

NON-COMMUNICABLE DISEASES IN NIGERIA: NOW MORE THAN EVER-A WAKE UP CALL FOR INTERGRATED PUBLIC HEALTH ACTION

SOHT LECTURE SERIES

BY

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EPIDEMIOLOGIST'S MANTRA

I keep six honest things **serving**
men, they taught me all I know,
their names are **who, when,**
where, why, what and How?

THE GENESIS

'Just because one is not sick doesn't mean one is healthy. Health is like money, we never have a true idea of its value until we lose it'

-Josh Billings

THE GENESIS

'Poor health is not caused by something you don't have, its caused by disturbing something that you already have. Health is not something you need to get, its something you have already if you *don't disturb* it.

Lets take charge of our health'

-Dean Ornish

THE GENESIS

Health-dimensions & determinants

Dimensions

✓ Seven (The POIS₂E₂)

Determinants

✓ Nine (The B₂EINGS₃)

THE GENESIS

Classification of diseases, illnesses, injuries & deaths

☐ COMMUNICABLE DISEASES-Group I

☐ NON-COMMUNICABLE DISEASES(NCDs)

✓ Group II: Cardiovascular diseases, cancers, etc

✓ Group III: External causes: injuries, etc.

NON-COMMUNICABLE DISEASES

Definition

- ✓ **Not synonymous with chronic diseases**
- ✓ **Diseases that are non-infectious and non-contagious**
- ✓ **Usually Chronic but can have acute exacerbations**
- ✓ **Aetiology is complex and multi-factorial**
- ✓ **Historically called disease of the rich because major NCDs were associated with socio-economic development**

NON-COMMUNICABLE DISEASES

Classifications

Major NCDs

- ✓ Cardiovascular diseases(CVDs)
- ✓ Cancers
- ✓ Chronic respiratory diseases
- ✓ Diabetes mellitus (Type 2)

Others

- ✓ Malnutrition
- ✓ Chronic kidney diseases
- ✓ Genetic disorders
- ✓ Mental disorders
- ✓ Accident, trauma and injuries

NATURAL HISTORY

Major Group II NCDs

- ✓ **Progressive disease- slowly**
- ✓ **Prolonged latency period**
- ✓ **Protracted course-usually lifelong**

PUBLIC HEALTH PROFESSIONALS FOR THE NEW CENTURY

Would you like to join?

- ✓ **Healthy people make health world, a healthy world is a wealthy world**
- ✓ **Public Health is about people. It is beyond the glittering surface of modern technology, the core space of every health system is occupied by the unique encounter between people who need services and those entrusted to deliver them. The trust is earned through a specialized blend of technical competence and service orientation, steered by ethical commitment and social accountability which forms the essence of professional public health work.**

HOW IT STARTED?

Health Transition

- ✓ World health is in a state of transition
- ✓ The **health transition** is characterized by
 - **Nutritional transition**
 - **Epidemiologic transition**
 - **Ecological transition**
 - **Demographic transition**
 - **Lifestyle transition**
 - **Globalization**

NCDs: Now more than ever

Global perspective

□ GLOBAL STATEMENTS ON NCDS

- ✓ Global Status Reports (GSRs)
- ✓ Global Burden of Diseases (GBDs)
- ✓ Mapping of NCDs and risk factors
- ✓ Atlas of NCDs and risk factors

NCDs: Now more than ever

Global perspective

□ CURRENT GLOBAL INTEREST

- ✓ Social epidemiology
- ✓ Geographic patho-epidemiology
- ✓ Adjusted life years & Disability activity life years
- ✓ Healthy life expectancy(HALE)
- ✓ Health-related quality of life(HRQoL)
- ✓ Premature death
- ✓ Specific cause morbidity & mortality
- ✓ All cause morbidity & mortality

NCDs: Now more than ever

Global trend-GBDs

- ✓ 1992, **First GBD** study by World Bank.
- ✓ 107 countries had “useable” information on cause of death from registration systems
- ✓ 55 countries (42 in sub-Saharan Africa) no information on adult mortality
- ✓ **Estimates based on many assumptions and extrapolations**

NCDs: Now more than ever

Global trend-GBDs

- ✓ In 2001, Second GBD study (in collaboration with WHO)
- ✓ 2001 GBD study covers 135 causes of death, 17 sub-regions, based on aggregation of country-level information
- ✓ In **2004** (published 2008) there were **59 million** deaths world-wide
- ✓ NCDs accounted for 60% of these deaths and injuries and violence 10%.

NCDs: Now more than ever

Global trend-GBDs

- **In 2008, (published 2011) NCDs are the leading cause of death in the world, responsible for 63% of the 59 million deaths.**
- **Nearly 80% of NCDs deaths occurred in low- and middle-income countries.**
- **More than 9 million of NCDs deaths occur before the age of 60.**
- **In 2008, Major NCD deaths were: CVD=17 million deaths(48%); cancers=7.6 million (21%), Chronic respiratory diseases(COAD, COPD)=4.2 million and Diabetes=1.3 million.**

NCDs: Now more than ever

Global trend-GBDs

- ✓ **In 2015, NCDs kill 38 million (70%) people each year**
- ✓ **28 million(three quarter) - occur in low- & middle-income countries**
- ✓ **16 million NCD deaths occur before the age of 70**
- ✓ **82% of NCD "premature" deaths occurred in low- & middle-income countries.**
- ✓ **Major NCD deaths: CVD= 17.5 million, Cancers=8.2 million, Respiratory diseases=4 million, DM= 1.5 million.**
- ✓ **Major NCDs account for 82% of all NCD deaths.**

NCDs: Now more than ever

Global trend-GBDs(projections)

- ✓ **By 2020 it is estimated that NCDs will account for 73% of all deaths**
- ✓ **NCDs are largely preventable by means of effective interventions that tackle shared risk factors**

MAJOR NCDs

Cardiovascular diseases

- Global perspective**
- ✓ **CVD is a major contributor to GBD in both developed and developing countries**
- ✓ **Increasing in developing nations due to health transition**
- In 2002**
- ✓ **16.7 million death particularly from IHD=7.2 million, stroke=5.5 million, HHD=3.9 million**
- ✓ **75% of CVD deaths in low and middle-income countries**
- In 2008**
- ✓ **17 million death**
- ✓ **90% of CVD death in low and middle-income countries**
- Projections**
- ✓ **By 2025, 20 million CVD deaths**

MAJOR NCDs

Cardiovascular diseases

□ Nigerian perspective

- ✓ CVD was once thought the health problem of affluent countries but now exist in Nigeria
- ✓ Since 2000, CVD has become a major clinic and public health challenge
- ✓ There is a myth in Nigeria that death whether sudden or protracted from stroke or myocardial infarction is most often attributed to spells on individual
- ✓ Of great concern is that most persons with CVDs are not routinely diagnosed and therefore do not receive appropriate management

MAJOR NCDs

Cancers

Worldwide

- ✓ 14.1 million adults had cancers
- ✓ 8.2 million died

Nigeria

- ✓ Burden of cancer is largely unknown
- ✓ 2 million cancer victims
- ✓ 100,000 new cases yearly
- ✓ 30 Nigerian women die everyday of breast cancer
- ✓ 1 Nigerian woman dies every hour of cervical cancer
- ✓ 14 Nigerian men die daily of prostate cancer

MAJOR NCDs

Diabetes mellitus- Yesterday, Today and tomorrow

World wide

- ✓ In 2011, 347 million people have DM**
- ✓ In 2015, 415 million people have DM**
- ✓ DM kills 1.5 million each year**

Nigeria

- ✓ In 2015, 1.56 million people have DM**

Projections

- ✓ By 2030, DM is predicted to become the 7th leading cause of global death**
- ✓ By 2040, the figures will double**

MAJOR NCDs

Diabetes mellitus- Yesterday, Today and tomorrow

- ✓ **80% of DM-related deaths occur in low- and middle-income countries.**
- ✓ **In developed countries most people with diabetes are above the age of retirement**
- ✓ **In developing countries those most frequently affected are aged between 35 and 64**

MAJOR NCDS

Chronic respiratory diseases-COPD

- ✓ In 2012, more than 3 million people died of Chronic Obstructive Pulmonary Disease (6% of all deaths globally that year)
- ✓ More than 90% of COPD deaths occur in low- and middle-income countries.
- ✓ Primary cause of COPD is tobacco smoke (through tobacco use or second-hand smoke)
- ✓ Affects men and women almost equally, due in part to increased tobacco use among women
- ✓ COPD is not curable, but treatment can slow the progress of the disease.

MAJOR NCDS

Chronic respiratory diseases-COAD

- ✓ 235 million people currently suffer from asthma. It is a common disease among children.
- ✓ Most asthma-related deaths occur in low- and lower-middle income countries.
- ✓ Strongest risk factors for developing asthma are inhaled substances and particles that may provoke allergic reactions or irritate the airways.
- ✓ Medication can control asthma.
- ✓ Avoiding asthma triggers can also reduce the severity of asthma.
- ✓ Appropriate management of asthma can enable people to enjoy a good quality of life.

NCDs: Now more than ever

Trend in Africa

- ✓ **African Region has not been spared by the global epidemic of NCDs**
- ✓ **Double burden of diseases**
- ✓ **In 2005, 28 million people died from a chronic disease**
- ✓ **CVDs killed five times as many people as HIV/AIDS.**
- ✓ **In Africa middle-aged adults are especially vulnerable to chronic disease.**
- ✓ **Thus, people tend to develop disease at younger ages, suffer longer, and die sooner than those in high income countries.**
- ✓ **This undermines countries' economic development as many of those affected are at the peak of their productive and economic activity.**

NCDs-Now more than ever

Trend in Africa

- ✓ **WHO African projections (Next 10 years)**
- ✓ **28 million people will die from NCDs**
- ✓ **Rate of increase of deaths from NCDs will outstrip that from infectious diseases, maternal and perinatal conditions and nutritional deficiencies**
- ✓ **Deaths from diabetes will increase by 42%**

NCDs-Now more than ever

Trend in Nigeria-Silent killer

□ NCDs Country profile(2011)

✓ NCDs=33%, CD=67%

□ NCDs

✓ CVDs=12%

✓ Injuries=5%

✓ Cancers=4%

✓ Respiratory diseases=3%

✓ Diabetes mellitus=2%

✓ Other NCDs=7%

NCDs-Now more than ever

Trend in Nigeria-Silent killer

□ NCDs Country profile(2014)

✓ NCDs=34%, CD=66%

□ NCDs

✓ CVDs=7%

✓ Injuries=10%

✓ Cancers=3%

✓ Respiratory diseases=1%

✓ Diabetes mellitus=2%

✓ Other NCDs=11%

DRIVERS OF NCDs

The inextricable web-Vision 2025

- Risk factors of NCDs have been the subject of intense Public Health research
- Generally classified:**
 - ✓ Constitutional(non-modifiable):eg heredity
 - ✓ Non-constitutional(modifiable):Cardio-metabolic eg hypertension; behavioural eg tobacco use
 - ✓ Novel or emerging eg C-reactive proteins
- Specifically**
 - ✓ Proven
 - ✓ Possible
 - ✓ Probable
 - ✓ Putative
 - ✓ Potential

RISK FACTORS OF NCDs

Interactions and interplay

- ✓ Drivers of morbidity and mortality from NCDs have been attributed to genetic and environmental factors especially lifestyles.
- ✓ **Dr Joslin Elliot** gun-bullet description
- ✓ Risk factors can be
 - Addictive
 - Multiplicative

GENETICS AND NCDs-Is there any relationship?

What is your genogram?

- ✓ Relevance of genetics in NCDs has been a subject of increasing research priorities in recent years
- ✓ Genetic contribution has variable penetrance and expressions
- ✓ Family history of NCDs increases the risk
- ✓ Though not every person with family history of NCDs develops NCDs but their chances are higher
- ✓ Such family members who may not develop NCDs are probably those with low risk profile for the NCDs

AGE AND NCDs

How old are you?

- ✓ Ageing is an inevitable part of human life and brings with it physiologic decline(homeostenosis) and disease conditions like NCDs
- ✓ Chronological time therefore plays paramount role in the epidemiology of NCDs
- ✓ Risk of NCDs increases with age
- ✓ Although, NCDs were previously described as the diseases of the middle age and the elderly
- ✓ Recent evidence shows that younger age groups are affected particularly in high risk population

GENDER AND NCDs

What is your sex?

- ✓ Sex is a constitutional risk factor for NCDs
- ✓ Gender differences have been reported to exist in sex-related NCDs
- ✓ Patho-physiologically, the sex variations in the epidemiology of sex-related NCDs is attributed partly to hormonal differences

RACE AND NCDs

What is your race?

- ✓ NCDs have been reported in every race and ethnic groups
- ✓ However, racial aggregation have been described in varying prevalence and proportions in different global populations
- ✓ This could be due to genetic factors in addition to social determinants of NCDs

TOBACCO USE AND NCDs

Is there a safe limit?

- ✓ **Globally, In 2010, about 1 billion smokers, with 5 million death every year**
- ✓ **Second leading cause of global mortality**
- ✓ **In 2015, 6 million deaths every year**
- ✓ **Projected increase to 8 million by 2030**
- Forms of tobacco**
 - ✓ **Smoked**
 - ✓ **Smokeless**
 - ✓ **Chewing**

TOBACCO USE AND NCDs

Is there a safe limit?

- Cigarette smoking**
- ✓ **Active smoking**
- ✓ **Passive smoking(Environmental tobacco smoke)**
- ✓ **There is no risk-free level of exposure to tobacco smoke**
- ✓ **Amount currently smoked is the principal risk factor for smoking-related CVDS and duration of smoking for cancer-related NCDs**
- ✓ **“Some people commit suicide by drowning or hanging but many by smoking”**
- ✓ **‘Guns kill people faster but cigarettes kill people slowly**
- ✓ **Message from Nigeria(previous)-Smoking is dangerous to health**
- ✓ **What is the current message(FMOH)?**

TOBACCO USE AND NCDs

Pathway to smoking-free life

❑ QUITTING SMOKING

- ✓ Within 20 mins, heart rate and BP drops
- ✓ Within 12 hours, blood carbon monoxide level normalizes
- ✓ Within 3 months, circulation and lung function improves
- ✓ Within 9 months, cough is less and breathing easier
- ✓ After 1 year, risk of CHD is cut in half
- ✓ After 5 years, risk of cancers of aero-digestive tract and bladder is cut in half
- ✓ After 10 years, risk of lung cancer is cut in half and risk of laryngeal and pancreatic cancers are decreased
- ✓ After 15 years, risk of CHD is the same as non-smokers

PHYSICAL ACTIVITY AND NCDs

Any dose-response relationship?

- ✓ Globally about 60% of the world population do not achieve the minimum recommended of 30 minutes of moderate physical activity daily
- ✓ Physical inactivity is the 4th risk factor of global mortality
- ✓ Bio-physically, human body is designed to move, thus being physically active can offer protection from NCDs
- ✓ Physical activities
 - Transport-time
 - Leisure-time
 - Domestic-time
 - Leisure-time

PHYSICAL ACTIVITY AND NCDs

Any dose-response relationship?

☐ MEASUREMENT OF LEVELS OF PHYSICAL ACTIVITY

- ✓ Subjective methods
- ✓ Objective methods
- ✓ Prescription of physical activity: FITTT-principle

PHYSICAL ACTIVITY AND NCDs

Any dose-response relationship?

- ❑ World move for health day-10th May
- ✓ Physical activity lowers risk of NCDs
- ✓ Exercise more and have less risk of NCDs
- ✓ According to O' Donnell of IOM, Sitting is the new world tobacco
- ✓ Theme(May 2016)
 - ***SIT LESS, MOVE MORE***
 - ***DRIVE LESS, WALK MORE***

DIET AND NCDs

The perpetual challenge! What should I eat?

- ✓ The world is in a stage of nutritional transition which is more pronounced in developing nations
- ✓ In 2013, GBD Study reported that dietary risk factors accounted for 11.3 million deaths and 241.4 million DALYs
- ✓ Despite the nutritional properties of food and diets, they have also nutraceutical potential to lower the risk of NCDs
- ✓ However, diet is not the only aspect of a comprehensive approach for the control of NCDs, other aspects of lifestyle interventions are necessary
- ✓ Gene-diet-NCDs interactions have been elucidated

DIET AND NCDs

The perpetual challenge! What should I eat?

- ❑ Various dietary regimen for general and specific population
- ✓ Food pyramid
- ✓ DASH-diet
- ✓ Mediterranean diet
- ✓ Atherogenic diet
- ✓ Diabetic diet
- ✓ Functional food
- ✓ Diet prescription: FATT-principle

BODY WEIGHT/SHAPE AND NCDs

The past, the present and the future

- ❑ Is overweight or obesity- Problem of the rich or poor?
- ❑ Among the adults
 - ✓ In 2010, WHO estimated that 1 billion people adults were overweight and 300 million were obese
 - ✓ In 2014, WHO reported that 1.9 billion adults were overweight and at least 600 million were obese
 - ✓ By 2030, projected increase to 3.3 billion(57.8%)
- ❑ Among children
 - ✓ **Childhood obesity is one of the most serious public health challenges of the 21st century.**
 - ✓ **Globally, in 2008, 40 million children were overweight**
 - ✓ **Overweight children are likely to become obese adults**

BODY WEIGHT AND NCDs

What is the ideal body weight?

- ✓ General obesity eg BMI
- ✓ Regional obesity
 - Neck obesity
 - Truncal obesity
 - Abdominal obesity
 - Hip obesity
- ✓ Ideal body weight(Brocca's index)= Height (cm)-100
- ✓ To stay healthy: Keep your waist circumference less than half your height
- ✓ The more obese a person is, the bigger the risk of NCDs especially metabolic NCDs

BODY SHAPE AND NCDs

What is the ideal shape?

- ✓ Apple shape
- ✓ Pear shape
- ✓ Relative fat mass
- ✓ Absolute fat mass
- ✓ Apple shape is at higher risk of CVDs than pear shape

ALCOHOL AND NCDs

How much alcohol do I need? The good, the bad and the ugly

- Forms of alcoholic beverages
 - Beer
 - Spirits
 - Wine
 - Fortified wine
- Research studies have described the beneficial and harmful effects of different categories of alcoholic beverages
- Various level of alcohol consumption has been recommended for the general and specific high risk population group

ALCOHOL AND NCDs

How much do I need? The good, the bad and the ugly

- ✓ However, it is not recommended that non-drinkers should begin to use alcohol for perceived health benefits
- ✓ There are other negative aspects of harmful consumption of alcohol like dyslipidaemia, dysglycaemia, heart failure, cancers, etc
- ✓ Assessment for alcohol use can be subjective and objective
- ✓ Prescription of alcohol: FAT-principle
- ✓ What is the Current message on alcohol in Nigeria?

ENVIRONMENT AND NCDs

How safe is our environment?

In 2012 (reported by WHO in 2014), 7 million people die from air pollution (in-door and outdoor)

Domestic and occupational exposures

Disease in-door out-door

✓ IHD 26% 40%

✓ Stroke 34% 40%

✓ COPD 22% 11%

✓ Acute RI's 12% 3%

✓ Lung cancer 6% 6%

Reducing air pollution could save millions of lives

STRESS AND NCDs

A fact or A farce? Navigating the evidence

Types of stress

✓ Eustress

✓ Stress

✓ Distress

SLEEP AND NCDs

A myth or A reality?

- How much sleep do I need?
 - ✓ Short duration
 - ✓ Moderate duration
 - ✓ Long duration

INTERGRATED PUBLIC HEALTH INTERVENTIONS-

How far have we done in Nigeria

- SWOT-analysis**(strength, weakness, opportunity and threats)
- Quality metrics
- Common task and goal
- Complementary competence
- Mutually accountable

INTERGRATED PUBLIC HEALTH INTERVENTIONS-

Why the need for integration in Nigeria?

- ✓ The responsibilities of management of NCDs do not depend on special NCDs hospitals or clinics but rather with other health professionals who care for NCDs in Nigeria
- ✓ Requires a synergy of effort to achieve common goal and objectives
- ✓ Requires a change process and a change agent
- ✓ Everybody must have the right information

INTERGRATED PUBLIC HEALTH INTERVENTIONS-A wake up call

- ✓ Integrated public health interventions for NCDs is the current global trend and mandate
- ✓ NCDs prevention is better, easier and cheaper than their treatment
- ✓ Involves all disciplines of medicine, allied and social sciences
- ✓ Entails public orientation which is the ability to reconcile the health needs of individual and health need of the population in which they live in a balance with available resources
- ✓ Fragmentation of public health into specialties continue to increase fragmentation of population health care for NCDs

INTERGRATED PUBLIC HEALTH INTERVENTIONS-A wake up call

'To know about the past is to know that things have not always been as they are now and by implication that they need not remain the same in the future'

-John Tosh

INTERGRATED PUBLIC HEALTH INTERVENTIONS-A wake up call

**'It is not the strongest of the species
that survive nor the most intelligent
but the one most responsive to
change'**

-Charles Darwin

ELEMENTS OF INTERGRATION

- ✓ **Inter and intra-professional communication**
- ✓ **Inter and intra-professional relationships**
- ✓ **Inter and intra-professional respect**
- ✓ **Requires people, advocates and system to develop and promote care pathway for NCDs**
- ✓ **NCD Care Pathway**
 - **Curative care**
 - **Preventive care**
 - **Promotive care**
 - **Maintenance care**
 - **Personalized care**
 - **Predictive care**
 - **Rehabilitative care**

INTERGRATED PUBLIC HEALTH INTERVENTIONS- The way forward

- Public health system re-thinking**
- Public health system governance**
- Synergy of performance**
- ❖ **Professional performance**
- ✓ **Ethics**
- ✓ **SQLI-role(Safety, quality care, information, leadership)**
- ❖ **Corporate performance**
- ✓ **Quality of care metrics**
- Public health system responsiveness**

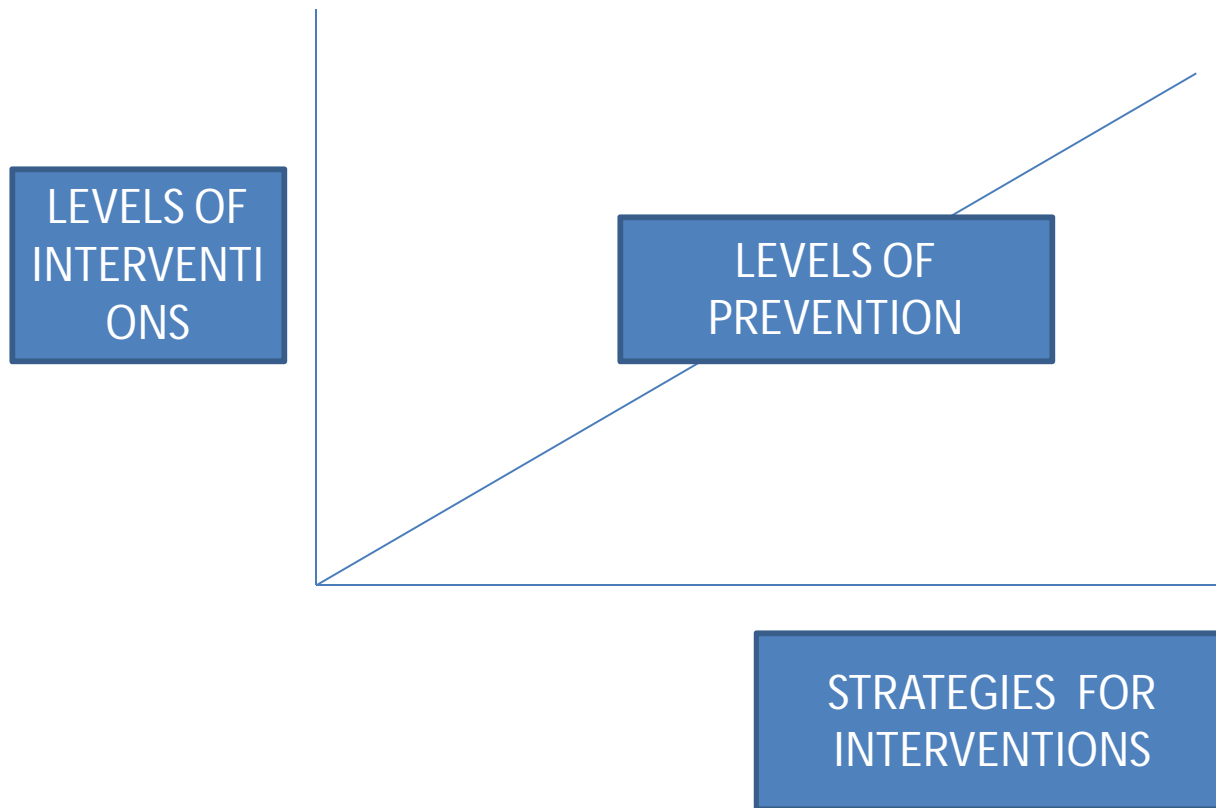
INTERGRATED PUBLIC HEALTH INTERVENTIONS-

The Public health responsiveness

- ❑ Integration should impact on public health responsiveness targeted at multiple determinants of NCDs
- ❑ It is aimed at public engagement, empowerment, and enlightenment leading to energetic coalition
- ✓ Contact with the community or public
- ✓ Coordination response: vertical and horizontal
- ✓ Comprehensive response: Preventive, promotive, maintenance care
- ✓ Continuity of care: The foundation of adult health is laid in childhood. Prevention over lifespan through primary prevention
- ✓ Contextual response: Proximal context(the family) and distal context(the community)

INTERGRATED PUBLIC HEALTH INTERVENTIONS-

The Public health Control Approach



THE PUBLIC HEALTH CONTROL APPROACH-Levels of prevention

- Primordial prevention**
- ✓ **Community-based approach**
- ✓ **Reduces risk factors**
- ✓ **Target risk factors of NCDs[Risk of NCDs is present, Disease/illness is absent, Action to minimize future hazards]**
- ✓ **Targets social determinants of NCDs**

THE PUBLIC HEALTH CONTROL APPROACH-Levels of prevention

- Primary prevention**
- ✓ **Population-wide approach**
- ✓ **Reduces incidence of NCDs**
- ✓ **Target risk factors of NCDs[Risk of NCDs is present, Disease/illness is absent, Actual disease can be prevented]**
- ✓ **Screening for subjective risk factors of NCDs eg family history of CVDs**
- ✓ **Prescription of prophylactic lifestyles through HIEC**
- ✓ **Prescription of primary chemo-prophylactic treatment eg Use of aspirin**
- ✓ **Prescription of primary chemo-preventive treatment eg Use of metformin**
- ✓ **Immuno-prophylaxis eg cervarix for cancer of cervix**

THE PUBLIC HEALTH CONTROL APPROACH-Levels of prevention

Secondary level of prevention

- ✓ Individual approach
- ✓ Target risk factor and NCDs[Risk factor is present, disease is present, illness is absent, prevent other co-morbidities, complications and further progression
- ✓ Screening for early detection: subjective screening, objective risk factors eg physical examination, investigations eg biochemical, imaging etc
- ✓ Secondary chemoprophylaxis eg Use of Aspirin, use of statins
- ✓ Surveillance

THE PUBLIC HEALTH CONTROL APPROACH-Levels of prevention

Tertiary prevention

- ✓ Individual approach
- ✓ Target risk factors, NCDs and complications[
Disease is present, illness is present]
- ✓ Limitation of disability
- ✓ Optimize residual health
- ✓ Concentrate on ability rather than disability
- ✓ Remember there is ability in disability
- ✓ Add lives to their days and not days to their lives

THE PUBLIC HEALTH CONTROL APPROACH-Levels of prevention

Quaternary prevention

- ✓ Illness is present, disease is absent
- ✓ Don't mistake risk factor with disease
- ✓ Action taken to protect individuals from medical invasions or unnecessary interventions
- ✓ Interventions should be based on
 - **Evidence-based health care**
 - **Narrative-based health practice**

THE PUBLIC HEALTH CONTROL APPROACH-Strategies for intervention

- ✓ Involve behaviour intervention and communication
- ✓ Educational measures
- ✓ Engineering
- ✓ Enforcement activities
- ✓ The **complement of strategies** for intervention should implement socio-behavioural and environmental modifications.

THE PUBLIC HEALTH CONTROL APPROACH-Levels for intervention

- ❑ Applied at individual, family, community, local, state and national level**
- ❑ At the individual and Public health professional levels, the control strategies include:**
 - ✓ Education and counselling to promote self awareness**
 - ✓ Motivation and monitoring of lifestyles, family and social support groups**
 - ✓ Guideline development for the identification of high risk individuals and groups**
 - ✓ Individual responsibility can only have its full effect where people have access to a healthy lifestyles, and are supported to make healthy choices**

THE PUBLIC HEALTH CONTROL APPROACH-Levels for intervention

- At work place and school levels, the control measures include:**
- ✓ **Provision of requirements for daily physical education**
- ✓ **Banning of soft drinks and low nutritive value diets**
- ✓ **Inclusion of topics on health promotion and maintenance in the curriculum**
- ✓ **Family involvement and provision of wellness programs at the work place and school health**
- ✓ **Supportive environments and communities are fundamental in shaping people's choices and preventing NCDs**

THE PUBLIC HEALTH CONTROL APPROACH-Levels for intervention

- ✓ At the local and state level, the control strategies include:
- ✓ Support for safe and convenient venues for physical activities such as walking paths and bicycle lanes
- ✓ Sponsorship of local public education campaigns and events to promote physical activities like walking groups and clubs.

THE PUBLIC HEALTH CONTROL APPROACH-Levels for intervention

- At the national level the measures involve:**
 - ✓ **Setting up of national priorities to curb NCDs**
 - ✓ **Taxation on foods with low nutritional value and confectionaries**
 - ✓ **Subsidies for “healthy” foods**
 - ✓ **Funding research on NCDs**
 - ✓ **Health care financing like reimbursement for interventions for health promotion**
- Control measures at the mass media and food industry includes:**
 - ✓ **Promotion of healthy lifestyles and realistic body images,**
 - ✓ **Dissemination of health information, labelling on packaged foods to identify ingredients and nutrient contents**
 - ✓ **Inclusion of healthy food choices on restaurant menu and restriction on advertisement for low nutritional value foods and unhealthy lifestyles.**

THE PUBLIC HEALTH CONTROL APPROACH-Levels for intervention

☐ World Health Organization

- ✓ WHO mobilizes the range of stakeholders who have vital roles to play in shaping healthy environments and making healthier lifestyle options**
- ✓ The global epidemic of major NCDs requires a population-based multi-sectoral, multi-disciplinary, and culturally relevant approach**

PUBLIC HEALTH ACTION

- ✓ **Requires actionable ideas, proactive actions**
- ✓ **Requires right information and data**
- ✓ **Target the risk factors**
 - **Subjective risk factor screening**
 - **Objective risk factor screening**
- ✓ **Target the disease**
- ✓ **Metabolic signatures**

PUBLIC HEALTH ACTION

WHO Action Plan

- ✓ **WHO's Action Plan for the Global Strategy for the Prevention and Control of NCDs provides a roadmap to establish and strengthen initiatives for the surveillance, prevention and management of NCDs**
- ✓ **There is the 2008-2013 Action Plan for the implementation of the WHO Global Strategy on the Prevention and Control of Noncommunicable Diseases. This Action Plan was endorsed by the 2008 World Health Assembly.**
- ✓ **It provides countries a roadmap for taking action against NCDs, including raising the priority of NCD control, improving disease surveillance, enabling governments to take comprehensive action against the diseases, and protecting countries, particularly developing, from the burden of the epidemic.**

PUBLIC HEALTH ACTION

WHO Action Plan

- ✓ **To raise the priority accorded to NCDs in development work at global and national levels, and to integrate prevention and control of such diseases into policies across all government departments**
- ✓ **To establish and strengthen national policies and plans for the prevention and control of NCDs**
- ✓ **To promote interventions to reduce the main shared modifiable risk factors for NCDs : tobacco use, unhealthy diets, physical inactivity and harmful use of alcohol**

PUBLIC HEALTH ACTION

WHO Action Plan

- **To promote research for the prevention and control of NCDs**
- **To promote partnerships for the prevention and control of NCDs**
- **To monitor NCDs and their determinants**
- **Evaluate progress at the national, regional and global levels**

PUBLIC HEALTH ACTION

National Action Plan-WHO 2014

Has an operational NCD unit/branch or department within the Ministry of Health, or equivalent	No
Has an operational policy, strategy or action plan to reduce the harmful use of alcohol	No
Has an operational policy, strategy or action plan to reduce physical inactivity and/or promote physical activity	No

PUBLIC HEALTH ACTION

National Action Plan-WHO 2014

- ✓ Has an operational policy, strategy or action plan to reduce unhealthy diet and/or promote healthy diets-No
- ✓ Has evidence-based national guidelines/protocols/standards for the management of major NCDs through a primary care approach-No
- ✓ Has an NCDs surveillance and monitoring system in place to enable reporting against the nine global NCD targets-Yes
- ✓ Has a national, population-based cancer registry-No

PUBLIC HEALTH DIRECTION

World Health Organization

- ✓ **In 2015, countries set national targets and measure progress on the 2010 baselines reported in the GSR ON NCDs 2014**
- ✓ **The UN General Assembly will convene a third high-level meeting on NCDs in 2018 to take stock of national progress in attaining the voluntary global targets by 2025.**
- ✓ **High-income countries are nearly 4 times more likely to have NCD services covered by health insurance than low-income countries**
- ✓ **Countries with inadequate health insurance coverage are unlikely to provide universal access to essential NCD interventions.**
- ✓ **Lower-income countries generally have lower capacity for the prevention and control of NCDs.**

PUBLIC HEALTH DIRECTION NIGERIA

- ✓ To lessen the impact of NCDs on Nigerians, a comprehensive approach is needed that requires all sectors, including health, finance, education, agriculture, industry, etc, to work together to reduce the risks associated with NCDs
- ✓ Low-cost solutions exist to reduce the common modifiable risk factors eg tobacco use, unhealthy diet and physical inactivity, and the harmful use of alcohol
- ✓ Need for high impact essential NCD interventions that can be delivered through a primary health-care approach
- ✓ Greatest impact can be achieved by creating healthy public policies that promote NCD prevention and control and reorienting health systems

PUBLIC HEALTH DIRECTION NIGERIA

- ✓ Mapping of NCDs and risk factors
- ✓ Atlas of NCDs and risk factors
- ✓ Social mobilization and public health education campaign
- ✓ Advocacy: leadership building

PUBLIC HEALTH DIRECTION

NIGERIA-Food, diet and nutrition

- ❑ Behavior change communication on food and nutrition
 - ✓ Schools
 - ✓ Supermarkets
 - ✓ Food catering
- ✓ Nutrition labeling to include sodium contents
- ✓ Restaurant salt reduction action
- ✓ Promotion of Food nutrition label of processed food
- ✓ Healthy kitchen campaign

PUBLIC HEALTH DIRECTION NIGERIA-Training and development

- ✓ Training and development of key populations
- ✓ Public health programs should have SMART-PIE
- ✓ Strategies include government leading, community involved, partnership building, and comprehensive prevention.

PUBLIC HEALTH DIRECTION

NIGERIA-Research priorities

- ✓ Population-based survey pre- and post-interventions
- ✓ Public safety
- ✓ Research orientation on NCDs in Public Health: Use pre-validated instrument
- ✓ Quality concepts in Public health: Greatest health benefits with least health risk to the greatest number of people giving the available resources
- ✓ Quality assurance: Ensuring that the services provided to the public are the best possible given existing resources and current public health knowledge
- ✓ Current emphasis on quality metrics has shifted from quality assurance to quality improvement

PUBLIC HEALTH DIRECTION NIGERIA-Service priorities

- Establishment
- ✓ Institute of Public Health: Professionally oriented, not an academic institute for awarding degrees
- ✓ Health promotion and wellness programs
- ✓ Public Health laboratories
- ✓ Public health professionals should learn to render services for which they are professionally certified

NCDs in Nigeria, now more than ever What do we do?

DO WE

RE-BRAND OUR PUBLIC HEALTH APPROACH

OR

REFORM OUR PUBLIC HEALTH APPROACH

OR

TRANSFORM OUR PUBLIC HEALTH APPROACH

NCDs in Nigeria, now more than ever

What ever options we chose?

- The health resources for NCDs should be committed to the community in a systematic manner for quality improvement
- Quality improvement process for NCDs is a public health priority
- Integration of public health approaches, actions and direction

NCDs in Nigeria, now more than ever
A new story begins today-integration

WOULD
YOU
LIKE
TO JOIN?

NCDs in Nigeria, now more than ever
A new story begins today-integration

'To come together is the beginning, To
keep together is progress and To work
together is success'

Henry Ford

NCDs in Nigeria, now more than ever
A new story begins today-integration

**'All the knowledge I possess
everyone else can acquire, but
my heart is all my own'**

-Johann Von Goethe

NCDs in Nigeria, now more than ever

A new story begins today-integration

☐ Integration

- ✓ Require multidisciplinary approach for NCDs
- ✓ Require evidence-based NCDs structure and process
- ✓ Require triangulation of control strategies for NCDs
- ✓ Public centered
- ✓ If you cannot change yourself, change you attitude
- ✓ Excellence is a habit not an act

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