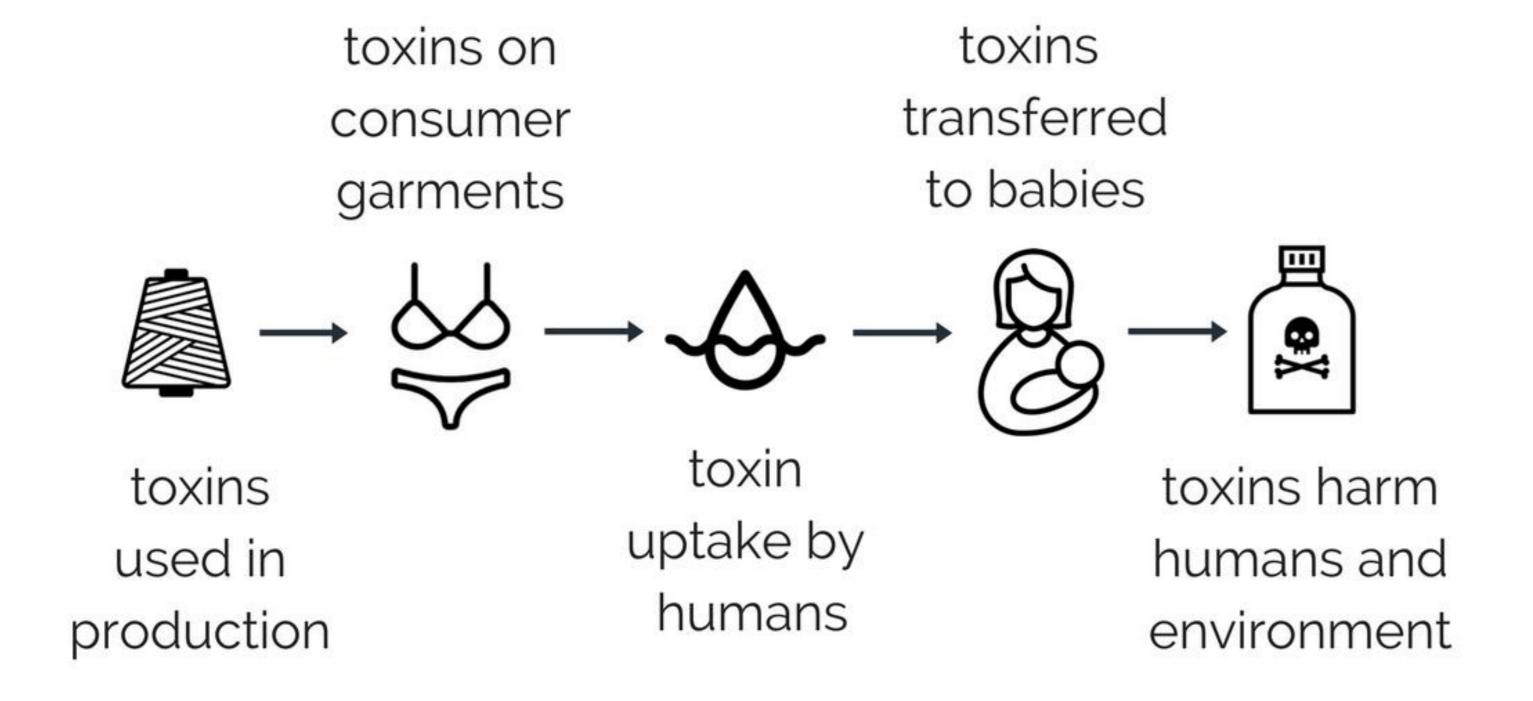
# AN ASSESSMENT OF APPAREL TOXIN IMPACTS ON HUMAN AND ENVIRONMENTAL HEALTH

LAUREN MENZER & KENDALL MILLER

## THE PROBLEM

over 8000 chemicals are used in apparel production, many of which are toxic, including known carcinogens and endocrine disrupting chemicals (EDCs)

apparel companies are aware of the toxins used in their supply chains, yet few communicate potential health risks, or provide non-toxic, safe alternatives



**figure 1**: our scientific proof illustrating the linkage of toxins used in apparel production to human and environmental health effects

our assessment of peer-reviewed literature made connections between toxin application to garments and eventual uptake by skin. toxins can enter the supply chain at various production stages

# THE CUSTOMER

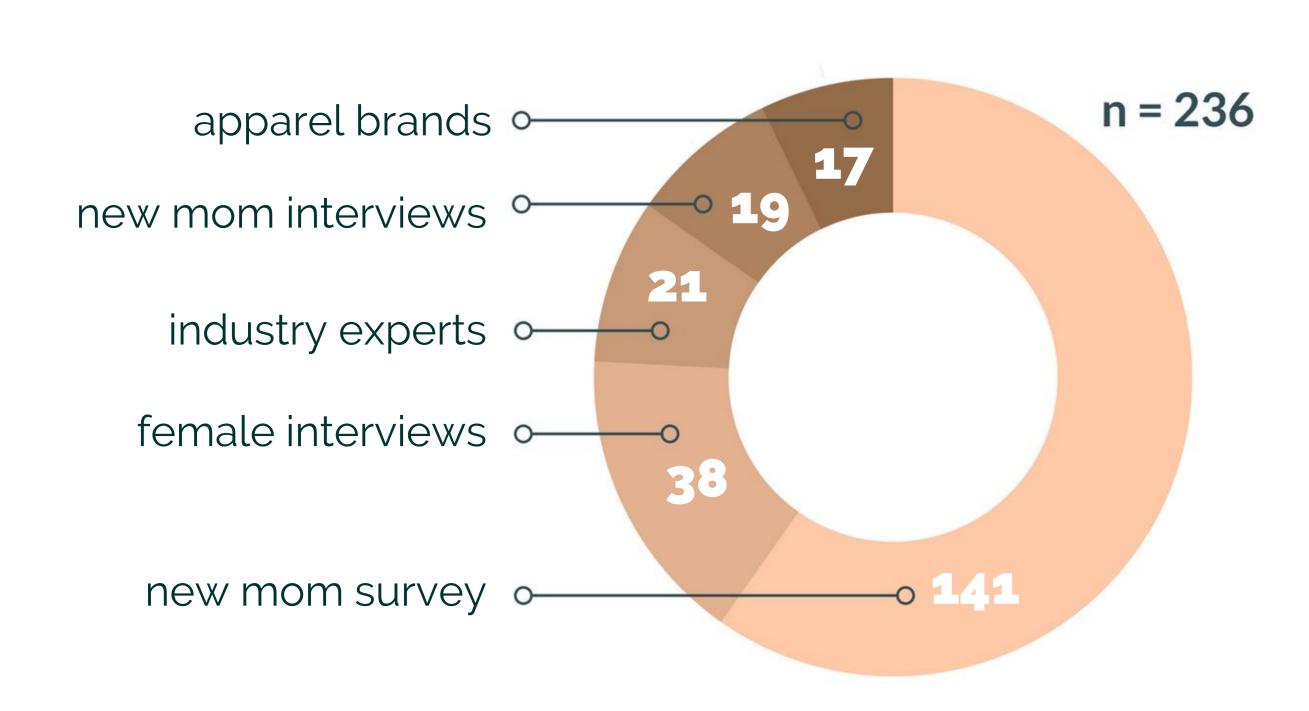


figure 2: breakdown of customer discovery interviews held

we spoke with over 200 individuals to determine our core customer. through these conversations, it was clear that new mothers are our target consumer

#### who we are

a brand providing organic, non-toxic, more supportive nursing bras that promote human and environmental health

# IDENTIFIED TOXINS

TOXIN	APPAREL USE	HEALTH EFFECT
CHLORINE BLEACH	whitening	respiratory
FORMALDEHYDE	wrinkle-free, shrinkage	carcinogenic
HEAVY METALS	dyeing	DNA, fertility
FLAME RETARDANTS	avoid burning	neurotoxin

figure 3: overview of some of the chemicals used throughout the apparel industry

# WHAT MOMS ARE SAYING

"There is such a craze right now for health conscious maternity and motherhood items; these moms are just there waiting for your product."

"You are doing it right. Getting parents is very smart, we don't want to harm our families."



figure 4: findings from KINN's new-mom survey, n=141

#### THE MARKET

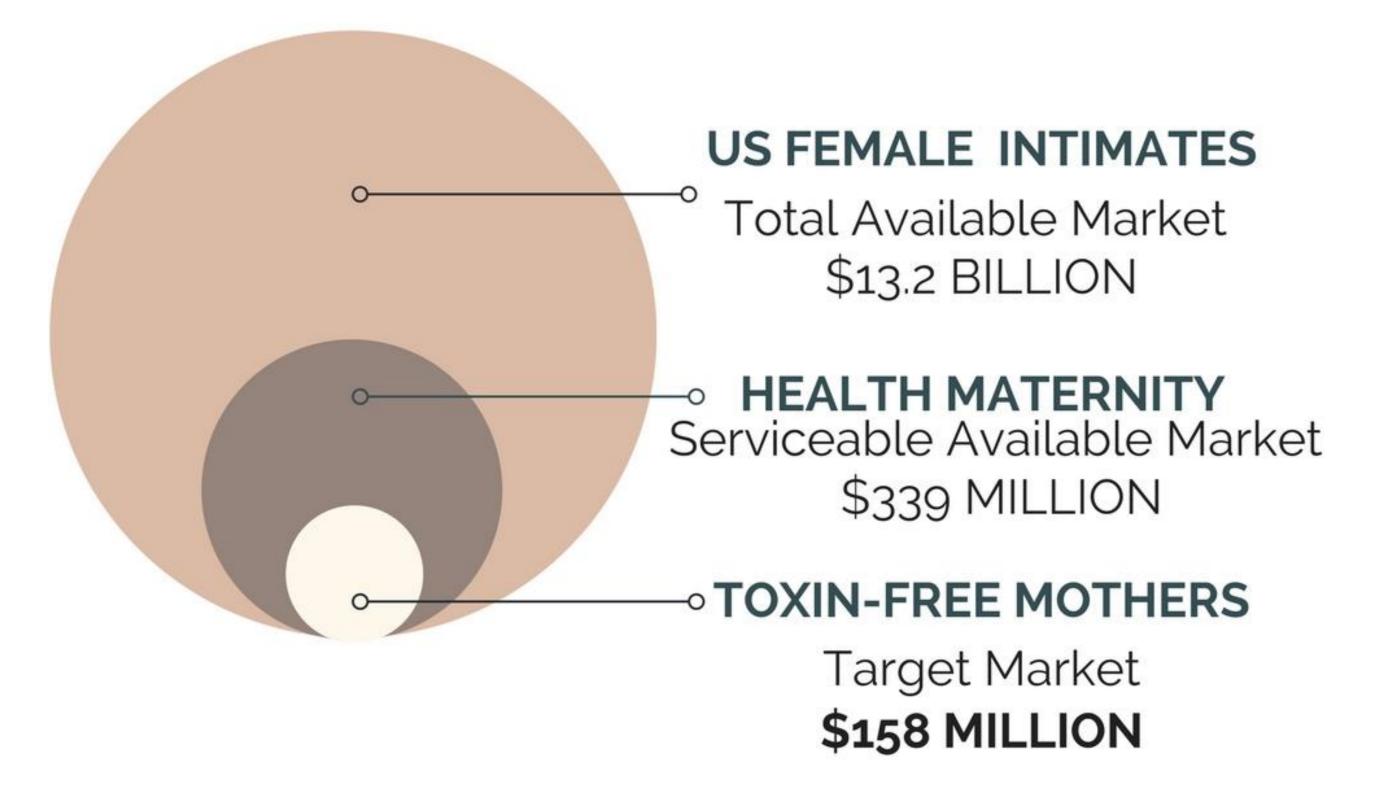


figure 5: breakdown of the total intimates' market to KINN's target market

the intimates industry is worth an estimated \$13.2 billion. KINN's target market consists of 35% of the current US nursing bra market, calculated from the new-mom survey results, targeting those mothers who already avoid toxins in their clothing

## THE ENVIRONMENT

- limit harmful chemical inputs throughout our supply chain for pollution prevention
- minimize human and environmental uptake of apparel toxins
- reduce exposure of babies and mothers to harmful apparel toxins

KINN is developing a supply chain that eliminates harmful chemical inputs, that harm human and environmental health. toxins can enter the supply chain as early on as pesticide application. by sourcing organic materials, food-safe dyes, and maintaining strict supplier relationships, KINN will ensure that new mothers have access to clean, safe nursing bras



#### **ACKNOWLEDGEMENTS**

Emily Cotter, Matt Potoski, Net Impact, Lucky Bug Clothing, and Llewellyn Miller