

Ministry of Health and Prevention- United Arab Emirates National Action Plan in Nutrition

Introduction

The United Arab Emirates (UAE) Government, represented by Ministry of Health and Prevention (MOHAP) along with its strategic partners is strongly committed to promote health for all people and scale up nutrition initiatives. The umbrella of the UAE National Action Plan in Nutrition creates a framework for sharing experiences, promoting improved coordination, and building political momentum for scaled up national action.

The UAE National Action Plan in Nutrition for the period 2017-2021 aims to improve the nutritional status of all population residing in the UAE with a collective vision of a healthier and sustainable future; guided by the international, regional and national policies and strategies to promote health. This could be achieved through implementation of policies and programs to improve food security and nutrition within the frameworks agreed at the Second International Conference on Nutrition (ICN2), the Eastern Mediterranean Region (EMRO) Nutrition Strategy and the Non-Communicable diseases (NCD) Regional Framework for Action (RFA). The NCD-RFA continues to provide strategic direction for interventions and their indicators in order to assess the country's progress in the areas of focus, namely, reducing consumption of sugar, salt and fat, promoting breastfeeding and banning marketing of unhealthy foods. Implementation of the RFA, with emphasis on prevention of diet related risk factors, will also contribute to advancing the nine global NCD targets by 2025, including a 25% relative reduction in premature mortality from NCDs by 2025, and contribute to achieving the Sustainable Development Goals (SDGs) 2 and 3 by 2030.

The UN General Assembly proclaimed 2016–2025 as the UN Decade of Action on Nutrition. UAE, being a Member State, is committed to contribute to the FAO and WHO's global convention to set, track and achieve policy commitments to end all forms of malnutrition.

Advocating for the commitments by all stakeholders to implement specific interventions, policies, programs and investments for action on nutrition in all relevant sectors will be crucial in order to bring about a real and meaningful system change to end all forms of malnutrition. This Action Plan will provide a national framework for making, reporting and monitoring progress in this direction.

All stakeholders were involved and participated in the preparation of the UAE National Action Plan in Nutrition. They contributed to the development of recommended plan of action in reference to the following six pillars identified in the ICN2 Framework for Action:

- sustainable food systems for healthy diets;
- aligned health systems providing universal coverage of essential nutrition actions;
- social protection and nutrition education;
- trade and investment for improved nutrition;
- enabling food and breastfeeding environments; and
- Review, strengthen and promote nutrition governance and accountability.

Stakeholders are also involved in setting, tracking and achieving specific, measurable, achievable, relevant and time-bound (SMART) commitments. This will help all stakeholders to know what each action is intended for, how it is implemented and by whom which then will improve the tracking and accountability.

The UAE Nutrition Action Plan 2017-2021 is in line with the global and regional targets for improving maternal, infant and young child nutrition set in 2014 as well as other commitments and guiding strategies developed over the years in multiple nutrition domains, most notably:

- The Global Strategy on Diet, Physical activity and Health (DPAS) in 2004
- The Comprehensive Implementation Plan on Maternal, Infant and Young Child Nutrition (WHA65/6, 2012) and the subsequent resolutions on indicators

- The WHO & UNICEF Global Strategy for Infant and Young Child Feeding (WHA 54.2, 2002)
- The WHO Global Action Plan for the Prevention and Control of Non Communicable diseases (WHA66.10, 2013)
- The Global Strategy for Women's, Children's and Adolescents Health 2016-2030 (2010, updated in 2015)
- Report of Commission, Ending Childhood Obesity (WHO, 2016)
- The NCD Regional Framework for Action (NCD-RFA), 2012
- The Regional Nutrition Strategy and Action Plan, 2010

Nutrition situation in United Arab of Emirates

UAE is burdened with more than one form of malnutrition ranging from underweight to overweight and obesity, micro-nutrient deficiencies and premature onset of diet-related non-communicable diseases. These forms may co-exist within the same emirate, community, household or individual.

MICRONUTRIENT STATUS OF UAE POPULATION

Category	Rate	Reference year
Anemia among of reproductive age ^a Total population affected (000)	26%	2011
Vitamin A deficiency in children 6–59 months old (%) ^b	5	2013
Population classification of iodine nutrition(age group 9–13) ^c	Mild iodine deficiency	1994

Source: WHO 2015 Note: BMI = body mass index

معدل الانتشار	عوامل الإختطار
14.7%	ارتفاع ضغط الدم

18.6%	مرض السكرى
11.8%	ارتفاع نسبة كوليسترول الدم
38.4% (13-18 yrs.) 74% (above 18 yrs.)	زبادة الوزن
14% (13-18 yrs.) 37.2% (above 18 yrs.)	البدانة
72.5% (13-18 yrs.) 38.4% (above 18 yrs.)	قلة النشاط البدني
21.6%	التدخين
74.25%	قلة استهلاك الفرد اليومي للخضروات والفواكه

UAE has shown remarkable progress in the control of under-nutrition among infants and young children as well as vitamin A deficiency and iodine deficiency disorders, but anemia has been less responsive to prevention and control efforts. In addition, vitamin D deficiency (69% in pregnant women) ¹ is emerging as a public health concern. Overweight (74%) and obesity (37.2%) are still a major challenge among various age groups in the UAE². Some of the vital health statistics related to the prevalence of various nutrition and physical inactivity conditions among UAE population is summarized as follows^{3,4,5, and 6}:

- UAE to be declared iodine deficiency free
- Exclusive breastfeeding rate is at 34% which is still below the 50% global target
- Prevalence of zinc deficiency is 20.8%
- Prevalence of neural tube defects per 10000 live births 12%
- 1. Hussein et al., 2016. J Preg Child Health, 3: 5.
- 2. WHO Eastern Mediterranean Region; Framework for health information systems and core indicators for monitoring health situation and health system performance, 2015
- 3. Iodine Global Network; http://www.ign.org/middle-east-north-africa.htm, 2016.
- 4. http://www.ign.org/
- 5. http://www.ffinetwork.org/country_profiles/
- 6. Global Nutrition Report, 2014. www.globalnutritionreport

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Gaps and challenges:

• Insufficient resources (financial and human) allocation to support nutrition programs

Goal, objectives, results and recommendations of the national action plan in nutrition:

- **1. Goal:** The main goal of the national action plan in nutrition is to improve the nutrition status of the UAE population throughout their life cycle and reduce the morbidity and mortality from diet related risk factors of NCDs to achieve the global targets by 2025 and the corresponding SDG targets by 2030 through recommendations of the ICN2 Framework for Action.
- 2. Strategic objectives (outcomes): The strategic objectives of the UAE national action plan (2017-2021) are to:
 - 2.1 Improve maternal, infant and young child nutrition, through achieving the following targets:
 - 2.1.1 Achieve a 50% reduction of anemia in women of reproductive age;
 - 2.1.2 Increase the rate of exclusive breastfeeding in the first 6 months up to at least 50%;
 - 2.2 Reduce morbidity and mortality from NCDs by following healthy diet and physical activity, through achieving the following targets:
 - 2.2.1 10% relative reduction in prevalence of insufficient physical activity
 - 2.2.2 30% relative reduction in mean population intake of salt

- 2.2.3 To reduce the prevalence of obesity among children (5-17 years) by 2.4% (baseline 14.4% target 12%)
- **3. Results (outputs):** The expected results of each of the above strategic objectives are as follows:
 - 3.1. Supported a healthy start by promoting and protecting the nutritional well-being of women and children and ensure good nutrition throughout the life cycle for all age groups; with more focus on:
 - 1. Promoted optimal fetal nutrition, that includes: ensuring appropriate maternal nutrition from pre-conception; providing counseling on diet to pregnant women; and providing micronutrient supplementation, as required, to pregnant women.
 - 2. Protected, promoted and supported breastfeeding and timely, adequate and safe complementary feeding of infants and young children by implementing the Global Strategy on Infant and Young Child Feeding.
 - 3. Promoted and protected nutritional well-being of all age groups including adolescents, women, as well as groups with special needs such as disabled people, elderly and others.

Activities:

- 1. Fully adopt, enforce and monitor the *International Code of Marketing of Breast milk Substitutes* (the Code) and subsequent relevant World Health Assembly resolutions into effective national measures:
 - Implement measures to eliminate conflicts of interest, including in health professional and civil society groups
 - Conduct regular monitoring exercises on marketing practices
- 2. Institutionalize the Baby Friendly Hospital Initiative (BFHI), including assessment and reaccreditation of national accreditation, licensing, financial standards or other acceptable health-care system structures.
- 3. Develop and align maternity protection as a minimum with the International Labor Organization Maternity Protection Convention, 2000 (No. 193).
- 4. Support optimal and appropriate complementary feeding practices of locally available and acceptable foods.
- 5. Implement measures to prohibit inappropriate promotion of complementary feeding.
- 6. Use social marketing approaches to promote breastfeeding as an intervention to prevent childhood under nutrition, reduce the risk of childhood obesity and prevent diabetes.

3.2. Strengthened and enforce legal frameworks that protect, promote and support healthy food:

1. Measures implemented to protect dietary guidance and food policy from undue commercial and other vested interests.

- 2. Full incorporation of the following into effective national measures:
 - The WHO Set of Recommendations on the Marketing of Foods and Non-alcoholic beverages to Children
 - Standards for foods and drinks sold in schools
 - Health and nutrition claims based on Codex Alimentarius guidelines
 - Nutrition facts labeling (including front of pack labeling) according to the revised GCC and UAE nutrition labeling standards
 - Appropriate evidence-informed food fortification standards
 - Whole-of-government approaches to salt reduction
 - Whole-of-government approaches to reduce saturated and *trans* fats
 - Whole-of-government approaches to reduce sugar
 - Removing of Government subsidy on unhealthy food
 - Added taxes to unhealthy food such as sweetened soft drinks and beverages; salty, palm oil.
- 3. Reformulating of food products to improve nutrient composition through:
 - Reduction of *trans* fats content to maximum 2 g of the total fat in vegetable oils, and soft spreadable margarine, and the *trans* fats content for other foods to less than 5% of the total fat content including ingredients sold to restaurants.
 - Reduction of salt content in bread to less than 0.5 %
- 4. Measures implemented to regulated food fortification by iron, folic acid and vitamin D.

Indicators:

- 1. Existence
- 2. Governments subsidies removed on unhealthy foods (sugar, salt, fat)
- 3. Taxes on sugar-sweetened beverages as well as palm and coconut oil adopted and implemented
- 4. No. of regulatory measures developed and adopted on nutrition labeling, including front-of-pack labeling on pre-packaged food and beverages.
- 5. No. of communication campaigns conducted on healthy diets and eating
- 6. Percent improvement of daily consumption of fruits and vegetables by children
- 7. Developed legislations on fortification of staple foods (wheat flour, oil, cereals) with iron, folic acid, vitamin D
- 8. No. of published evidence on consumption patterns in UAE population

3.3. Increased consumption of healthy foods and physical activity levels in schools:

Activities:

- 1. School policy on healthy diet and physical activity established and implemented
- 2. Availability of healthy foods in the school environment regulated
- 3. Fruits and vegetables made available to school children
- 4. Nutrition education incorporated in the school curriculum and implementation enforced
- 5. Physical activity promotion and quality physical education incorporated in the school curriculum

Indicators

- a. No. of schools developed and implemented policy on healthy diet and physical activity (*details on physical activity included in the national action plan on physical activity*)
- b. No. of schools regulated availability of food in the school environment
- c. No. of schools made available of fruits and vegetables to students
- d. Nutrition education incorporated in the school curriculum and implemented
- e. Incorporated physical activity promotion and quality physical education in the school curriculum.
- **f.** No. of published evidence on health and nutrition status of school children

3.4. Improved implementation and coordination of nutrition and NCD prevention policies:

Activities:

- 1. Nutrition and NCD prevention plan developed and implemented targeting policy makers of different sectors
- 2. Roles and responsibilities in nutrition and NCD prevention plan defined
- 3. Implementation of policies is effectively enforced
- 4. Legislative capacity strengthened for implementation of regulatory policies

Indicators:

- 1. Developed a National Action Plan on Nutrition
- 2. Defined roles and responsibilities of key stakeholders / partners
- 3. Endorsed and budgeted the National Action Plan in Nutrition by MOHAP and strategic partners
- 4. No. of training conducted on regulatory policies for MOHAP and strategic partners

3.5. Improved monitoring, evaluating and conducting research in nutrition and NCD-diet related risk factors:

Activities:

- 1. Developed national nutrition surveillance system to monitor indicators of interventions and assess the impact of action plan.
- 2. Assessed nutritional status, food availability and consumption as well as physical activity patterns of the population.
- 3. Conduct a stepwise survey on NCD risk factors.

Indicators:

- 1. Established nutrition surveillance system, with defined indicators
- 2. Established surveillance and monitoring system on obesity among school children
- 3. No. of nutrition surveillance reports published for the key indicators
- 4. Conducted a national assessment on food consumption patterns and physical activity (small scale)
- 5. Food consumption pattern indicators included in the national stepwise survey (salt, sugar and saturated and *trans* fats intakes)
- 4. **Recommendations:** Following recommendations are made to support an effective implementation of the national action plan:
- 1. Endorse the National Action Plan in Nutrition by his Excellency Minister of Health and Prevention and to disseminate it to relevant Government institutions and stakeholders.
- 2. Establish a national Task Force on Nutrition.
- 3. Adapt the WHO Regional Policy statements and action plans on salt, sugar and fat reduction and food fortification.
- 4. Ministry of Health and Prevention to endorse the code of marketing for breast milk substitutes and WHO to support its implementation.
- 5. Organize bi-annual meetings for all stakeholders.
- 6. Support research institutions and academia to scale up nutrition research with more focus on monitoring the key outcome indicators.

- 7. Separate committee meeting to be organized for setting up national surveillance system and the data collection including representatives of research ethics committees and higher management of the Ministry of Health and Prevention, Dubai Health Authority and Health Authority of Abu Dhabi.
- 8. Ministry of Health and Prevention to support and be part of the conduct of a baseline national nutrition survey by the academia and expedite the research ethics approval
- 9. Ministry of Health and Prevention as well as Municipalities and Chambers of Commerce of all Emirates to meet and adapt the regional nutrients profiles system to the national situation.
- 10. No sponsoring from any companies that are not abiding by the code of marketing of breast-milk substitutes and on the marketing of unhealthy foods for national public health/nutritional events.
- 11. Conduct national landscape analysis for nutrition and assess the capacities of government institutions and come up with recommendations to identify training needs for capacity building with the support of WHO.

Strategic Direction: Supported a healthy start by promoting and protecting the nutritional well-being of women and children and ensure good nutrition throughout the life cycle for all age groups

Indicator (outputs)	Current	Proposed Activities	Target	2017	2018	2019	2020	2021	Responsi ble
1- International Code of Marketing of Breast-milk Substitutes endorsed and adopted by MOHAP	Draft Code is not endorsed	Finalize the draft and get MOHAP endorsement	Code endorsed and implemented	Waiting Endorseme nt of the Code from Ministerial Council	Awareness for the code	Ongoing	Ongoing	Ongoing	МОНАР
2- Code monitoring mechanisms in place and functioning	No monitoring system	Establish a committee for monitoring: National Breast Feeding Committee, and sub-Committees for each Emirate Organize Code monitoring workshop in collaboration with WHO Establish a robust, unified monitoring system across the UAE Identify monitoring teams for periodic monitoring in each emirate	100% Code monitoring system established in the UAE At least 80% compliance to the Code	Review and alignment with ILO Convention 183	National workshop conducted, monitoring system established, and personnel trained	Monitoring initiated	Ongoing	Ongoing	Key partners: Codex Alimentati us Municipal ities of all Emirates HAAD DHA Media
3- Percentage of hospitals assessed within the past two years and meeting BFHI standards	16 governmental hospitals (65%), 11 Governmental PHCs (10%)	To issue a Ministerial Decree advising all Hospitals and PHCs to be BFHI in the next two years To increase BFHI in all public and private hospitals in UAE: 2 hospitals/y ear, 10% PHC/year	100% of Government hospitals, 50% of government PHCs,10% private hospitals till end of 2021	70% of government hospitals and 10% of government PHCs	80% of government hospitals and additional 10% of government PHCs	90% of government hospitals and additional 10% of government PHCs, 5% private hospitals	100% of governme nt hospitals and additional 10% of governme nt PHCs, additional 5% private hospitals	of governme nt hospitals 50% of governme nt PHCs,10 % private hospitals covered	Ministry of Economy Health Policy Departme nt
4- Maternity protection measures enacted and aligned with ILO Convention 183	2 months maternity leave, 6 months 2 hours nursing time allowance. No policy for breastfeeding rooms and nursery	Review the Convention recommendations and revise the current policies in line with the UAE national practices a) Increase maternity leave to minimum 6 months maternity leave, and 2 hours nursing allowance in another 6 months. b) Implement the option of part time or work from home.	Implementation and alignment with the Maternity Protection Convention in line with the national practices Breastfeeding rooms and nurseries established in at least 80% of the identified locations as per the new policy	Review and alignment with ILO Convention 183	Implementation	on initiation and			

		Establish a policy for breastfeeding rooms and nursery in different community settings (work places, academic institutions etc.)						
5- Developed a legislation on fortification of staple foods (wheat flour, oil, cereals) by iron, folic acids, vitamin D	Voluntary fortification of wheat flour or foods	Enforce the WHO recommendation of fortification by a mandatory legislation Increase public awareness on the importance of foods fortified with essential nutrients	Mandatory wheat flour fortification At least 50% of the food manufacturers using staple foods as the ingredients in their products adopted fortification	Implementation	n initiation and	d ongoing		
6- Organized trainings / workshops for health workers on best practices in breast feeding and complementary feeding	Antenatal breastfeeding educational for nurses ,workshop on breastfeeding guidelines at level 1,20 hours training on BF management, 90 hours lactation management course	Organize lactation management course every two years within MOHAP for the health care workers (doctors, nurses, dieticians) in hospitals and PHCs	At least 50% of the health care team should be trained for lactation consultation within 5 years	10%	10%	10%	10%	10%
7- No. of campaigns on awareness of breast feeding and complementary feeding conducted	International and National BF Week Campaign	Organize national campaigns on breastfeeding twice every year by all Emirates	75% of the pregnant and lactating mothers are fully aware the importance of the breastfeeding.	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
8- Developed protocols and nutrition counseling sessions conducted for all groups including adolescents, elderly, women, as well as	Nutritional referrals are voluntary	Develop protocols on nutrition counseling for different stages in the life cycle and make them available to all dieticians in the hospitals and PHCs Nutrition counseling to be made a	Protocol(s) on nutrition for each stage of life cycle developed and shared with all the dieticians in the hospitals and PHCs	Protocols developed and distributed to hospitals and PHCs Initiated	Trainings/ workshops of dieticians on protocols Implementat			ops
groups with special needs such as disabled people, elderly and others		part of patient visit a) Levy a target for dictitians' referrals by the physicians b) Conduct trainings for physicians for recognizing the nature of patients requiring dictitians' referrals		Implementation Physicians' trainings		vsicians' trainir	ngs/workshops	
		c) Nutrition education and health promotion materials to be disseminated by the nurses/dieticians on patient's		Implementation	n ongoing			

		visit			. 1
9-Situational analysis and monitoring of national recommendations for maternal, newborn, infant nutrition	Not available	Conduct analysis on the data available in the medical records (growth charts, and other reports) Work with research team and conduct a national survey for all relevant key health and nutrition indicators	Increase with MCH in exclusive breastfeeding rate to at least 50% Reduction in the prevalence of malnutrition rates	Ongoing efforts Ongoing efforts	Target achieved Target achieved
			Reduction in IMR and Under 5 mortality rates	Ongoing efforts	Target achieved
			Reduction in the prevalence of low birth weight (LBW babies) Reduction in maternal mortality and gestational diabetes (GD) rates	Ongoing efforts	Target achieved
10- Improve food and nutrition security	Insufficient data available	Prepare a list of foods to include in the Food composition Table for UAE	• UAE food composition table developed	Ongoing efforts	Target achieved
		Develop a Food composition table for UAE		Ongoing efforts	Target achieved

consumption survey -Develop FBDGs for UAE di	National food consumption survey conducted National food based dietary guidelines (FBDGs) developed	Ongoing efforts	Target achieved		
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Strategic Direction: Strengthened and enforce legal frameworks that protect, promote and support healthy food

Indicator (outputs)	Current	Proposed Activities	Target	2017	2018	2019	2020	202	Resp onsi ble
1- No. of legislations adopted and implemented to restrict the marketing of unhealthy foods and non-alcoholic beverages to children	No legislation	1. Follow up the recommendations of MOHAP Task force on Promoting Healthy Diets in UAE for reduction of sugar in the soft drinks and sweetened beverages 2. Develop a national policy on marketing and advertising of foods and non-alcoholic beverages to children a) Restricting hours of advertising of unhealthy foods to children through: • Media and advertisement • Free promotions • Toys sold with unhealthy foods • Brochures delivered to doors • Catering businesses for activities and celebrations for children • Ban on unhealthy food and beverage companies from sponsoring sports events b) Ban the food products and beverages sold in school vending machines c) Conduct educational campaigns on portion sizes and food labeling targeting children. d) Nutrition education in schools as part of the academic curriculum 2. Define marketing directed to children and define legal age		Endorsement of policy and implementation initiated Definitions endorsed	Implementation ongoing	Impleme ongoing and Eva	, Monite		MO HAP in colla borat ion with Key partn ers
adopted and implemented to reduce trans-fat intake	GCC legislation on trans-fat approved. MOHAP Task Force on Reduction of trans fats in the	Enforcement of the GSO standard on <i>trans</i> fats Negotiate with the private sector on voluntary reduction and reformulations for reduction of <i>trans</i> fats content to maximum 2% of the total fat in vegetable oils, and soft spreadable margarine, and the <i>trans</i> fats content for other foods to less than 5% of the total fat content including ingredients sold to restaurant	Legislation on reduction of trans fats adopted and implemented WHO regional policy statement on action plans salt,	Legislation on reduction of trans fats enforced	Legislation of fats adopted, monitored an	impleme	ented,	ans	

	UAE established	 b) Replace <i>trans</i> fats with unsaturated fats c) Public awareness campaigns on the harmful effects of the consumption of <i>trans</i> fats d) Control <i>trans</i> fats consumption in prisons, juvenile centers, police and military schools, army forces, geriatric home cares and their canteens through implementation of the Regional nutrients profiling system. 	sugar and fat reduction adapted			
to reduce saturated fat	MOHAP Task Force on Reduction of Saturated fats in the UAE established	b) Encourage low-fat dairy products and no replacement by palm oil	Legislation on reduction of saturated fat adopted and implemented WHO regional policy statement on action plans salt, sugar and fat reduction adapted		Implementation ongoing	GCC standards and specifications on saturated fats; strategies to reduce saturated fats adopted, implemented, monitored and evaluated
4- No. of legislation adopted and implemented to reduce salt intake in bread, pickles, cheeses, fast food, snacks, and other processed foods	Force on Reduction of Salt	industries, catering businesses including restaurants cafes, kiosks, etc. b) 30 % reduction in salt intake in the next 2 years c) Market control and monitoring from Municipalities and Health Authorities d) Implementation and awareness campaign on nutrition labeling		Policy on reduction of salt developed and public awareness campaigns initiated 30 % reduction in salt intake in the next 2 years		ored and
		 e) Controlling salt consumption in prisons, juvenile centers, police and military schools, army forces, geriatric home cares and their canteens. f) Monitor & evaluate the impact of salt reduction program 		Implementation of and Evaluation	of strategies ong	going, Monitoring
5- Governments subsidies removed on unhealthy diet		Limit the subsidies on unhealthy foods and implement subsidies on healthy foods mainly, fruits and vegetables.	Subsidy withdrawn from unhealthy foods	Subsidy enforced on Implementat healthy foods		ation ongoing
6- Tax on sugar-sweetened beverages adopted and	MOHAP Task force on	Adopt the recommendations of the MOHAP Task Force on the reduction of sugar in sugar sweetened beverages	MOHAP Task force on Promoting	Initiation of tasks mentioned and	Implementa recommend	

		Promoting Healthy Diets in UAE prepared the recommendations for the reduction of sugar in the sugar sweetened beverages (in process of submission to the Higher Authorities for endorsement)	 a) Regulate the maximum limits for sugar sweetened beverages b) Taxation of sugar sweetened beverage c) Reduce portion sizes and increase of prices for different sizes e) Control sugar consumption in prisons, juvenile centers, police and military schools, army forces, geriatric home cares and their canteens f) Submit the proposal of the UAE MOHAP Task force which recommends a maximum limit of 8g/100ml corresponding to 2 teaspoons of sugar in sweetened beverages to ESMA and the GSO for evaluation and approval g) Availability of free water in all schools 	Healthy Diets in UAE recommendations for the reduction of sugar in the sugar sweetened beverages endorsed and adopted 2. WHO regional policy statement on action plans salt, sugar and fat reduction adapted	strategies ongoing, Monitoring and Evaluation	
7-	measures developed and adopted on nutrition	GCC legislation on revised nutritional labeling endorsed	Apply the provisions of the GSO standards on nutrition labeling	GSO standards on nutritional labeling enforced and adopted	Implementation ongoing, monitoring and evaluation	
8-	No. of communication campaigns conducted on healthy diets		Conduct public awareness campaigns on healthy diets in hospitals, malls, parks, gatherings by the private and public sector Increase the number of campaigns every year	Public awareness campaigns conducted on periodic basis	ublic awareness campaigns and Evaluation	

Indicator (outputs)	Current	Activities	Target	2017	2018	2019	2020	2021	Responsible
school policy on healthy diet and physical	of government schools with	 Review and unify current guidelines and policy among all stakeholders. Expand healthy school canteen program in all Emirates Disseminate the nursing guidelines developed by MOHAP on health education to all schools Implemented sustainable health promotion programs (ex. Healthy school, اصحتى في غذائي) in collaboration with the different stakeholders 	100% of government schools	Regular inspections done by MOE inspectors (food providers approved by MOE under specified criteria)	Ongoing				MOE and educational authorities of each emirate: • ADEC • MOE-HEKMA • Sharjah Education Council • KHDA Health Authorities: • MOHAP • HAAD
2. No. of schools developed and implemented regulatory measures for marketing of unhealthy foods to children and adolescents		Developing teams from different parties to monitor the implementation in schools regularly Conduct trainings/workshops for school staff, parents, students, stakeholders and monitor compliance of the policy for marketing of unhealthy foods to children Healthy food options such as fruits and vegetables should be made available in schools for the children			Ongoing				SEHA DHA Sharjah Health Authority Municipalities Dubai Municipality ADFCA SEHA- Abu Dhabi General Authority of Youth and Sports Welfare Dubai Sports Council
3. No. of schools set a class on		Include a topic of nutrition in the primary and secondary curricula			Ongoing				Abu Dhabi Sports Council Sharjah Sports Council

nutrition education (weekly)	Implement nutrition health education activities out of school classes (Special classes)				
4. No. of schools set a class on	Make 5 hours of mandatory physical activity per week in the curriculum				
physical	Incorporate a topic on physical activity in the curriculum.			Ongoing	
activity (weekly)	Enforce schools to run the health clubs for students outside the curriculum as an after school club				
	Assess the baseline physical activity levels of the school children				

Strategic Direction: Improved implementation and coordination of nutrition and NCD prevention policies

Indicator (outputs)	Current	Activities	Target	2017	2018	2019	2020 2021	Responsible
1- Roles and responsibilities of stakeholders defined	Not available	1 11	Established the roles and responsibilities of the stakeholders	Prepared the draft				MOHAP in collaboration with stake holders such as Universities, Health Authorities, Municipalities, Ministry of Education, Education Authorities, Food Control Authorities, Non-governmental
2- Establish national coordination committees in each Emirate and for each	Not available	MOHAP to share the UAE-NPA	for coordination of stakeholders	National workshop and formulation of committees			tion of stake- aborative activiti	organizations es (NGOs)

Monitoring system lestablished	Monitoring ongoing	
Evaluation system lestablished	Evaluation ongoing	
	Monitoring system established Evaluation system	Monitoring system established Evaluation system Evaluation ongoing

	reports			
	1.Train the healthcare delivery personnel (dieticians) in the hospitals and PHCs on standard nutrition care			
	2. Monitor evaluates the compliance to the protocols.			

Strategic Direction: Improved monitoring, evaluating and conducting research into nutrition and NCD- diet related risk factors

Indicator (Outputs)	Current	Activities	Target	2017	201 8	2019 2	2020 2021	Responsible
Establish a baseline data for the UAE population through conducting a national nutrition survey (NNS) for identifying: food consumption patterns,	data available	Activate the protocol of UAE National Nutrition Survey of 2009- Activate the Task Force		Target Achieved				MOH in collaboration with stake
sugar, salt and fats in particular; malnutrition (macro and micro- nutrients including obesity, stunting, anemia, low birth weight, and vitamin D)		Revisit and finalize the data collection tools Develop food composition tables Develop food atlas suitable for NNS	Conduct the UAE National Nutrition Survey		imple ion	ted and	Data analy land report t completed	CITATELL LICE

Establish a UAE nutrition surveillance system for monitoring the outcomes of national nutrition survey	No system available	Identify surveillance system parameters, frequencies, selection of data sources Staff training for monitoring and data entry	that can be used as a nutrition	Initiate the surveillanc e system		Authorities, Municipalities, Ministry of Education, Education Authorities, Food Control Authorities
Develop targeted research on priority research areas in the UAE	Negligible data available	Develop research and evaluation studies on priority areas: added sugar, salt, saturated and trans fats Childhood obesity Maternal and child health In context to: Nutrition knowledge, attitudes, practices Food consumption patterns. Physical activity patterns Nutrition assessment through anthropometry, biomarkers Food composition tables Menu labeling in restaurants Nutrient profiling Monitoring and evaluation of the compliance to UAE National Policy on Promoting Healthy Diet Seek research funds and collaborators Publish the data in national and international reports		Initiate	Ongoing	

Appendix

Summary of stakeholder analysis

GOVERNMENT GROUP

Stakeholder and basic characteristics	Institutional interests (mission)	How are they affected by the problem?	Capacity in terms of human, financial and technical resources (low, medium, high)	Political influence (low, medium, high)	change	Possible actions (of government) to address stakeholder's interest
Ministry of Health and Promotion (MOHAP)	Prepare policies, strategies and plans, deliver health care services and health education and health promotion: MOHAP at Federal level and others at the level of each Emirate	Deal with high burden of diseases	Medium-High		01	Guidance and leadership for other sectors Health Promotion Standardize guidelines and protocols for clinical nutrition Review and amend food content standards and nutritional labeling Establish and enforce policies related to reduction of salt, sugar as well as trans fats and saturated fats in packaged products and those sold in public facilities
 Sharjah Education Council Abu Dhabi Education 	schools, to prepare the students for higher education, skilled employments and entrepreneurships for sustainable development of the society	Threat of low literacy, high school drop-outs and burden of unemployment	Medium-High		Strong physical education system Healthy school canteen guidelines Nutrition and physical education modules as part of the curriculum	Physical activity sessions Healthy institutional environment Green gardens Nutrition and physical education in curriculum Healthy school canteens and meals Health Promotion Nutrition data base and research Training for staff
Education and Scientific Research	Achieve excellence in higher education and scientific research output, and contribute to the knowledge-based society and sustainable development of UAE by providing educational programs and services in accordance with international standards of quality and excellence, and promote the Ministry's role in coordinating between institutions of higher education	Low higher education literacy, high rate of unemployment				
Sharjah Municipality		High public pressure and complaints from public related to food	Medium-High		 Sound horticulture system Revised nutritional labeling policy as per GCC 	Enforce and monitor the revised standards and labeling on products Provide licensing to restaurants and coffee

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Abu Dhabi Food Control Authority Ajman Municipality	promoting sound agricultural and food practices through cohesive and effective policies and regulations, quality standards, research and awareness	quality			 Regular inspect of food in restaurants, and other 	shops • Develop measures and impose penalties on non-compliance • Introduce nutritional labeling on menus prepared and served in restaurants and other catering units	
Emirates Authority for Standardization and Metrology	Formulate and issue standards for commodities of UAE; follow up, monitor and advice on the application of standards; provide consumer protection, environment and national market for strengthening the national economy	Low awareness among the manufacturers, traders and consumers about standards and their own rights and responsibilities	Medium-High	High	Revised nutritional labeling policy as per GCC standards and meteorology	Enforce and monitor the revised standards and labeling on food products Coordinate with municipalities to monitor for compliance	
Ministry of Culture, Youth and Community Development	Elevate cultural and societal awareness, enhance the national identity and revive local heritage; through effective coordination with partners and excellence in both service and human resources, utilizing innovative and modern methods	Insufficient community engagement and awareness	Medium-High	High	Excellent infra-structure for sports activities and social events	 Increase the frequency and variety of social and sports activities to engage more youth on regular basis Instill a sense of belongingness and commitment among the youth to volunteer 	
General Authority of Youth & Sport Welfare and other institutions and centers of all emirates under it	Supreme body responsible for the welfare of youth and youth activities in the UAE. It is also the administrative body that oversees all issues relating to the youth and sports	Large proportion of youth indulge in sedentary pursuits and physical inactivity	Medium-High	High		for such activities	
Ministry of Climate Change and Environment	Enhance domestic efforts across all fields relating to its functions, so as to achieve sustainable development and to maintain the UAE's position as a regional and international leader of action. The Ministry will continue to support partnerships with governments and non-governmental partners	Increased local and global climate change and environmental issues	Medium-High	High	National education and environment awareness strategy (2015-21) to provide impetus for improving community's commitment towards sustainability and environment protection	Educate youth to drive the UAE towards a sustainable future Engage key stakeholders to support environment sustainability	
Ministry of Economy	Develop the national economy and create a pro- business environment that contributes to achieve balanced and sustainable development	Challenges in the midst of global economy crisis; quest for a sustainable economy	Medium-High	High	Legislation to promote small and medium enterprises Efforts to develop UAE	Participation of national manpower by linking education with the market needs in high value sectors (e.g. food, agriculture, nutrition, livestock) Develop a regulatory framework to support key economic sectors and to encourage emerging sectors (e.g. food, agriculture, nutrition, livestock) Promote the policy of scientific research in line with national economic priorities (e.g. food, agriculture, nutrition, and livestock) Enforce strict legislation and monitoring on the imports of unhealthy food products	

UAE Cabinet Affairs and Future	Provide resolutions and directives to issues and projects assigned to it by the Prime Minister or the Cabinet; monitor government performance, contribute to improving the performance of the Federal Government, and raises the quality of government services and the communication systems of the federal entities; conduct research and studies relevant to the Federal Government strategy and vision, sets the frameworks and mandates of the Federal entities	Increased legislative pressure	Medium-High	High	youth development • National strategy for innovation	Mandate youth engagement and empowerment Organize training and awareness programs on relevant topics Establish a stimulating environment for innovation (technological infra-structure) Develop government innovation through an integrated support system (inter-disciplinary approach, national training and educational programs) Encourage private sector and prepare individuals to create innovative products and relevant educational materials (research and health)
Ministry of Infrastructure Development	Achieve sustainable development in planning, establishing and maintaining infrastructure projects and organize the national-housing sector through outstanding organizational performance according the world's highest standards	Community pressure	Medium-High	High		Create more spaces and innovative facilities for increasing physical activity and leisure time activities in community set-ups
Ministry of Finance	Manage and develop the financial resources of the Federal Government, through the implementation of effective financial policies and premium national and international relations for the protection and safety of the financial system	Challenges of inadequate budget for nutrition agenda	Medium-High	High	Strategic plan to improve the effectiveness and efficiency of planning and financial systems, develop laws and legislations, upgrade services, diversify federal financial resources, and establish a tax system	Allocate adequate budget and scale up financial provisions for nutrition and health activities such as national nutrition survey
Ministry of Presidential Affairs	Manage and develop the financial resources of the Federal Government efficiently and creatively, through the implementation of effective financial policies and premium national and international relations		Medium-High	High	Pivotal authority to provide support and consultations in developing national policies and community services	Put nutrition agenda as a national political mission to promote health of UAE population
Ministry of Interior		Security issues in the access of UAE population in collecting data for surveys	Medium-High	High	High quality security and safety systems and utilization of security information	Provide security and safety support for accessing the population for data collection in nutrition surveys Create more safe walk ways and bicycling tracks on the roadsides to enhance physical activity
Ministry of Labor	Regulate the labor market to boost UAE citizens' participation, to achieve general protection, flexibility, and to attract talented cadres through an integrated system of standards, policies and regulatory tools, institutional partnership and outstanding services	Low employee: client ratio of nutritionists and dictitians in the market	Medium-High	High	Strategic plan to promote the participation of UAE citizens in the private sector; maintain labor market stability through balancing interests of both production parties in conformity with UAE national legislation	Increase national human resource by recruiting emirate labor force in nutrition departments in public and private sectors Protect the rights of the employees

Ministry of Foreign Affairs	Promote the strategic political and economic interests of the UAE at international level with other countries		Medium-High	High	Strategic links with countries across the globe	Regional and cross-cultural exchange of expertise and information Scale up medical and health tourism
Ministry of Social Affairs	Social stability and security for community	Increased social burden	Medium-High	High		
Ministry of Public Works	Achieve balanced sustainable development and provide high quality of life for the people of UAE through outstanding corporate performance in organizing, planning, construction and maintenance of infrastructure and housing projects in the cities and towns according to the highest international standards		Medium-High	High	and cultural national growth through achievements in	Scale up regional and international trade (healthy food supplies), and medical/health tourism through provision of state of art infrastructure and facilities

INTERNATIONAL ORGANIZATIONS AND CIVIL SOCIETY GROUP

Stakeholder and basic characteristics		How are they affected by the problem?	of human, financial		Motivation to produce change	Possible actions to address stakeholder's interest
Diabetes Associations •Rashid Center for Diabetes and Research in Dubai •Rashid Center for Diabetes and Research in Ajman • Friends of Diabetes	Prevent and provide care to manage diabetes mellitus Increase awareness through media campaigns	High burden of diabetes and related NCDs in the UAE population Increased need for resources	Human – medium; Financial – low; Technical – high		Highly motivated Strong knowledge and technical skills Highly qualified to contribute to prevention of DM Motivated to reduce obesity and achieve the goals of their mission	Provide health care in prevention and management of diabetes and related complications Organize health and nutrition awareness campaigns Collaborate with other sectors and institutions to reduce the burden of NCDs
Universities (offering health and nutrition/dietetics programs) • UAE University • University of Sharjah • Zayed University • Other universities in the UAE	Prepare graduates for future leadership through quality education Develop research solutions in areas strategic importance to UAE Collaborate effectively with other organizations Add to the pool of scientific evidence data at national and international platforms	Gap in the knowledge in society Lack of local research data	Human – medium; Financial – low; Technical – high		 Strong knowledge and technical 	Provide technical support and consultations Organize health and nutrition awareness campaigns Collaborate with other sectors and institutions to conduct research in strategic areas
Gulf Corporation Council (GCC)	A regional inter-governmental political and economic union consisting of 6 Arab countries of Persian Gulf with the objectives to: • Formulate similar regulations and legislations • Foster scientific and technical progress • Establish public-private collaborations • Scale up scientific research	High socio-economic cost and burden of NCDs and related complications Lack or inactivate legislations and regulations to support the reduction in NCDs	High	Medium-High	Regulations and legislations in the interest of the health of GCC countries	Enforce and monitor the GCC-SO endorsed nutrition labeling system Work on nutrient profiling system in GCC countries Unify the policies of import of healthy and unhealthy food and beverages in GCC countries with special emphasis on added sugar, salt/sodium and saturated/trans fats

Funding Agencies • Khalifa Foundation •Al Jalila Foundation • Sheikh Hamdan • National Research Foundation • Emirates Foundation	Promote medical/health education and research Provide financial support for ground breaking research that addresses health issues of the UAE and region	High dependency on external scientific evidence Lack of regional and national research data	Human – low; Financial – High; Technical – Medium	Low-Medium	Strength of providing financial funds and support	Increase the frequency and areas of applying for research funding Organize training programs and workshops for capacity building of researchers Boost and incentivize the local and regional research publications
World Health Organization	Attainment of the highest possible level of health by the people	High burden of NCDs in the UAE Need to scale-up collaborations among the government departments, civi society and other partners Need to strengthen leadership in health Lack of effective nutrition monitoring system in the country		High	Highest authority to provide governance on global health issues Strong knowledge and technical skills to address regional and local health/nutrition related issues	Provide technical support and guidance
UNICEF	Protect children's rights, help meet their basic needs and to expand their opportunities to reach their full potential	High prevalence of obesity and increased related risks in children Risk of maternal and infant mortality and morbidity	Medium-High	Medium		Advocate for child's right to health Influence government policies Strengthen service delivery Empower communities and build their capacities
FAO	Pioneer in technological innovation applied to the management of food, water and energy resources for sustainable growth		Medium-High	High	Contribute to the elimination of hunger and the reduction of poverty by improving agricultural and fisheries-based livelihoods Strengthen the sustainability of agriculture and fisheries production in the country Improve nutrition, food safety and food security Encourage innovation, technology sharing and capacity development in the agriculture sector	Nutrition education and garden based learning in schools, universities and other institutions and community set- ups Capacity building for potential women in establishing agri- business

PRIVATE SECTOR GROUP

Stakeholders and basic characteristics	Institutional Interest (Mission)	How are they affected by the problem?	Capacity in terms of human, financial, and technical resources	Political Influence	Motivation to produce change	Possible actions
Chambers of Commerce • Food and beverages industry	Sustain or increase profit Public image	Profits-losses	Financial – high	High	Low	Increase awareness of obesity and impact on morbidity and mortality Formulate and implement legislation for reduction of salt, sugar, fat in food Adherence to the legislation for food labeling and nutrition information Subsidies and discounts on healthy food options e.g. fruits and vegetables Increase tax on unhealthy food options e.g. fast food, sugary drinks
National Media Council • Media, communicatio n and entertainment industry of the 7 emirates	Sustain or increase profit	Profit losses	Financial - high	Low with government, high with community	Medium	Education campaigns/advertising/documentaries to increase awareness about the problem and impact of obesity on morbidity and mortality in mass media Public awareness of the legislation on ban of advertising of unhealthy foods (movies/collectibles/movie memorabilia toys e.g. kungfu panda) Adherence to the legislation on selling unhealthy food at entertainment venues –movie theatres, fairs etc.