

Presentation Objectives

- Emphasize importance of using data for strategic decisionmaking
- Identify easily-available data sources to inform strategic marketing decisions
- Demonstrate how quantitative data can have implications for marketing plans and strategies

2

Often people who don't work with numbers shy away from quantitative analyses because they don't consider themselves "numbers people". But numbers are really another way of telling a particular story. And when we're thinking of the role of the private sector, and marketing and social marketing in particular, numbers can be very valuable to tell a story about the marketplace or the use of a particular product.

This presentation aims to demonstrate how using market segmentation analysis with a publicly-available data source can produce valuable and insightful information for social marketing programs. We operate primarily in environments that lack sophisticated market research data. This presentation will give a sampling of how publicly-available Demographic and Health Survey data can be manipulated to tell some very useful stories about consumers.

What is Market Segmentation?

- Broadly, a process that uses data to understand a customer's needs and how they decide to purchase one product over another.
- Marketing technique that targets a groups of customers with similar characteristics.

3

How to Segment a Market?

- 1. Begin with a reliable data source
 - Demographic and Health Surveys
- 2. Consider segmentation variables
- 3. Select relevant segmentation variables based on:
 - Product type
 - Audience
 - Marketing objectives
 - Special circumstances (e.g., national policy)
- 4. Use statistical software to analyze the dataset

4

We perform market segmentation analyses using a reliable, nationally-representative, population-based survey. These are primarily the Demographic and Health Surveys (DHS) funded by USAID and implemented by Macro and country Ministries of Health. These groups also now conduct AIDS Indicator Surveys (AIS), which contain biomarker data regarding HIV and other sexually-transmitted infection prevalence. The AIS datasets can be particularly useful if a researcher or program wants to evaluate the market for cotrimoxazole, or other prophylaxis given to HIV-positive individuals, for example.

The segmentation variables and the marketing objectives will obviously vary based on the product type and other special circumstances. If a researcher wants to develop a segmentation analysis for point-of-use water treatment products, for example, the "audience" may be households with a protected water source, as these households may be both more inclined to adopt use of a point-of-use treatment product and more able to afford purchasing a socially-marketed product.

We use statistical software, such as STATA or SPSS, to manipulate and analyze the actual datasets.

Benefits of Using Population-Based Surveys for Segmentation

- Nationally-representative surveys
- Fills in a gap in market research for countries in which there is no nationally-representative market data
- Inexpensive to use
- Ties health behavior to product use

5

There are multiple benefits of working with the DHS and other population-based survey datasets for market segmentation analyses. As stated earlier, we're primarily working in environments in which sophisticated market research data can be expensive and difficult to obtain. The DHS datasets are very extensive, covering everything from brand preference for certain contraceptive products to intent to use products at some point in the future.

Manipulating the DHS datasets allows us to develop both an estimate of the potential demand of a particular product or group of products, and create profiles of current and potential consumers.

Limitations of Using Population-Based Surveys for Segmentation

- Not sales data
- Not intended specifically for market research and social marketing programs
- Potential, future use is assessed through stated intent to use
- Survey respondents may not always report actual behavior

6

When working with DHS datasets for use in marketing and communications, however, we need to remember that there are still limitations to using DHS data. The DHS is a snapshot in time; it is not designed to be a longitudinal study, nor specifically a behavioral survey. The DHS does capture information regarding behavior that can be very interesting, however, such as condom use at last sexual encounter and sexual relations outside of a primary relationship.

The DHS also is not sales data; its use for estimating product demand can be useful in comparison to sales data, but should not be used exclusively as a proxy for sales data.

Estimating Product Demand

- Include relevant population, such as all women of reproductive age (15-49) or children <5.
- Consider both:
 - Reported product use
 - Reported intention to use product at some point in the future
- Develop total market estimate, not specific to brand

7

We estimate product demand by evaluating both current use of a product, and a stated intent to use that product at some point in the future. If 14% of all women either currently use oral contraceptives or state that they will at some point in the future, we apply this percentage to the total population of women of reproductive age in Uganda to arrive at an estimated number of potential users. Bear in mind that this analysis is not brand-specific, it's a total market analysis.

Market Segmentation Application: A Case Study of the Uganda AFFORD Social Marketing Initiative

- USAID-funded social marketing project
- Constella Futures is a subcontractor to JHUCCP
- Created to increase choice of and access to basic health products and services for all Ugandans
- Addresses family planning, malaria, child survival, safe water, sanitation
- Multiple-product portfolio

8

Constella Futures has conducted market segmentation analyses for many countries; this presentation will focus on a recent analysis done for the AFFORD social marketing initiative in Uganda, and its implications for marketing and communications strategies.

Establishing Socioeconomic Status

- Based on a standard of living index
- Factor analysis of household assets including:
 - Goods: radio, television, automobile, motorcycle, bicycle, refrigerator
 - Amenities: electricity, improved water and sewage systems
 - Housing construction: flooring, roofing, wall material, number of rooms

9

One of the ways in which we segment DHS data is to consider the socioeconomic status of the individuals surveyed. The 2006 Uganda DHS dataset (UDHS) includes a standard of living index developed by Macro using responses to questions in the survey that serves as a proxy for household income. Macro developed the index using factor analysis of household assets of survey respondents, including household goods, amenities and housing materials and construction.

For the purposes of this analysis, we have labeled the five quintiles 'E' (lowest socioeconomic status), 'D', 'C', 'B' and 'A' (highest). This nomenclature is consistent with the terminology that the AFFORD marketing and communications teams use to describe the socioeconomic segments of potential consumers.

Source: 2006 UDHS household survey

Wealth is Relative – A Profile of Uganda's 'A' (Highest) Socioeconomic Quintile

Asset or Material	% of Households in 'A' Quintile
Flush Toilet	6.7
Electricity	40.7
Refrigerator	14.4
Car or Truck	7.9
Cement Flooring	84.8
Iron Sheeting (Roof)	94.6

10

These statistics regarding the assets of the households in the 'A' wealth quintile are meant to illustrate that "wealth" and socioeconomic status in this context is relative – especially if you consider that not even 7% of households in the 'A' wealth quintile have a flush toilet, and less than half have electricity.

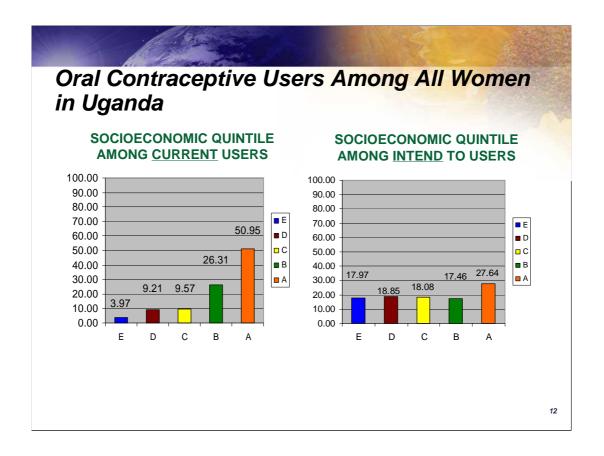
Source: 2006 UDHS household survey

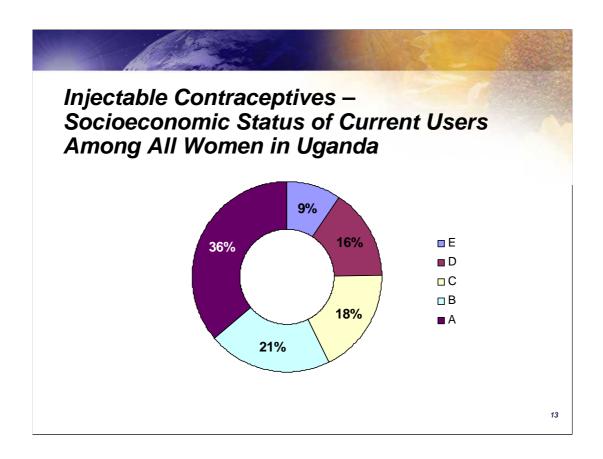
- Quintiles are designed to evenly distribute
 Ugandans according to asset ownership and other
 household factors relative to everyone else in the
 country.
- Primary difference between membership in the 'A' quintile and all of the others in Uganda is roofing and flooring material.
- Being a member of the 'A' (highest) socioeconomic quintile does <u>not</u> mean that an individual is extremely wealthy.

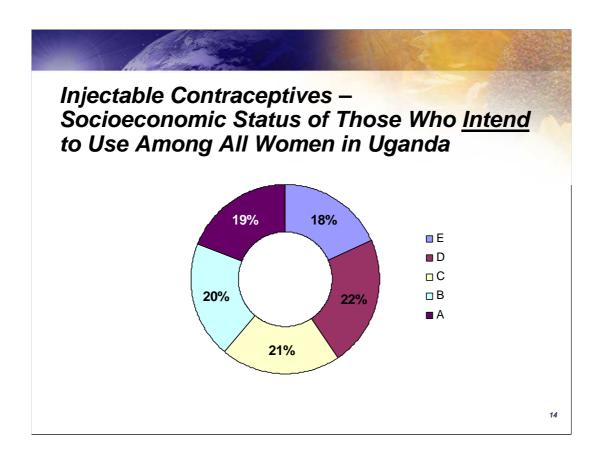
11

When we examined the socioeconomic quintiles, we realized that the biggest difference between households in the 'A' quintile and all of the other quintiles is roofing and flooring materials. Eighty-five percent of households in the 'A' quintile have cement flooring, while only 20% of households in the 'B' quintile have cement floors. The remainder of the quintiles have primarily earth or sand flooring.

Similarly, 95% of households in the 'A' quintile have iron sheeting as roofing material, as do a large proportion of households in the 'B' and 'C' quintiles. The data does not show such a prominent difference between the highest and lowest quintiles for any other assets surveyed. This fact can have major implications for social marketing programs seeking to target individuals in either the higher or lower socioeconomic quintiles.



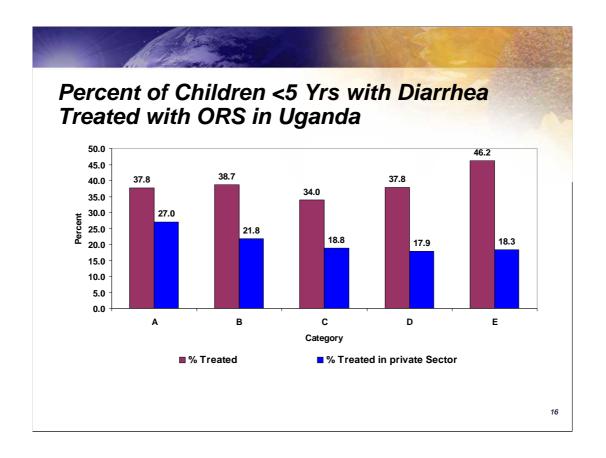




- A large portion of current oral and injectable contraceptive users are women in the 'A' socioeconomic quintile.
- Intent to use, however, does not seem to correspond to socioeconomic quintile.
- Could imply that access is a problem for women in quintiles 'B' through 'E', though non-use could be due to fear of side effects, provider influence or other factors.
- Implies further research may be necessary to investigate non-use among women in the lower quintiles.

15

The story that the oral and injectable contraceptive use data tells is that while almost the largest number of current users of both oral and injectable contraceptives are in the 'A' quintile, this same is not true when the UDHS asks women what method they <u>intend</u> to use. Another way to interpret these data: socioeconomic status may not influence an intent or a desire to use hormonal contraceptives, but other factors may hinder current use (price, access, providers, etc.). These data may only tell us one piece of the story – the AFFORD project is considering examining reasons for non-use among women not currently using through future qualitative research.



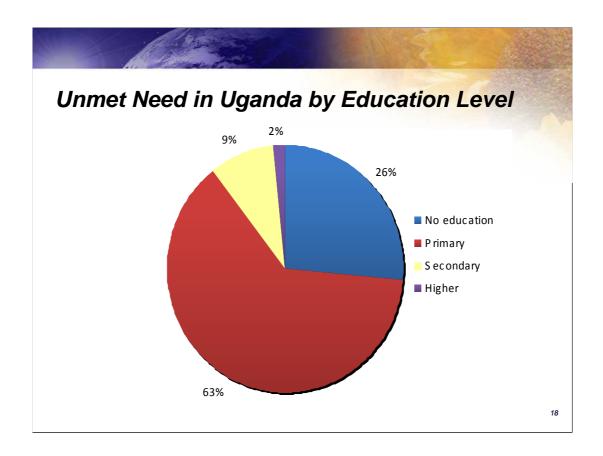
The AFFORD social marketing initiative, and its affiliate organization the Uganda Health Marketing Group, markets oral rehydration salts (ORS) and zinc supplements, in addition to contraceptives. To estimate the potential demand for ORS and zinc, we examined reported diarrhea incidence in the 2006 UDHS to get a sense of the overall target population for these products. Socially-marketed ORS and zinc will likely target children who seek treatment in the private, as opposed to public or free, sector.

Source: 2006 UDHS child dataset

- Treatment rates for diarrhea in children under 5 are higher for the 'E' quintile than the others; could be because of a higher incidence rate.
- Even though treatment rates higher for children in the lower quintiles, a larger percentage of children in the 'A' quintile get treated in the private sector.
- Could imply that most likely consumers for a social marketing ORS product – are in the highest socioeconomic quintiles.

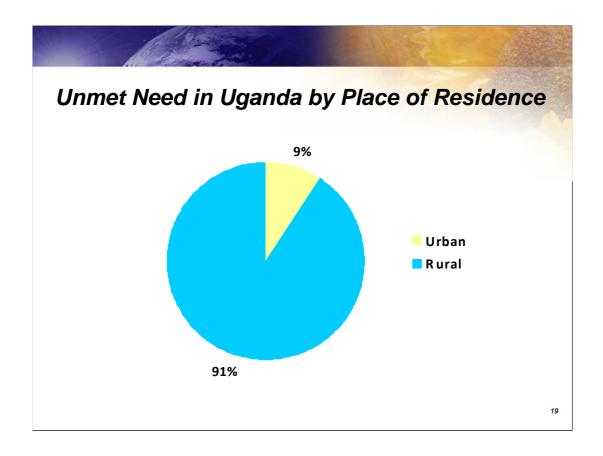
17

When we compared treatment rates of diarrhea in the private sector, the data show that there may be more potential consumers of ORS and zinc in the private sector among children in the 'A' and 'B' quintiles than in the lower socioeconomic quintiles. These data tell the story that we would expect to see in a well-segmented market: those that can afford to pay something for treatment seek treatment in the private sector, and those that cannot afford to pay as much seek treatment in the public sector. Confirming this segmentation can prove very useful to marketing strategies – especially given the lack of similar data from other sources.



Using statistical software to manipulate and analyze actual DHS datasets allows us to drill down even further than if we relied on the final DHS reports alone. The Uganda Health Marketing Group's marketing and communications teams were keen to learn more about the women reporting an unmet need for family planning in the 2006 UDHS. We developed mini-consumer profiles for women expressing unmet need. Among women stating that either their current or last pregnancy was either mistimed or unwanted and who are not currently using contraceptives (unmet need), almost a quarter have no education and 63% have a primary education as their highest level of education.

These statistics mirror the distribution of education among all women in Uganda, suggesting that possibly education does not correspond to having an unmet need for family planning.



Though approximately 17% of all women in Uganda live in urban areas, only 9% live in urban areas among women with an unmet need for family planning. This suggests that though the population of Uganda is largely rural, there is still a larger unmet need for family planning among rural women than among urban women.

- While current users of oral and injectable contraceptives are primarily in the higher ('B' and 'A') quintiles, unmet need for family planning is greatest among women:
 - With primary education as highest education level
 - Who live in rural areas
- While 85% of Ugandans live in rural areas and so this is not shocking information, these factors should be considered for marketing and promotional strategies.

20

The AFFORD social marketing initiative and Uganda Health Marketing Group wanted to use segmentation data to inform their communications and marketing strategies. These data regarding unmet need for family planning among potential consumers will be used to make decisions about appropriate marketing materials, media, etc. If most of the women with an unmet need for family planning live in rural areas and have no higher than a primary education, the project must design appropriate materials and promotions strategies if these women are to be targeted.

Quantitative data from analyses like market segmentation may not tell the whole story, but they provide clues for further analysis and investigation and sometimes indicate a revision in strategy.