Situational Analysis
CHILDHOOD OBESITY IN GHANA AND THE WAY FORWARD

Beatrice WIAFE ADDAI, MD.PhD

Consultant Breast Surgeon,
C.E.O., Peace and Love Hospitals,
President and Founder, Breast Care International,

President and Founder BCI America,
Fmr Member, Ethics committee - IARC,
Medical Advisory Board Member, Direct Relief, USA

Advisory Board Member Meals4NCDs,
Member, UICC,

Exec. Technical Committee Member, C/CAN, Kumasi
Exec. Comm. Member, IBCN, USA/France
Chairperson, Ghana NCD Alliance,
Race Chair, Susan G Komen Ghana Race for the cure,
Chair, BCI Ghana Walk for the Cure

Nov 4, 2022 - Kumasi

Situational Analysis

CHILD OBESITY IN GHANA AND THE WAY FORWARD

Ghana NCD Alliance

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BACKGROUND

The body mass index (BMI) is used to determine obesity and giving that overweight and obesity is a complex public health and economic issue, it is clear that besides individual behaviors, many factors including geographical location, age and gender influence childhood obesity. Other factors including the physical and organizational environment influence the propensity and proportion of obesity vulnerability in a given community.

In Ghana, the mean body mass index (BMI) of male children within the ages of 5 – 12 is growing at a 10 year compound annual growth rate of 0.67% from 2009 to 2019. Females on the other hand have remarkable higher mean BMI than boys and are growing at 0.63% at the same period.

METHODOLOGY

- For this study, childhood is defined by age and categorized as
  - infant 0 – 4
  - children 5-12
  - adolescent 13-18

- Secondary data is obtained from multiple sources including:
  - NCD Risk Factor Collaboration (NCD-RisC).
  - Sustainable Development Report
  - The World Bank

- The Data Insight Group performed initial and exploratory data analysis to help
  - Understand all the complex data
  - Actively performing gap analysis to identify the right and decisive type of data needed

CHALLENGES

X~Normal: Mean = 12.5, SD = 1.465

Source: The Data Insight Group analysis
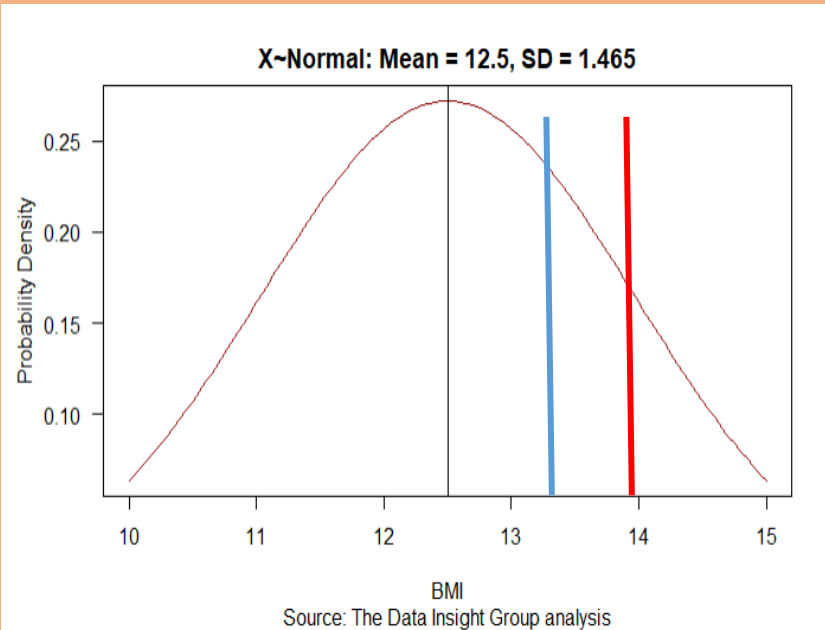
- Children whose BMI are between the blue and red line are overweight
- Children whose BMI lie on the right side of the red are considered obese
- So for children, depending on the gender, age, and BMI, that is how an individual is classified as overweight/obese
- This makes it difficult to just determine a child's obesity level by physical appearance

Year	Gender	Age	Weight (kg)	Height (m)	BMI	Mean BMI	Standard Deviation	
2022	Male	5	12	1.00	12.000	27.008	1.465	
2022	Male	5	15	0.50	60.000	27.008	1.465	
2022	Male	5	16	0.85	22.145	27.008	1.465	
2022	male	5	20	1.20	13.889	27.008	1.465	

Dummy data to help understand how BMI is derived

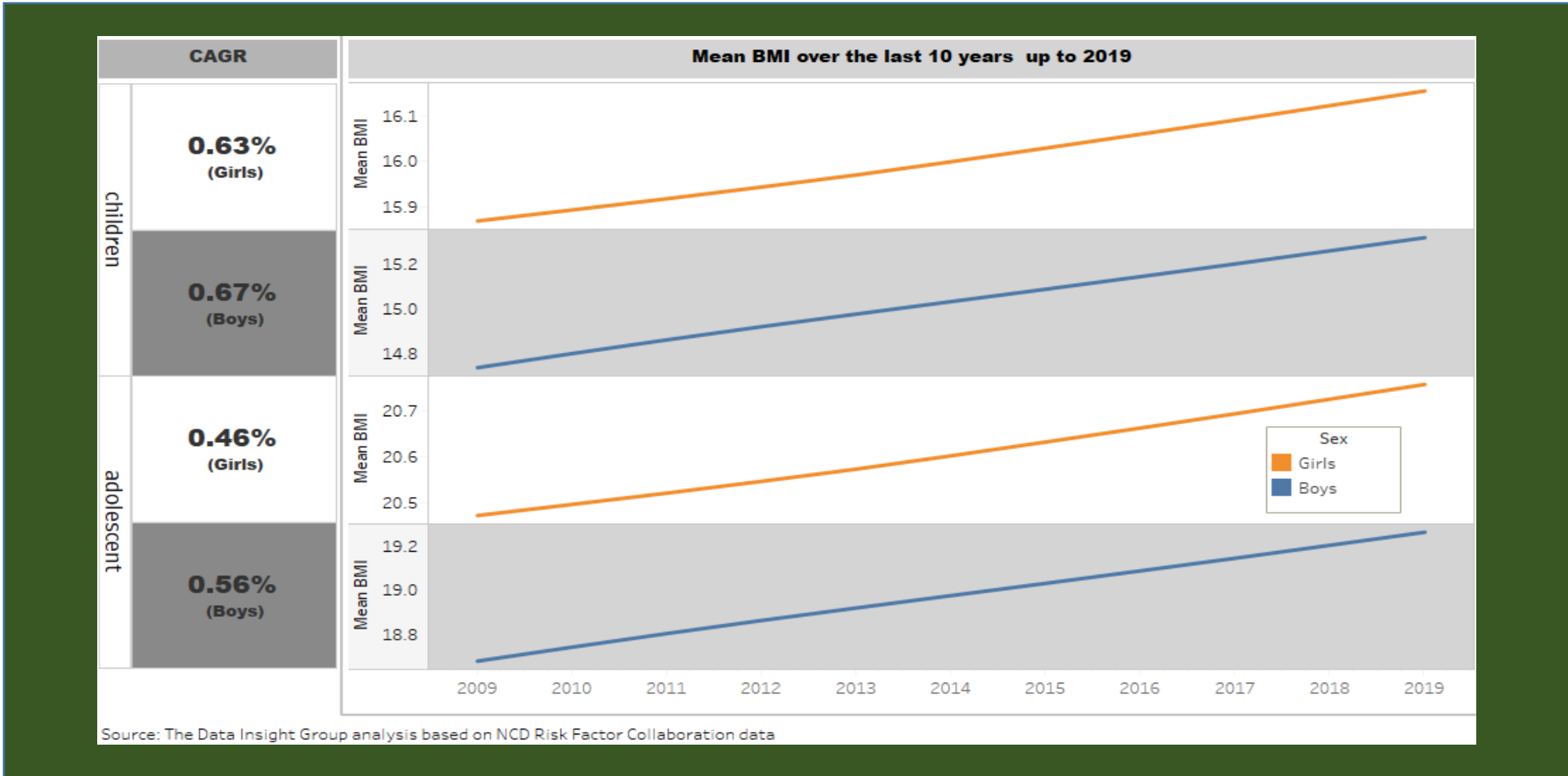# Clearly Girls are usually more obese than boys
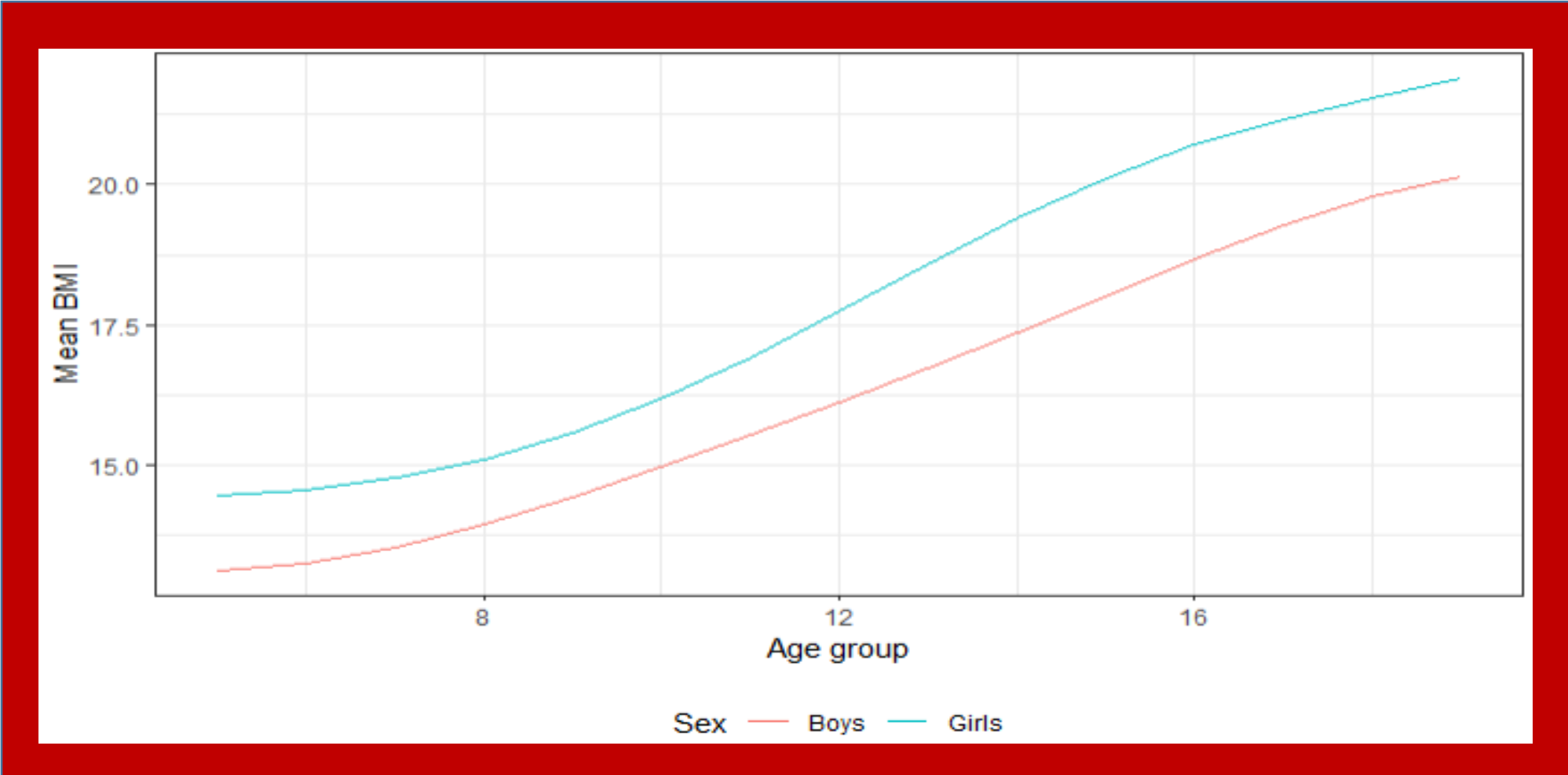
Childhood Obesity

- WHO defines overweight or obesity as the abnormal accumulation of fat that has the potential to impair health. Weight-for-height (BMI – Body mass index) is one of the common ways to classify overweight.

- A complex issue that affects the physical, social and emotional well-being of the individual and can sometimes lead to mental health issues like poor self esteem and depression.

- In order to combact this increasing global pandemic, the WHO developed an actionable plan that emphasizes the importance and urgency of advocating for more policies that reduces SUGAR, salt and saturated fat consumption.

- WHO estimates that since 1975, worldwide obesity has nearly tripled with a recorded 39 million children under 5 years in 2020 being classified as obese or overweight.

- Just like in any part of the world, obesity and overweight have become an increased public health concern and thus leaving no one behind in support of SDG3 means we need to work together to support each other. This should be a societal commitment and responsibility that we all share towards achieving a common goal.

Ghana

- **Approximately 56.1% of the Ghanaian population is estimated to be under 24 years of age.**

- **Ghana's 2021 population was 31.7 million. This represents a population growth of about 2.1%.**

- **Out of 191 countries in the world, the obesity rate in Ghana was ranked 136th with 10.9% of Ghana's population considered obese.**

- **A study by DIG (Data Insight Group) using data from the World Bank suggests that children less than 5 years old who are considered obese or overweight have increased from 0.8% in 1988 to 5.7% in 2008.**

- **Despite the fact that we need to push more resources towards NCDs control and management in order to meet our SDG goals (especially SDG3 – To ensure healthy lives and promote well-being for all at all ages), UNESCO estimated that our government's financial commitment to health and education has reduced by 34% in the last decade.**

Obesity of boys is increasing faster than girls

	CAGR	Mean BMI over the last 10 years up to 2019
children	0.63% (Girls)	
	0.67% (Boys)	
adolescent	0.46% (Girls)	
	0.56% (Boys)	

Sex: Girls, Boys

Source: The Data Insight Group analysis based on NCD Risk Factor Collaboration data
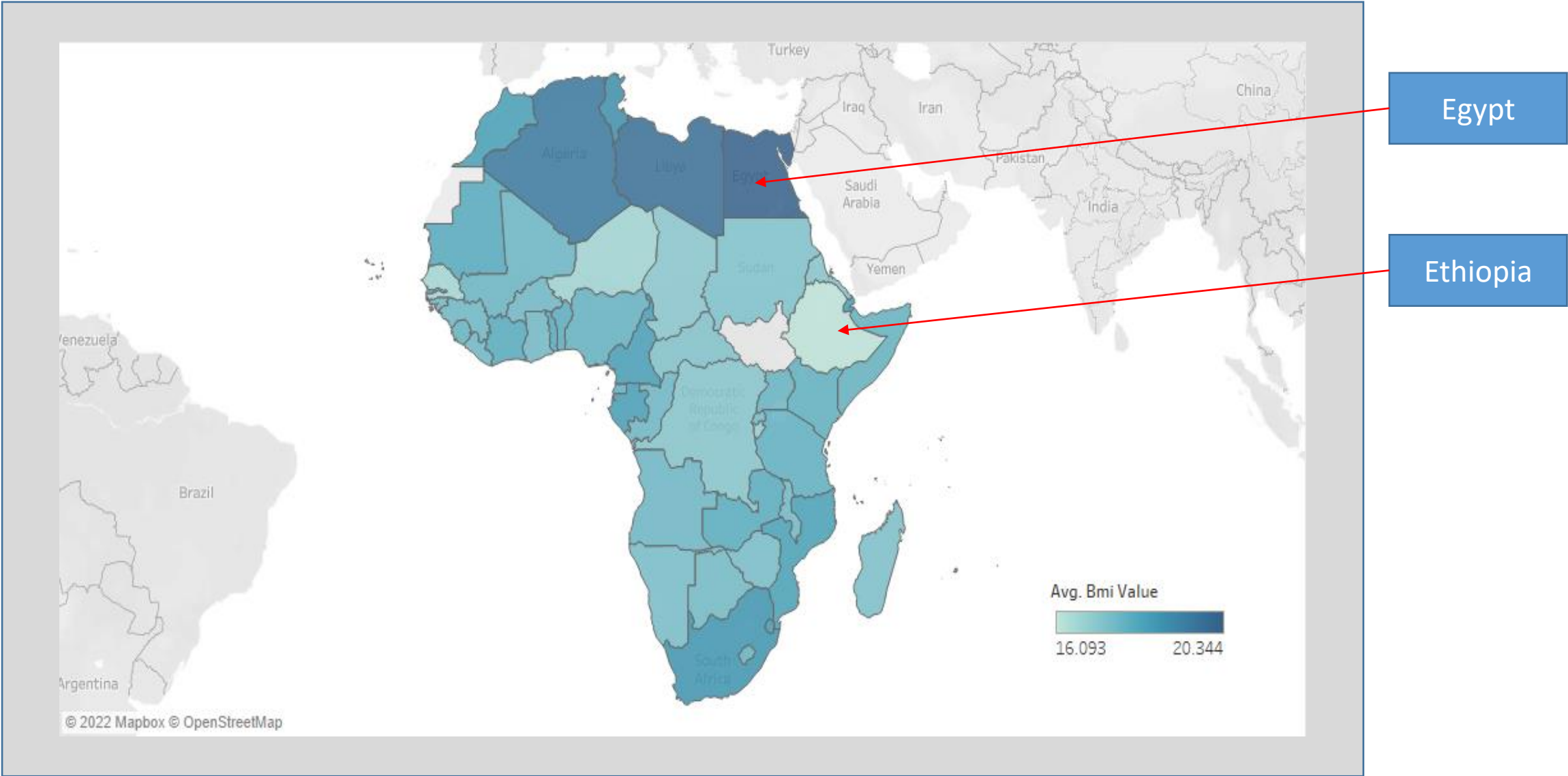
Compared to other African countries, Ghana's obesity level is very low among top 10 countries

Country	Mean BMI	Rankings	Mean BMI		Rankings	
			Boys	Girls	Boys	Girls
Egypt	20.62308	1	20.07448	21.17167	2	1
Libya	20.14463	2	20.18027	20.10899	1	3
Algeria	19.80844	3	19.33010	20.28678	3	2
Seychelles	19.44090	4	19.14308	19.73871	4	6
Tunisia	19.15804	5	19.05398	19.26210	6	7
Mauritius	18.99969	6	19.13188	18.86751	5	14
South Africa	18.99399	7	18.24202	19.74596	12	5
Sao Tome and Principe	18.90841	8	18.82161	18.99520	7	12
Swaziland	18.87704	9	17.88851	19.86556	24	4
Cameroon	18.76213	10	18.29305	19.23122	10	8
Ghana	17.84614	37	17.27990	18.41237	40	30

Source: The Data Insight Group analysis based on NCD Risk Factor Collaboration data

Overall, Ethiopia has the lowest obesity rate while Egypt has the highest in Africa

Takeaways

- Although Ghana's rate of obesity is lower compared to other African countries, there is still room for improvement

- Basically, overweight/obesity is determined by body mass index

- Weight and height remain the basic factors to determine the simple BMI globally.

- Generally, girls are more obese than boys.

- Mean weight of boys is however, increasing faster than girls

- It's critical to check what we feed our children with, esp. SSBs

RECOMMENDATIONS

Innovation pipeline and platform	Understand the target audience	Step up screening program
Stimulus control and small changes such as eating more vegetables can help. The importance of family meals goes beyond nutrition as families that eat together tend to encourage children to eat healthier foods like fruits, vegetables and whole grains to most likely maintain a healthy body weight.	Study the population in an in-depth analysis to help determine trends, behavior and needs and, device effective strategies to reach target audience. Generally, from cradle to grave or adulthood, children go through fast and significant transformation in terms of height and weight. A strategy designed purposefully to target children to identify and categorize audience by age, gender, location, interests, social status, challenges and other countless factors will help determine significant drivers of obesity.	Consider organizing screening programs regularly to examine and analyze target audience and, measure to determine changes. Plan and make decisions about the care of children who are overweight or have obesity. Investigate how related factors such as personal behaviors, age, parents' background, and geographical location are changing over time. At the end of it all, it will be easier to identify the opportunities and challenges in the face of new development through data collection.

RECOMMENDATIONS

Prioritize and work on data science initiative	Take advantage of analytical tools	Learn from other countries
Cannot repeat the importance of data to quantify decision making. Remaining strategic and competitive in today's health sector and policy making where the amount of data is growing and demand for actionable insight ramps up, the urgent need for a data science initiative is critical to leverage ML/AI to develop and deploy agile and intelligent tools. Adopting strategies to transform data into insights with no support for ML/AI initiatives can be too expensive to maintain and simply not too efficient.	In this new age of information and data, not recognizing that everything today is driven by big data, data science, coding, and ML/AI can be fatal for national development. Scaling of digital extension services with special attention to advanced analytics and focus on access to real-time information is paramount. This is why most non-performing sectors are hard hit for doing nothing about digital transformation and data-driven solutions.	There is a window of opportunity and a way forward for strategies to manage obesity in Ghana by replicating what could be the effective methods for obesity management from international approach.

The importance of DIG's situational analysis of childhood obesity in Ghana

- *Obesity and overweight has become a global pandemic, yet we do not have any policies and plans directly adressing childhood obesity in Ghana.*

- *Our lack of policies and urgency to adress this issue is due to the lack of data to advocate and push for an action plan and commitment from the government.*

- *There has been a lot of progress made globally so Ghana can learn from other successful childhood obesity management programs, including what our children eat and drink, and adapt them to our setting.*

- *Eg: Including sports in the curriculum of schools to promote a certain level of constant physical activity among children. Train and empower health and nutrition workers to regularly collect BMI data for research and monitioring purposes.*

- *Hopefully there will be some funding allocated to research into the current situation of childhood obesity in Ghana, so we can use the data to inform our next steps and effectively tackle this problem as soon as possible.*

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THANK YOU!!!