**بسم الله الرحمن الرحيم**

Your Excellencies, dear distinguished hosts, and dear honored guests, a warm welcome to you all today here at DDI’s Auditorium. I would like to start by thanking the Kuwait Foundation for the Advancement of Science for hosting this important event, which, as you will witness, has successfully enabled the realization of the first food-related success story powered by public and private sector collaboration.

KDD is a privately held Kuwaiti company with a legacy spanning more than 60 years, dedicated to providing *Pure Wholesome Goodness* to its customers. Our sustainability efforts are keenly focused on supporting *the planet, people, and nutrition, and we* are committed to building a vibrant, sustainable future for our future generations. KDD’s vision extends beyond catchy slogans; it's about taking tangible actions to effect real change.

We recognize a growing challenge: the increasing prevalence of metabolic diseases, including obesity, diabetes, heart disease, and other diet-related illnesses. Unhealthy foods are a significant risk factor: 74% of deaths are related to non-communicable diseases, and most of these deaths are diet related.[[1]](#footnote-1) This tsunami of preventable diseases impacts communities' health and strains healthcare systems and the economy.

Analysis of the global food system reveals that global food consumption is estimated at 9 trillion US dollars, while “externalities” are estimated to be more than double that, at 19.8 trillion US dollars.

These externalities, or hidden costs, amount to 11 trillion US dollars in costs to human life, 7 trillion US dollars in environmental costs, and 1 trillion US dollars in economic costs. This means that food is much more expensive than it seems; we just pay the price down the line.[[2]](#footnote-2)

On a positive note, a recent study from the Global Food System Economics Commission shows that the net benefits of achieving a food system transformation are worth 5 to 10 trillion US dollars a year.[[3]](#footnote-3) Here is clear and encouraging evidence that we can all prosper through innovation.

But… What is the urgency for such change?

In the Gulf Region, the pandemic of metabolic disease is acute and growing.[[4]](#footnote-4) The International Diabetes Federation reports high prevalence rates of more than 20% for diabetes and more than 15% for prediabetes. These are among the highest rates worldwide.[[5]](#footnote-5)

Consumption of added sugar is associated with the development and prevalence of fatty liver, dyslipidemia, insulin resistance, cardiovascular disease, and type 2 diabetes; many of these associations are independent of body weight gain or total energy intake. Substantial evidence supports the fact that reducing added sugar intake will lead to reducing the prevalence of these metabolic disorders.[[6]](#footnote-6)

The World Health Organization recommends reducing the intake of free sugars throughout life since there is no nutritional requirement for added sugar in the human diet. It also recommends reducing the intake of free sugars in adults and children to less than 10% of total energy intake—and optimally, less than 5%.[[7]](#footnote-7)

Promising research shows that the health and economic benefits of reducing added sugar are substantial, *saving millions of lives and hundreds of millions of dollars*.[[8]](#footnote-8)

Such public health initiatives are critically important as Kuwait’s statistics on metabolic disease are particularly alarming. Kuwaitis consume too much sugar.[[9]](#footnote-9) Sugar is addictive and is the root cause of leading metabolic illnesses. Sugar is subsidized in monthly 2 kg allotments to each Kuwaiti citizen, and research shows children are consuming sugar in prolific amounts.

Almost one in four Kuwaiti children consume sugar products more than once a day, with 42% consuming sweets, 43% consuming soft drinks, and 31% consuming cakes.[[10]](#footnote-10) The World Health Organization found that almost 80% of Kuwaiti adults were overweight, and nearly 40% had diabetes or prediabetes.[[11]](#footnote-11) The prevalence of metabolic syndrome in Kuwait is reported to be 30-40%.[[12]](#footnote-12)

According to medical research, at least one-third of Kuwaitis suffer from Nonalcoholic Fatty liver disease,[[13]](#footnote-13) while other research indicates that this preventable condition currently consumes 7.66 % of Kuwait National Health Care spending.[[14]](#footnote-14)

More than just our livers are being affected. Metabolic diseases encompass many disorders that affect the body's ability to regulate and utilize energy, negatively impacting multiple organs and systems.[[15]](#footnote-15)

According to Kuwait Diabetes Epidemiology Program, non-communicable diseases cost Kuwait 1.6 billion KD annually, equivalent to 3.9% of GDP in 2019. They were estimated to be the cause of 72% of all deaths in Kuwait.[[16]](#footnote-16)

A study prepared by Kuwait Ministry of Health and other leading global health authorities indicates that investing in proven and cost-effective policy and clinical interventions would save nearly 17,500 early deaths and avert 897 million KD in economic losses by 2034.[[17]](#footnote-17)

At KDD, we believe the pathway to a healthier future must include *food that nourishes our bodies at the cellular level, not just fills our stomachs.* This means moving away from *“farm to fork,”* thinking and reframing the journey more accurately as *“farm to cell.”* This is why, in 2020, we embarked on a transformative journey. We assembled a world-class independent scientific team led by Dr. Robert Lustig, Professor Emeritus of Pediatrics at University of California San Fransisco to create a science-based methodology for transforming the way we make food and beverages known as the "Metabolic Matrix."

The matrix embraces the fundamental concept that *metabolism is the north star of nutrition* and that the Brain-Gut-Liver Axis is central to supporting metabolic health.[[18]](#footnote-18) This evidence-based framework focuses on *"Supporting the Brain, Protecting the Liver, and Feeding the Gut," which are* critical pillars for achieving metabolic health. Applying this matrix involves a highly quantified and tiered approach to categorizing and designing products to maximize their metabolic impact.

The goal? Transforming food and beverage portfolios to champion positive nutrition and health. We share this methodology publicly through scientific and business forums, most recently in the World Economic Forum [[19]](#footnote-19) and have received global attention after being featured in October last year in a peer-reviewed methods paper: Frontiers in Nutrition, Nutrition & Food Science technology, Volume 10-2023 20.

Excess sugar consumption damages health and economies, and the socioeconomic burden of this mounting public health challenge is growing at alarming rates. Reducing or removing added sugar in the diet can be accomplished without reducing the occasional indulgence. One successful example is our new *no-added-sugar “Good For Me” chocolate ice cream.*

This product development is not just about removing sugar; it involves reengineering to maintain its deliciousness *while* delivering quantifiable health benefits, a path that KDD pioneers in building better products with science and innovation.

Given the popularity of our classic chocolate ice cream, we knew that developing a no-added-sugar alternative would require maintaining the same flavor and consumer appeal without compromise. We worked with our scientists to find a healthier alternative for sugar that will NOT harm our gut, re-engineered our traditional chocolate ice cream, and conducted two blind-tasting panels with representatives of Kuwaiti ministries and authorities, one in October 2022 and the second in February 2023.

(May I kindly ask all the participants in both tasting panels to stand, may I also kindly ask our 3 Kuwaiti researchers from DDI: Dr. Ghaneema Al Faleh, Mr. Yousef Mandani and Ms. Shadan Al Shimmiri to stand as well and may I ask you all as our audience today to give them a big applause).

This close partnership between the private and public sectors enabled us to agree on the best no-added sugar ice creams in three flavors: chocolate, vanilla, and strawberry.

KDD then approached Kuwait Foundation for the Advancement of Science to collaborate on funding this project, to enable Dasman Diabetes Institute to conduct a clinical trial on their Diabetic patients to evaluate our no-added-sugar chocolate ice cream and quantify its metabolic effects. A meaningful, exciting journey of mutual trust, shared health objectives, and scientifically proven facts and findings gather us here today. Dr. Ebaa Al Ozairi will elaborate more on the science behind this success story. This is only the beginning of our collective journey involving scientifically validated health and nutrition as we continue with clinical testing and more scientific innovation of products in KDD’s pipeline, with the support of KFAS and DDI.

But before I leave this stand today, I would like to remind you that no single company can solve this challenge alone, and we embrace the wisdom that “*All ships rise with the tide.”* Historically, KDD has positively and efficiently responded to calls from the Public Authority for Food and Nutrition to reduce sugar in various products. Today, the flood of added sugar in the food and beverage industry erodes our collective health, as more than 70% of processed food & beverages in the market have added sugar. *The* pandemic of diet-related disease calls for more than sugar reduction; we need a "food revolution.” This transformation requires action from multiple stakeholders:

* *Food companies* who embrace *science-backed approaches* like the Metabolic Matrix
* *Retailers* who champion *healthier products* for their customers
* *Regulatory authorities* who accelerate approval of *innovative ingredients*
* *Government & healthcare leaders* who establish *food policies* that *reduce healthcare costs*

By working together, we can create a healthier future for all, in Kuwait and beyond and be part of the solution, not part of the problem.

KDD is committed to this journey, and we invite you - with open arms - to join us.

Thank you.

1. <https://www.mdpi.com/2072-6643/15/8/1835> [↑](#footnote-ref-1)
2. United Nations Food Systems Summit 2021 Scientific Group, The True Cost and True Price of Food, [A paper from the Scientific Group of the UN Food Systems Summit June 2021](https://sc-fss2021.org/wp-content/uploads/2021/06/UNFSS_true_cost_of_food.pdf) [↑](#footnote-ref-2)
3. <https://foodsystemeconomics.org/> [↑](#footnote-ref-3)
4. [Obesity, diabetes and longevity in the Gulf: Is there a Gulf Metabolic Syndrome?](https://www.sciencedirect.com/science/article/pii/S1877593409000150) [↑](#footnote-ref-4)
5. # [Diabesity in the Arabian Gulf: Challenges and Opportunities](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6047189/#:~:text=The%20International%20Diabetes%20Federation%20(IDF,among%20the%20highest%20rates%20worldwide.)

   [↑](#footnote-ref-5)
6. [Sugar consumption, metabolic disease and obesity: The state of the controversy](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4822166/) [↑](#footnote-ref-6)
7. [Guideline: Sugars Intake for Adults and Children](https://www.ncbi.nlm.nih.gov/books/NBK285538/#:~:text=In%20both%20adults%20and%20children,intake%20(conditional%20recommendation8).) [↑](#footnote-ref-7)
8. [Health and economic benefits of reducing sugar intake in the USA, including effects via non-alcoholic fatty liver disease: a microsimulation model](https://bmjopen.bmj.com/content/bmjopen/7/8/e013543.full.pdf) & [Health Impact and Cost-Effectiveness of Achieving the National Salt and Sugar Reduction Initiative Voluntary Sugar Reduction Targets in the United States: A Microsimulation Study](https://pubmed.ncbi.nlm.nih.gov/34445886/) [↑](#footnote-ref-8)
9. <https://www.helgilibrary.com/indicators/sugar-consumption-per-capita/kuwait/> [↑](#footnote-ref-9)
10. [Consumption of sugar products and associated life- and school-satisfaction and self-esteem factors among schoolchildren in Kuwait](https://medicaljournalssweden.se/actaodontologica/article/view/38491/43658) [↑](#footnote-ref-10)
11. [Adult Diabetes and Prediabetes Prevalence in Kuwait: Data from the Cross-Sectional Kuwait Diabetes Epidemiology Program](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7694112/#:~:text=A%20recent%20World%20Health%20Organization,diabetes%20or%20prediabetes%20%5B4%5D.) [↑](#footnote-ref-11)
12. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3386600/> [↑](#footnote-ref-12)
13. [Clinical and economic burden of nonalcoholic steatohepatitis in Saudi Arabia, United Arab Emirates and Kuwait](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8382637/) [↑](#footnote-ref-13)
14. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8382637/> [↑](#footnote-ref-14)
15. [New Insights and Potential Therapeutic Interventions in Metabolic Diseases](https://www.mdpi.com/1422-0067/24/13/10672) [↑](#footnote-ref-15)
16. [Adult Diabetes and Prediabetes Prevalence in Kuwait: Data from the Cross-Sectional Kuwait Diabetes Epidemiology Program](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7694112/) [↑](#footnote-ref-16)
17. [The Case for Investment in Prevention and Control of Non-Communicable Diseases in Kuwait](https://applications.emro.who.int/docs/Kuwait-NCD-IC-v22-eng.pdf?ua=1&ua=1) [↑](#footnote-ref-17)
18. [Underlying Mechanisms behind the Brain–Gut–Liver Axis and Metabolic-Associated Fatty Liver Disease (MAFLD): An Update](https://www.mdpi.com/1422-0067/25/7/3694) [↑](#footnote-ref-18)
19. [The Case for Investment in Prevention and Control of Non-Communicable Diseases in Kuwait](https://applications.emro.who.int/docs/Kuwait-NCD-IC-v22-eng.pdf?ua=1&ua=1)

    20 <https://doi.org/10.3389/fnut.2023.1098453>) [↑](#footnote-ref-19)