DIABETES ADVOCACY & CARE IN NIGERIA

Includes proceedings of National Diabetes Educators' Workshops conducted by Diabetes Association of Nigeria (DAN);

&

A Supplement containing the 2014 Revised Version of the Clinical Practice Guidelines for Diabetes Management in Nigeria.

(DAN is a not-for-profit organization incorporated in Nigeria, No.7951 Part C of Corporate Affairs Commission)

By:

DIABETES ASSOCIATION OF NIGERIA (DAN)

A member of International Diabetes Federation (IDF)

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CHAPTER ONE

ADVOCACY FOR DIABETES & OTHER NON-COMMUNICABLE DISEASES

(By: Sunny Chinenye, T.O. Johnson, GC Onyemelukwe, Reginald N Oputa, Mojishola Oluwasanu & Ogbera AO)

Introduction

Diabetes Mellitus is the commonest endocrine-metabolic disorder in Nigeria similar to the experience in many other parts of the world.
The majority of people with diabetes in Nigeria (>90%) have type 2 diabetes (T2DM). While T2DM predominantly affects older individuals in developed countries, in developing nations like Nigeria, it affects the younger population in the prime of their working lives and thus poses an even greater threat to the health of these individuals.
This epidemic of diabetes is paralleled by a corresponding increase in the prevalence of acute hyperglycemic emergencies, microvascular and macrovascular complications which accounts for much of the premature morbidity and mortality due to diabetes in Nigeria.

Additionally, an increased prevalence of hyperglycaemia in pregnancy shows the far-reaching implications of the diabetes cycle with its attendant high maternal and perinatal morbidity and mortality.

Given the rapid escalation of the diabetes epidemic in Nigeria, all levels of prevention and care (primary, secondary and tertiary) are needed to be put into action simultaneously in the spirit of universal health coverage. Over 50% of people with diabetes especially T2DM, remain undiagnosed, thus the priority should be to screen, diagnose and treat as many Nigerians as possible with T2DM.
In a populous country as Nigeria with over 160 million people with diverse cultures and languages, the screening and diagnosing methods for diabetes especially in our rural communities should be simple, cost effective and less time consuming, taking into consideration the unique risk factors.
Diabetes is a common cause of sudden death, amputations, kidney failure, heart attacks, stroke and blindness in Nigeria.
Diabetes care & prevention are offered by physicians, nurses, dieticians, educators etc. with the quality and magnitude of care dictated by government policies.

The challenges confronting patients and care providers in Nigeria include:

1. Inadequate and declining support to diabetic patients.
2. Frustration and helplessness among the less privileged persons and families of diabetics
3. Increasing complications and deaths associated with diabetes resulting from poverty, fake-drugs and poor knowledge base.
4. Increasing misinformation about diabetes and the practice of inappropriate care across the nation, especially from alternative healthcare providers.
5. Absence of standard treatment Guidelines fully disseminated and used by health professionals in Nigeria.
6. Very weak financial status of diabetes advocacy groups at all levels, thereby decreasing performance and output.

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Info Box 1.1:

- Global Diabetes Landscape

Year	1994	2000	2007	2011	2013	2035
Global DM Burden (millions)	100	171	250	366	382	592

- Nigerian Diabetes Landscape

Year	1960s Lagos	1988 Lagos	1997 FMOH	2003 PortHarcourt	2012 Uyo
DM Prevalence (%)	<1.0	1.8	2.2	6.8	10.5

Current estimates of DM prevalence are 0-2% in rural adults and 6-10% in urban dwelling adults in Nigeria. This translates to at least 4-5 million people living with DM, a large proportion of which are undiagnosed.

1.1: Advocacy

Objectives:

- **Definition of Terms**
- **Different types of policy change**
- **Differentiate policy advocacy from other related concepts**

Advocacy defines the series of actions taken and issues highlighted to change the "what is" into a "what should be" considering that this "what should be" is a more decent and a more just society (situation).

Those actions, which vary with the political, economic and social environment in which they are conducted, have several points in common. They are:

- Question the way policy is administered
- Participate in the agenda setting as they raise significant issues.
- Target political systems "because those systems are not responding to people's needs".
- Propose policy solutions.
- Open up opportunity for public discourse.

Advocacy is a process of supporting and enabling people to:

a. Express their views and concerns
b. Access information and services
c. Defend and promote their rights and responsibilities
d. Explore choices and options

An advocate is someone who provides advocacy support when you need it.

1.2. Health Advocacy

Health advocacy supports and promotes patients' health care rights as well as enhance community health and policy initiatives that focus on the availability, safety and quality of care.

Health Advocacy encompasses direct service to the individual or family as well as activities that promote health and access to healthcare in communities and the larger public.

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Health Advocates support and promote the rights of the patient in the healthcare arena, help build capacity to improve community health and enhance health policy initiatives focused on available, safe and quality care.

Some people see advocacy as organizing marches and demonstrations, others see advocacy as involvement in political campaigns or lobbying in the corridors of power, while some see it as editorial comment in the mass media. Effective advocacy may require all of these tools.

Health Advocacy is a combination of individual and social actions designed to gain political and community support for a particular health goal or program. Action may be taken by, or on behalf of, individuals and groups to create living conditions which promote health and healthy lifestyles.

1.3 What are the Principles of Advocacy?

Advocacy for health is not a 'one-off' event. It requires sustained action with multiple players. Advocacy needs to be well planned. Previous advocacy efforts provide well-worn tracks and it is important to take the lessons from earlier endeavours. These include:

Table 1.1: Principles of Health Advocacy

Be Focused and Relevant	- Be clear about what you are advocating for - Establish common themes and messages - Don't stray from your message - Make it local and keep it relevant
Work in Partnership	- Target individuals and Organizations that can get your message across - Get other people's forums and use them for your own - Recruit corporate allies - Develop media contracts (including those outside medicine)
Be Credible and Appealing	- Know the facts and the numbers - Do your homework and document your findings - Find 'attractive' spokes-people - Use icons who have credibility - Use interesting stories
Be Tactical	- Start by assuming the best of others (but know peoples interests and arguments) - Don't take 'no' for an answer - Be passionate and persistent - Set realistic goals - Plan for small wins - Take the high ground - Be opportunistic and creative - Employ multiple strategies - Be willing to compromise

In the policy arenas, health advocates work for positive change in the health care system, improved access to quality care, protection and enhancement of patient's rights from positions in government agencies, disease-specific voluntary associations, grassroots and national health policy organizations and the media.

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A separate and identifiable field of Health Advocacy grew out of the patient rights movement of the 1970s in USA, e.g. National Welfare Rights Organization (NWRO)

Info. Box 1.2

Policy advocacy is the deliberate process of informing and influencing decision-makers in support of evidence-based policy change.

- Policy advocacy is a deliberate process.
- It aims to inform and influence decision-makers.
- Policy advocacy seeks changes that are evidence-based.
- The ultimate goal of policy advocacy is to achieve a desired policy change.

1.4 Types of Policy Change

Policy "change" can take several forms:

- Eliminate a harmful policy.
- Update or reform an existing policy.
- Develop a new policy.
- Fund a policy. (This includes informing and influencing budgets and the allocation of resources.)

1.4.1 Types of policy documents

- National NCD Policy & Strategic Plan
- National Action Plan
- Policy for Health Partnership
- Parliamentary Acts
- Clinical Practice/Service Delivery Guidelines
- Laws
- Budget/Line items from budgets
- Memos/Circulars/Directives
- Treaties/Conventions
- Regulatory Policies
- Essential Medicines Lists
- National Health Insurance Scheme

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Table 1.2: Difference between Policy Advocacy and other related concepts

Concept	Target Audience	Objective	Measuring success
IEC/BCC	Population, Specific target community	Change a specific behaviours	Has the behaviour changed
Raising issue awareness	-Decision makers - Population -Stakeholders - High risk groups	Increased awareness, visibility, knowledge	Knowledge has increased
Fundraising	Donors Government Private sector Religious bodies NGOs	Raise money, resources	Money in the bank, resources mobilized
Community/ Social Mobilization	Community Members Specific sub group	-Increase involvement, participation -Sensitization/ Visibility	Levels of participation (Number involved)
Policy Advocacy	Decision Makers	Policy Change	Policy Change is adopted/enacted

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1.5 The Global NCD Landscape

1.5.1: Global Targets for NCD Reduction (Assets and Gaps)

1) **A 25% Relative Reduction in risks of premature Mortality from diabetes, cardiovascular diseases, cancer, or chronic respiratory diseases.**
   Assets: Strong political support
   Gaps: (1) No operational guideline
   (2) No baseline data to track progress

2) **80% Availability of the affordable basic technologies and essential medicines, including generics, required to treat major non communicable diseases in both public and private facilities.**
   Assets: (1) Policy document exist on essential medicines and technologies
   (2) Pharmacovigilance is emerging
   Gaps: (1) Most orthodox medicines are not produced locally thus restricting access and increasing cost
   (2)Lack of collaboration between alternative and orthodox medical practitioners and drug producers

3) **50% of eligible people receive drug therapy and Counseling (including glycaemic control) to prevent Heart Attacks and strokes.**
   Assets: Taskforce and policy on stroke available
   Gaps: (1) Activities by the taskforce has been largely curative and not preventive
   (2) Operational guidelines not available
   (3) No funding

4) **Halt the rise in Diabetes and Obesity**
   Assets: (1) Policy exist
   (2) Guidelines on diabetes exist
   (3) Strong network on diabetes
   Gaps: No guideline on obesity reduction

5) **A 25% relative reduction in the prevalence of raised blood pressure (hypertension); or contains the prevalence of raised blood pressure, according to national circumstances.**
   Assets: Strong network
   Gaps: Operational guideline not available

6) **A 30% Relative Reduction in prevalence of current Tobacco Use in persons aged 15+ years.**
   Assets: (1) Strong laws exist at some states at the sub national levels on tobacco use
   (2) Bill passed at the National Assembly but not signed by the Presidency.
   Gaps: National Bill not signed into law by the Presidency due to pressure from the industry

7) **A 30% relative reduction in mean population intake of salt/sodium.**
   Assets: (1) Policy on sodium reduction available
   (2) Agency for food control enforcement in place.
   Gaps: (1) Operational guidelines not in place
   (2) Inaction by the agency to enforce Salt reduction among food industries
   (3) Low awareness among industry on sodium reduction.

8) **A 10% relative reduction in prevalence of insufficient physical activity.**
   Assets: Policy adopted but no action
   Gaps: Enabling environment scarce

9) **At least 10% relative reduction in the harmful use of alcohol, as appropriate, within the national context.**
   Assets: Policy exist on alcohol use
   Gaps: (1) Implementation is just developing
   (2) Multi Sectoral Action is still weak.

1.6 NCD Policy Advocacy Strategy

Objective:

- **Identify the critical components of an advocacy strategy framework**

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Table 1.3: 10 Parts of a Policy Advocacy Strategy

Part 1	**Advocacy Issue**
Part 2	**Advocacy Goal**
Part 3	**Decision-makers and Influencers**
Part 4	**Decision-makers' Key Interests**
Part 5	**Advocacy Opposition and Obstacles**
Part 6	**Advocacy Assets and Gaps**
Part 7	**Advocacy Partners**
Part 8	**Advocacy Tactics**
Part 9	**Advocacy Messages**
Part 10	**Plan to Measure Success**

1.6.1: Part 1: Advocacy Issue

Objectives:

- **Identify qualities of a good issue for advocacy**
- **Evaluate potential issues for advocacy**

A good issue for policy advocacy is:

- A current objective or natural outgrowth of your program's work.
- Based on evidence.
- Readily improved with a policy change.
- Reasonably attainable in 3-5 years.
- Suitably specific.

1.6.1 (A): Criteria for prioritizing advocacy issues

- Specificity and clarity.
- Amount of evidence to prove the problem.
- Potential for partnership to address the issue.
- Amount of political will to address the issue.
- Organization has unique experience and expertise to contribute to addressing the issue.
- Availability of resources (time, funds, influence) to address the issue.
- Risk to your organization to address the issue.
- Likelihood the policy change will significantly impact the problem.
- Feasibility of success in 3-5 years.

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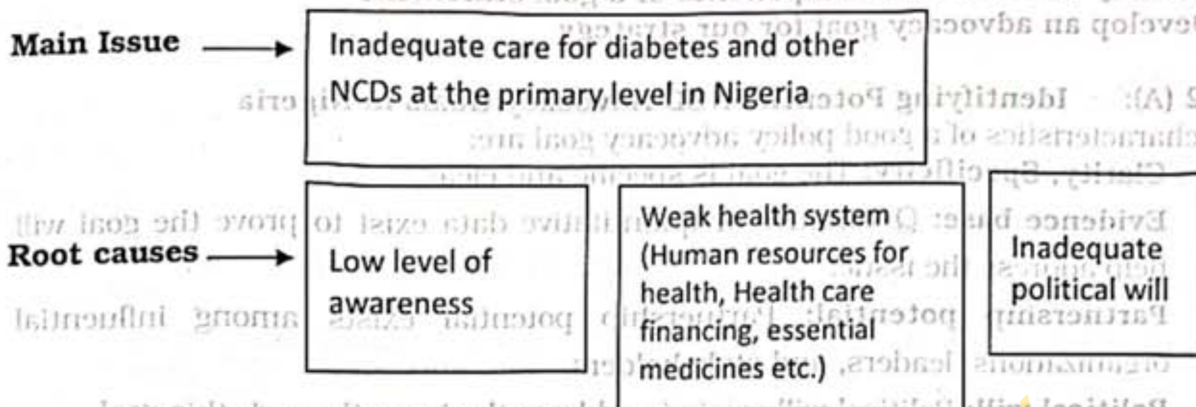
Fig. 1.1 Identifying Potential NCD Advocacy Issues in Nigeria



1.6.1 (B): Potential Issues for Advocacy:

- Provision of Integrated Diabetes/NCD Care at Primary Level in Nigeria.
- Establishing NCD Clinics at the Primary Health Care Level.
- Awareness creation especially during special days of DM etc.
- Strengthening of the Health System (funding, infrastructure, capacity building etc).
- Provision of Diabetes Care at the Primary Level in Nigeria.
- Mobilization for increased Political Will.
- National NCD Survey **(this is long overdue for repeat after the 1992 survey)**

Table 1.4: Choosing an Advocacy Issue

CRITERIA	ISSUE 1: Provision of integrated diabetes/NCD care into the primary health care in Nigeria	ISSUE 2: Establishing NCD Clinics at the primary health care level
Clarity, Specificity	High	Medium
Evidence base	High	Low
Partnership potential	High	Low
Political will	High	Low
Unique expertise	Low	Low
Available resources	Medium	Low
Little to no risks	Medium	High
Significant impact if addressed	High	High
Success feasible in 3- 5 years	High	Low

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1.6.2: Part 2 – Advocacy Goal

Objectives:

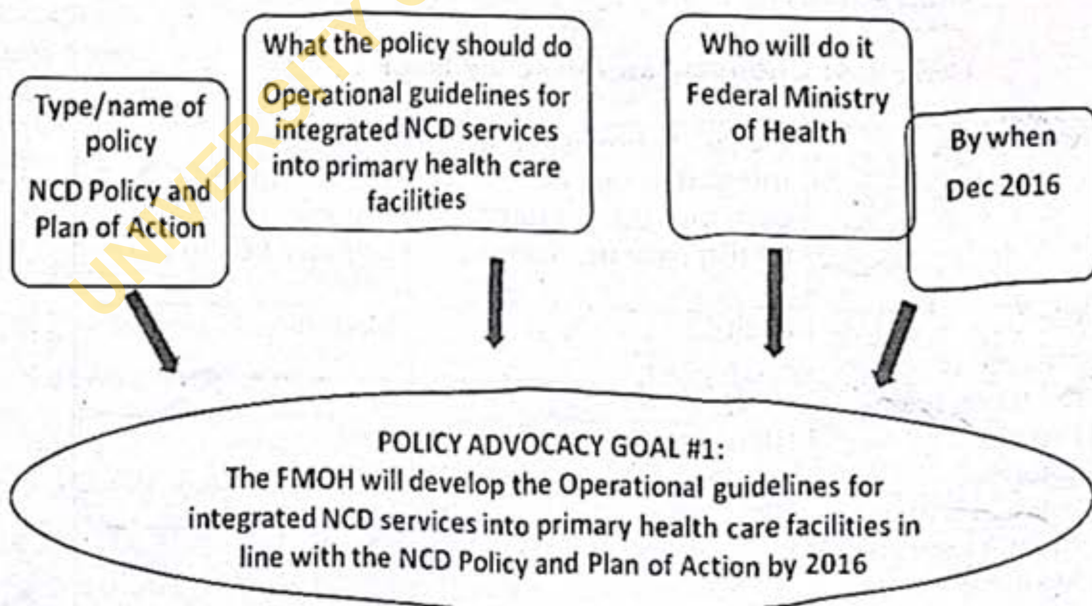
- **Identify the essential components of a goal statement**
- **Develop an advocacy goal for our strategy**

1.6.2 (A): Identifying Potential NCD Advocacy Goals in Nigeria

The characteristics of a good policy advocacy goal are:

- **Clarity, Specificity:** The goal is specific and clear.
- **Evidence base:** Qualitative or quantitative data exist to prove the goal will help address the issue.
- **Partnership potential:** Partnership potential exists among influential organizations, leaders, and stakeholders.
- **Political will:** Political will exists to address the issue through this goal.
- **Unique expertise:** Our organization has a unique experience or expertise to contribute.
- **Available resources**
- **Little to no risk:** This goal carries no risk for our country.
- **Significant impact if addressed:** The policy goal is likely to have significant impact on the issue.
- **Success feasible in 3-5 years**

Figure 1.2: Identifying Potential NCD Advocacy Goals in Nigeria



1.6.3: Part 3: Decision-makers and Influencers

Objectives:

- **Identify key decision-makers and influencers**
- **Target advocacy goals to the appropriate decision-makers**
- **Identify pathways to reach key decision-makers**

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1.6.3 (A) Decision-makers
Definition: People with the formal power or authority to make the desired policy change and/or their key advisors or staff.

1.6.3 (B) Key Influencers
Definition: People or groups who can have a compelling force on the actions, opinions, or behaviour of decision-makers.

1.6.4 Part 4: Decision makers' key interests
Objectives:

- **Evaluate the awareness and position of the key decision-makers on our issues**
- **Identify decision-makers' key interests as a means to persuade them on the issue**

They include:

1. Future Election(s)
2. Political Reputation
3. Family/Personal History
4. International Guidelines/Norms
5. Funding/Cost effectiveness
6. Legacy
7. Public Image/visibility
8. Impact on the problem
9. Pressure Groups
10. Personal Affiliations
11. Cultural/Traditional Norms
12. Religious values
13. Economic concerns

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1.6.4 (A) Decision-makers' awareness of an issue

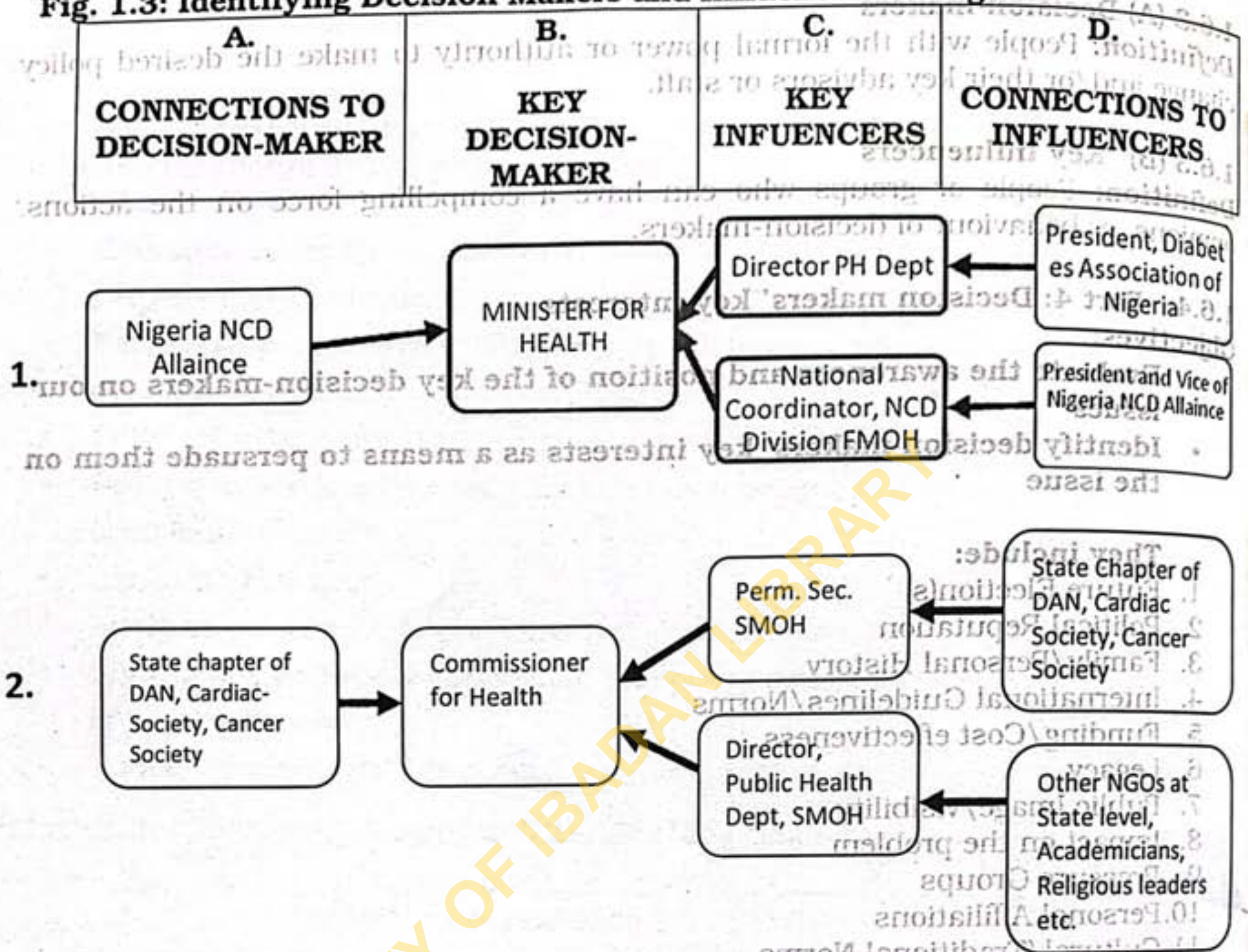
- **Unaware:** not familiar with your issue.
- **Aware of the issue, but mostly uninformed:** has heard of your issue, but may not have much information.
- **Aware of the issue, but inaccurately informed:** has heard of the issue, but may have information that is outdated or inaccurate.
- **Accurately informed of the issue:** aware and correctly informed of your issue.

1.6.4 (B) Decision-makers' position on an issue

- **Visible and vocal champion:** actively working or speaking out on behalf of your issue to make a change. You don't need to spend time trying to persuade these individuals.
- **Supportive:** won't oppose your issue but also not likely to be an active, visible promoter either.
- **Opposed:** clearly committed against your viewpoint. You are not likely to change their mind.
- **Undecided:** doesn't yet have an opinion.

Fig. 1.3: Identifying Decision Makers and Influencers in Nigeria

A. CONNECTIONS TO DECISION-MAKER	B. KEY DECISION-MAKER	C. KEY INFUENCERS	D. CONNECTIONS TO INFLUENCERS



Key:
PH Dept: *Public Health Department, Federal Ministry of Health*
DAN: *Diabetes Association of Nigeria*
SMOH: *State Ministry of Health*

NCDs Decision makers in Nigeria

1. *The President of the Federal Republic*
2. *The Minister of Health*
3. *The Governor/Mayor*
4. *The National Assembly*
5. *The Permanent Secretaries*
6. *The Director of Public Health*
7. *NCD National Coordinator*
8. *The Chairman of NCD National Expert Committee*
9. *The Commissioners of Health*

1.6.5: Part 5 – Advocacy Opposition and Obstacles

Objective:

- **Identify mechanisms for addressing opposition to our policy goals.**

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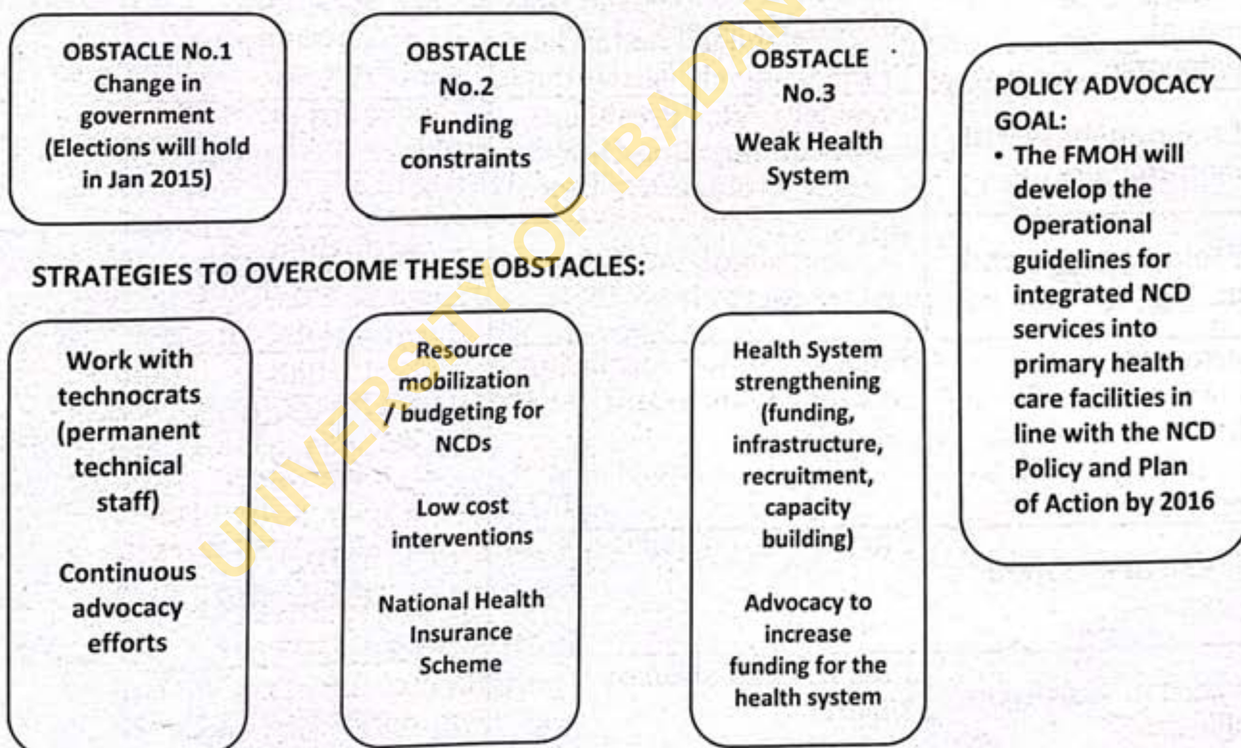
1.6.5 (A) Analyzing your/our opposition

- Know the opposition and their motives.
- Identify their tactics and arguments.
- Assess the risks and benefits of confronting them.
- Mitigate their influence.
- Pick the right partnerships.

1.6.5 (B) Obstacles for Advocacy

- Change in government Decision Makers
- Lack of Resources/Funding constraints
- Lack of Political will
- Political weakness
- Insufficient evidence-base
- Bureaucracy
- Competing priorities
- Conflict of interests

Fig. 1.4: Overcoming Obstacles



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1.6.6: Part 6: Advocacy Assets and Gaps

Objective:

- **Determine the types of skills, expertise and resources needed for advocacy efforts**

1.6.6 (A) Skills, Expertise and Resources

a) Communication skills
   - Media
   - Written

b) Mobilization

c) Leadership on the issue

d) Funds
e) Technical knowledge
f) Networking/Relationship
g) Management/Planning
h) Evaluation skills
i) Conflict Resolution/Negotiation
j) Knowledge context/environment

1.6.6 (B) Taking Inventory of Advocacy Assets and Gaps

Table 1.5: Taking Inventory of Advocacy Assets and Gaps

A. Skills, Expertise, and Resources	**B. Specific individuals or materials** *(Names of people, depts., etc.)*	**C. How much of this resource is available for advocacy?**
Staff who are available to work on advocacy	Officers of the Association,	☒ **High** ☐ Medium ☐ Low
Staff who can be influential spokespeople	Officers of the Association, Secretary General, Legal Adviser	☒ **High** ☐ Medium ☐ Low
Staff relationships with decision-makers	President, Vice Presidents and Secretary Gen DAN	☐ High ☒ **Medium** ☐ Low
Staff relationships with media	FRCN	☐ High ☒ **Medium** ☐ Low
Expertise in communications & media relations (e.g., policy briefs, letters to the editor)	PRO, Legal Adviser, Editor in Chief, Oluwasanu	☐ High ☒ **Medium** ☐ Low
Expertise in coalition-building	PRO	☐ High ☒ **Medium** ☐ Low
Expertise in grassroots mobilization	PRO in each state of Nigeria	☐ High ☒ **Medium** ☐ Low
Expertise in web-based communications	Web master/Manager	☒ **High** ☐ Medium ☐ Low
Expertise in policy analysis and/or policy development	Officers of DAN, Advocacy Advisor (Oluwasanu)	☐ High ☒ **Medium** ☐ Low
Familiarity with the policy process	President, VP of DAN	☒ **High** ☐ Medium ☐ Low

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Evidence to support the policy solution	Scientific arm of DAN headed by Professional Officers	☐High ☐ **Medium** ☐ Low
Funding (current or likely)	Foundations / Corporate bodies	☐High ☐ Medium ☐ **Low**

1.6.7: Part 7: Advocacy Partners

3 greatest ASSETS:
- Staff who are available to work on advocacy
- Staff who can be influential spokespersons
- Expertise in web-based communications

3 greatest GAPS:
- Funding
- Expertise in communications & media relations (e.g., policy briefs, letters to the editor)

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Objectives
- **Assess qualities of a strategic partnership**
- **Identify different types of collaboration**

1.6.7 (A): Strategic reasons to partner
- Adds to the number of organizations actively working on the issue.
- Brings together new constituents demonstrating wide-scale and diverse support for the issue.
- Demonstrates benefit to multiple sectors of importance.
- Improves ability to reach and persuade a wider set of policy-makers and influencers.
- Helps to mitigate the influence of the opposition.
- Yields additional expertise, skills, and resources (complimentary roles).
- Helps fill an organization's advocacy gaps.

1.6.7 (B): Effective partnerships

Qualities of Ideal partners:
- Bring resources to the advocacy effort.
- Are generally easy to work with.
- Should be aligned with your advocacy goal.
- Bring few risks.

1.6.7 (C): Types of collaboration
- Information and data sharing
- Developing common messages
- Mutual consultation
- Joint planning and strategizing
- Coalitions and alliances

1.6.7 (D): Advantages of coalitions
- Significantly enlarges base of support.
- Makes the issue seem more legitimate when there is a mass of interest.
- Gives partners courage (strength in numbers).
- Maximizes resources by pooling them together and delegating work throughout the coalition.
- Fosters a holistic, integrated viewpoint on the issue.

1.6.7 (E) Disadvantages of coalitions

- It is harder to reach consensus on the strategy and how to move it forward.
- Working to achieve consensus could delay the adoption and implementation of your advocacy strategy.
- Trying to satisfy all partnership members could dilute the advocacy impact.
- You may not always get credit for your hard work—while others may get credited for no work.
- Power is not always equally distributed. Larger or richer organizations may have more say in decisions.

Table 1.6: Selecting Advocacy Partners
Main Advocacy Organization: Diabetes Association of Nigeria (DAN)

	Potential Partner: *Olusegun Obasanjo Foundation*	**Potential Partner:** *Director, Public Health Dept. FMOH*	**Potential Partner:** *FRCN/NTA*	**Potential Partner:** *Sanofi Group etc.*	**Potential Partner:**
Strategic Reasons to Partner	*Bring resources to the advocacy effort*	*Helps to mitigate the influence of the opposition*	*Media Communication*	*Funding & Technical expertise*	
Potential Risks	*Undue influence*	*Busy schedule*	*Their services not always free*	*Platform for product promotion*	
Type of Collaboration*	*Joint planning & strategizing*	*Mutual consultation*	*Developing common messages*	*Joint planning & strategizing*	

Remember that types of collaboration include: Information and data sharing, developing common messages, Mutual consultation, Joint planning and strategizing, and Coalition/alliance.

1.6.8: Part 8: Advocacy Tactics

Objectives

- **Design objectives to reach an advocacy goal**
- **Determine advocacy activities and tactics**
- **Develop an advocacy work plan**

1.6.8 (A): Advocacy Objective

- Desired accomplishment or outcome that will contribute to the overall goal.
- A step towards your advocacy goal.
- The objective is what you want someone else to do.

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1.6.8 (B): Elements of an advocacy objective

1. **WHO:** which specific decision-maker or key stakeholder you want to take action.
2. **WHAT:** what action the decision-maker or key stakeholder should take.
3. **WHEN:** a timeframe for the action to occur, often six months to three years depending on the particular advocacy effort.

1.6.8 (C): Acronym for Objectives (SMART)
Advocacy objectives should also be SMART:

- **S**pecific
- **M**easurable
- **A**chievable
- **R**elevant
- **T**ime-based

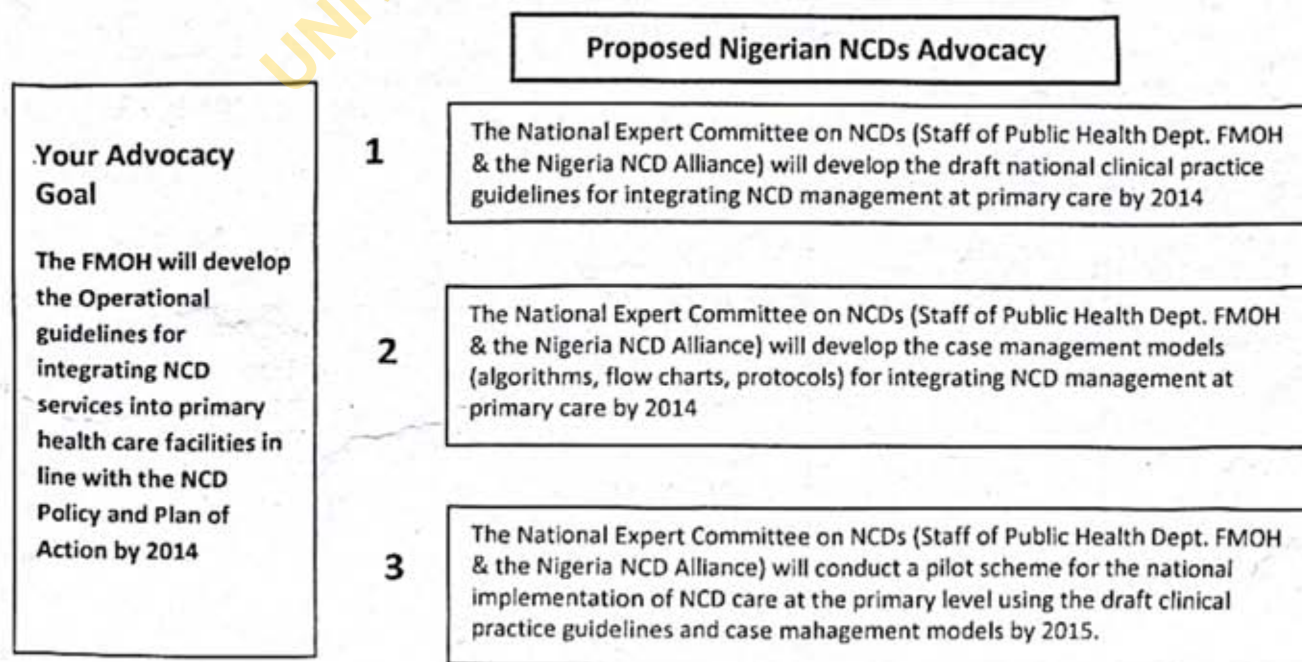
1.6.8 (D): Selecting advocacy activities

- Will the activity address our decision-makers' key interests?
- Will the activities attract the interest of our decision-makers and/or their influencers?
- Will the activity lessen the influence of any opposing groups or counter their messages?
- Do we have the expertise and resources to carry out the activity?
- What upcoming events, significant dates, or government decisions could be opportunities for mobilization and advocacy?
- Does the activity pose any risk to our organization?

1.6.8 (E): Advocacy Activities:

- Generating data/Evidence for advocacy
- Media/Communication
- Materials/Publications (books, workshop proceedings etc.)
- Events/Meetings

Fig. 1.5: Proposed Nigerian NCDs Advocacy Objectives



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1.6.8 (F): Advocacy resources

- **Staff:** What type and how much staff time and expertise will be needed to carry out your desired activities?
- **Partners:** Will you need the expertise or resources of partners to successfully implement an activity?
- **Costs:** What are the costs associated with these activities?
- **Timeline:** When should the activities be conducted? How long will they take? Is there a particular time that they should take place? (e.g., to coincide with a day of observance or political process)

1.6.8 (G): Work Plan

The components of a Work Plan are:

1. Objectives
2. Time frame
3. Activities
4. Goals and results
5. Indicators
6. Responsible person
7. Cost (budget)

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1.6.8 (H): Developing a Work Plan

Table 1.7

OBJECTIVE No. 1: The National Expert Committee on NCDs (Staff of Public Health Dept, FMOH & the Nigeria NCD Alliance) will develop the draft national clinical practice guidelines (NCPG) for integrating NCD management at primary care by 2014				
A. Activity	**B. Responsible staff**	**C. Partner(s)**	**D. Cost**	**E. Timeline**
Meeting with the technical staff of the NCD Division to discuss the drafting of the NCPG	Officers of NCD Alliance	SANOFI Groups, Novartis, OOF	Transportation, accommodation, per diem & publications	July 2014
Meeting of NCD Alliance to draft the NCPG (Diabetes, Hypertension, Cancer, Asthma etc)	Officers of NCD Alliance	SANOFI Groups, Novartis, OOF	Transportation, accommodation, per diem & publications	August 2014
Participate in the meeting of National Expert Committee on NCDs to review the draft of the NCPG (Diabetes, Hypertension, Cancer, Asthma etc) developed by NCD Alliance	President DAN	SANOFI Groups, Novartis, OOF	Transportation, accommodation, per diem & publications	September2 014

Table 1.8

OBJECTIVE No. 2 The National Expert Committee on NCDs (Staff of Public Health Dept, FMOH & the Nigeria NCD Alliance) will develop the case management models (algorithms, flow charts, protocols) for integrating NCD management at primary care by 2015				
A. Activity	**B. Responsible staff**	**C. Partner(s)**	**D. Cost**	**E. Timeline**
Meeting of NCD Alliance to draft the case management models (algorithms, flow charts, protocols)	Officers of NCD Alliance	SANOFI Groups, Novartis, OOF etc.	Transportation, accommodation, per diem & publications	August, 2014
Participate in the meeting of National Expert Committee on NCDs to review the draft of the case management models (algorithms, flow charts, protocols) developed by NCD Alliance	President DAN	SANOFI Groups, Novartis, OOF etc.	Transportation, accommodation, per diem & publications	September, 2014

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Table 1.9:

OBJECTIVE No. 3: The National Expert Committee on NCDs (Staff of Public Health Dept, FMOH & the Nigeria NCD Alliance) will conduct a pilot scheme for the national implementation of NCD care at the primary level using the draft clinical practice guidelines and case management models by 2015				
A. Activity	**B. Responsible staff**	**C. Partner(s)**	**D. Cost**	**E. Timeline**
Meeting with the technical staff of the NCD Division of FMOH and SMOH to discuss the pilot-scheme of implementation of NCD care at the primary level using the NCPG and Case Management Models	Officers of NCD Alliance	SANOFI Groups, Novartis, OOF	Transportation, accommodation, per diem & publications	January 2015

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1.6.9: Part 9: Advocacy Messages

Objectives

- Craft targeted and effective advocacy messages to influence decision-makers.
- Evaluate potential messengers for advocacy communications.

1.6.9 (A): Qualities of a compelling message

- Brief – Decision makers are busy, so make your message brief.
- Focused
- Solution-oriented
- Supported by evidence
- Targets key interests of the decision-maker
- Uses non-technical language
- Optimistic and hopeful
- Has a clear request

1.6.9 (B): Four parts of an advocacy message

1. What is the issue?
2. Why should the decision-maker care about the issue?
3. What is the proposed solution and how will it impact the problem?
4. What do you want the decision-maker to specifically do following your interaction?

1.6.9 (C): Qualities of Ideal messengers

- Messengers should be diverse.
- Messengers should represent the appropriate level of seniority.
- Messengers should be effective public speakers.
- Messengers should support your advocacy goal.

1.6.9 (D): Advocacy Messengers in Nigeria:

Examples are:

1. Well known experts
2. Celebrities
3. Academicians/Researchers
4. Religious/Traditional Leaders
5. Spouse/Friend/Peer
6. Patients
7. Affected persons
8. Industry Leaders
9. Journalists
10. Activists
11. Politicians

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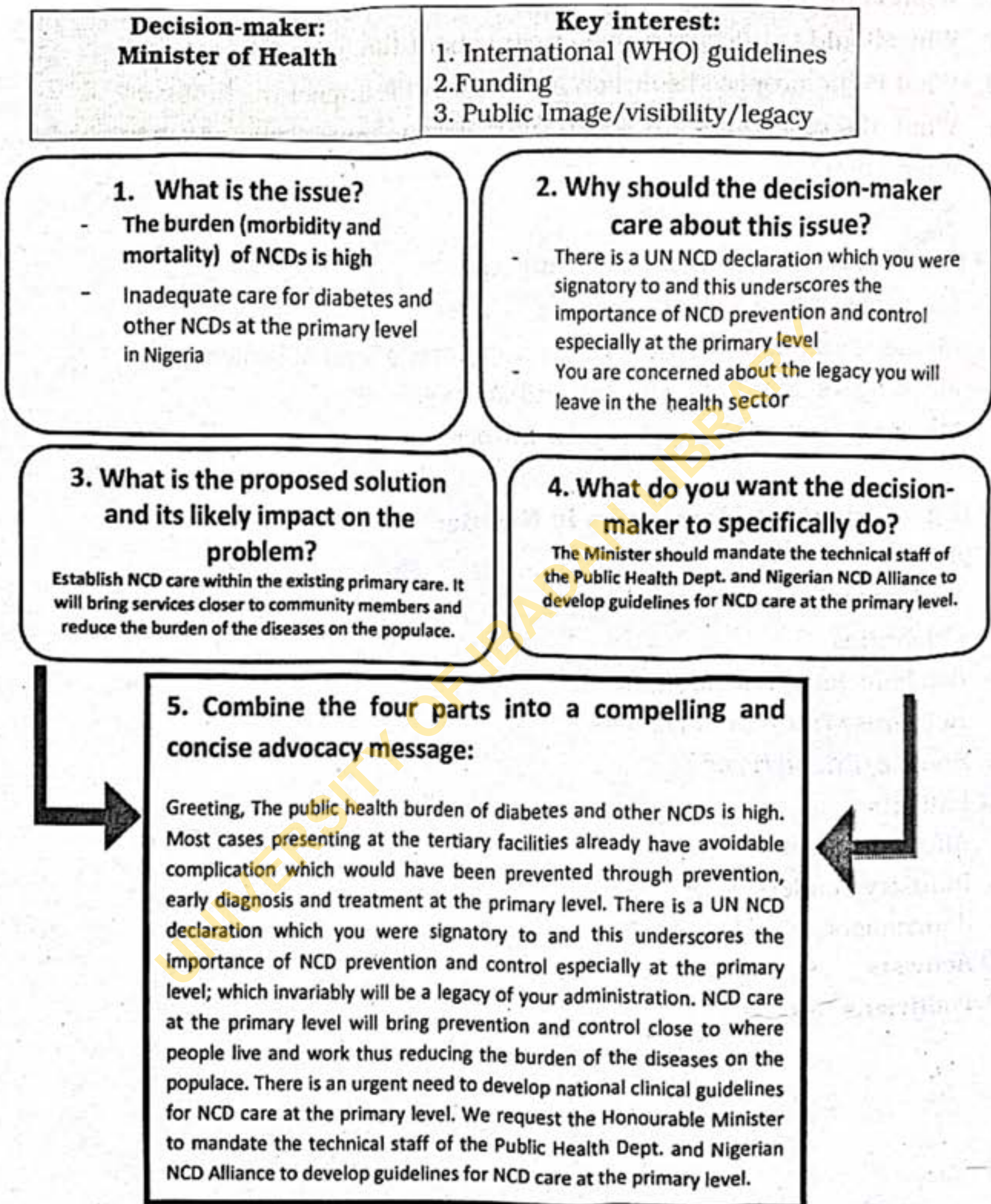
Fig. 1.6: Crafting Advocacy Message



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1.6.10: Part 10: Plan to Measure Success

Objectives

- Distinguish between output and outcome indicators
- Develop indicators to help measure progress towards achieving an advocacy goal

1.6.10 (A): Why do we measure Advocacy?

- To keep us on track
- To ensure that we are making progress (are we seeing results?)
- Are we seeing results
- Collate lessons learned
- Make revisions to strategies of required
- Accountability to donors
- Resources are finite

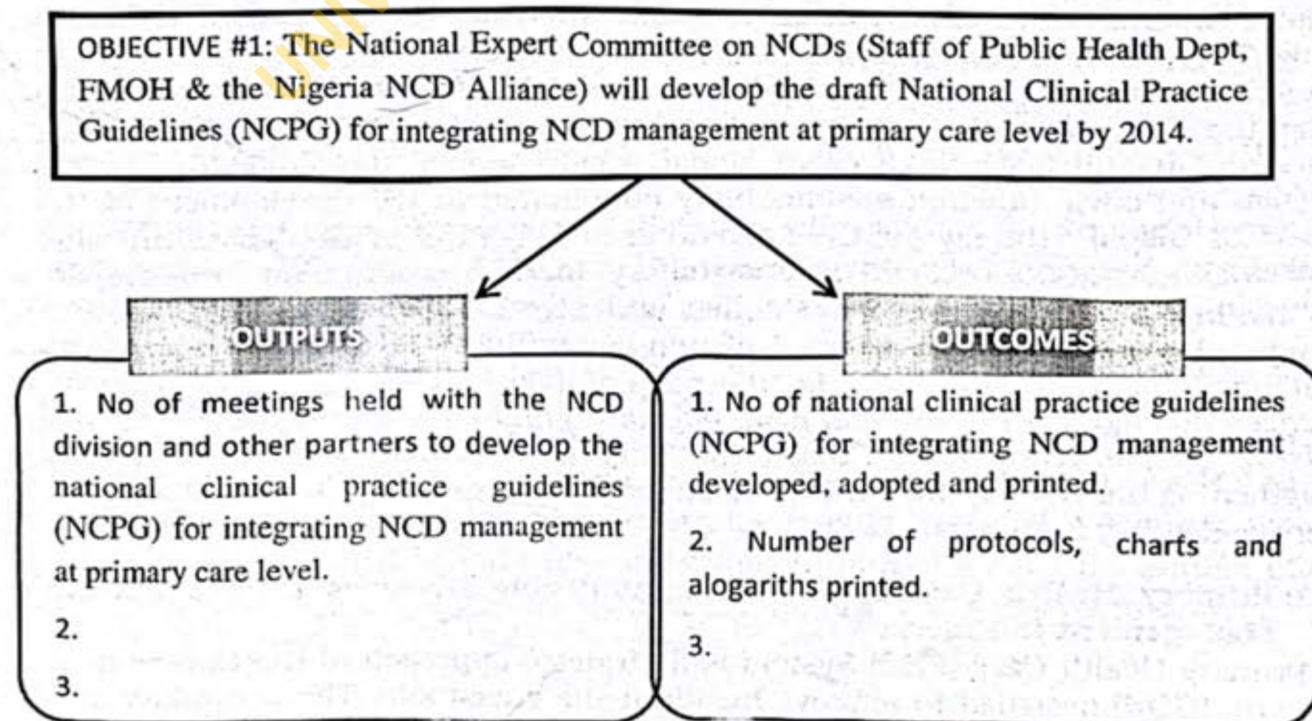
1.6.10 (B): Outputs

- Evidence that the activity actually happened.
- Generally quantitative. (Larger numbers are not always better. For example, one meeting might be enough to reach the key decision-maker.)
- Measure of productivity. **For example:**
  - Meetings with decision-makers.
  - Press releases issued.
  - Partners attending coalition meetings.

1.6.10 (C): Outcomes

- Effects or changes seen as a result of the activity.
- Actions taken by decision-makers or others.
- Quantitative or qualitative.
- Measure of effectiveness. **For example:**
  - Increased government funding allocations.
  - Changes to laws, regulations, policies, and plans.
  - Public statements of support from decision-makers.
  - Mentions of the issue in media outlets.
  - Establishment of NCD Clinics within the existing PHC services

Fig. 1.7: Planning to Measure Success



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1.7: DISCUSSION

1.7.1: Integrated Non communicable diseases care at the Primary level in Nigeria

A Call for Action

Nigeria, Africa's most populous country is experiencing a rapid epidemiological transition characterized by an escalating, concomitant burden of communicable and non communicable diseases and a plethora of other health challenges. The country contributes significantly to the global burden of non communicable diseases (NCDs) with an estimated 792,600 NCDs related deaths in 2008 resulting in adverse social, economic, and health outcomes (WHO, 2010). According to the International Diabetes Federation, about four million Nigerians are diabetic translating to a national prevalence of 4.5% to 5% (International Diabetes Federation, 2013). Akinboboye et al, (2003) reported that Cardiovascular Diseases account for one tenth of deaths in Nigeria. A review study by Ogah et al, (2012) on hypertension in Nigeria over the past five decades found that the overall prevalence ranges from 8%-46.4% depending on the study target population, type of measurement and cut-off value used for defining hypertension (Ogah et al, 2012). In addition; the annual new cases of cancer is 102,100 and the 5-year prevalent cases is 232,000 (IARC and WHO, 2012). These data underscores the huge burden of NCDs in Nigeria and these are attributed to the high estimated prevalence of biomarkers and determinants of some of the key NCDs. The WHO 2010 Global Status Report on NCDs documented the prevalence of biomarkers of NCDs in Nigeria as follow: raised blood pressure (42.8%); raised blood glucose (8.5%); raised cholesterol (16.1%) overweight and obesity, 26.8% and 6.5% respectively (WHO, 2010). The high mortality figures of Non-communicable diseases, their biomarkers and risk factors are issues of grave concern and unless addressed; the burden will continue to increase.

Several lifestyle risk factors and practices deeply rooted in globalization, urbanization and culture have been found to increase the burden of NCDs in Nigeria. These include unhealthy diets specifically the consumption of diets high in sodium, unsaturated fats and low in dietary fiber; physical inactivity, tobacco and alcohol use. The increasing burden of Non-communicable diseases and their risk factors and its intricate linkages to global socioeconomic development, poverty reduction and environmental sustainability culminated in the development of the 2008-2013 Global Strategy for the Prevention and Control of Non-communicable Diseases (WHO, 2008). Nigeria is a signatory to this action plan and the 2nd objective highlights the need to establish and strengthen national policies and plans for the prevention and control of non-communicable diseases. One of the specific actions for this objective is "*the reorientation and strengthening of health systems, enabling them to respond more effectively and equitably to the health-care needs of people with chronic diseases*" This underscores the importance of strengthening the primary health care considering its strategic role and importance to service delivery in Nigeria.

1.7.2: Primary Health Care for Non-Communicable Diseases Care and Case Management in Nigeria

The Primary Health Care (PHC) System is a strategic approach of the Government of Nigeria (GON) designed to improve health at the grassroots. The secondary and tertiary level health care is expected to complement the services provided at the

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PHC, provide more specialized care as well as serve as a referral point. However due to the weak capacities of the health workers and poor infrastructural facilities, the quality of services provided has been inadequate and poor (FMOH, 2010).

The strengthening of the primary health system is crucial to NCD prevention, screening and treatment because these are chronic diseases which require long-term, patient-centered, community based and sustainable care. Such care can only be delivered equitably and sustainable through the primary health care (PHC). Cost effective approaches, technologies and interventions to reduce the burden of NCDs in Nigeria and other low middle income countries are available but a persistent challenge is the weak health system resulting in substantive gaps in implementation particularly in Low Middle Income Countries (WHO, 2010 PEN). Furthermore, most cases presenting at the tertiary facilities already have avoidable complications which would have been prevented through prevention, early diagnosis and treatment at the primary level (Chinenye et al, 2014). It is thus imperative to bring NCD care, prevention and control close to where people live and work thus reducing the burden of the diseases on the populace.

The Nigerian National Strategic Health Development Plan (2010-2015) is the overarching framework for health development in Nigeria. The 36 State Governors and the FCT Minister are signatories to this document and they affirmed their commitment to significantly improve the health status of Nigerians through the development of a strengthened and sustainable primary health care delivery system (FMOH, 2010). Thus; there is a high political priority for strengthening the Nigerian Primary Health Care which is central to NCD reduction. The recently developed Nigeria National Policy and Strategic Plan of Action on Non-Communicable Diseases (NCDs) aim to achieve its goals and objectives through several strategic activities, one of which is the '*Integration of NCDs management into primary health care services*' (Chinenye et al, 2014). A sub activity for this objective as outlined in the NCD Strategic Plan of Action is the development and dissemination of operational guidelines for NCD management to appropriate health workers to prevent complications among patients. The plan further states that, *the FMOH shall organize seminars and workshops for Doctors, Nurses and other relevant health workers on the guidelines and update them regularly.* According to the WHO Package of Essential Non-communicable Diseases Interventions for Primary Health Care in Low Resource Settings (WHO, 2010), there is little guidance on integrated approaches to NCD case management at the primary care level. Existing specialized and hospital-oriented guidelines on specific diseases are difficult to apply to primary care in resource constrained settings particularly in scenarios with non physician health workers (Abegunde D et al, 2007; Thorogood M et al, 2007; Carrin G et al, 2008). Furthermore, such guidelines fail to take cognizance of the role and conditions of Primary care in resource-constrained settings and this justifies the need to develop an integrated guideline and clinical protocol for the integration of NCD care, interventions and case management at the primary care level in Nigeria.

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The WHO *Package of Essential Noncommunicable (PEN) Disease Interventions for Primary Health Care in Low-Resource Settings* identified priority conditions that should be addressed at the primary health level and include diabetes, cardiovascular disease, chronic respiratory disease and cancer. The selection was based on the following criteria:

- They are major public health issues that contribute the most to the global NCD burden.
- Evidence-based interventions are available for addressing the condition.
- These conditions share behavioural risk factors: tobacco use, unhealthy diet physical inactivity and harmful use of alcohol.
- They are the focus of the Global NCD Action Plan.

A minimum set of interventions for the outlined health conditions was defined in the WHO Package of Essential NCD (WHO PEN) (see table 1.10). These interventions are those that are feasible for implementation even in low-resource settings with a modest increase in investment and can be delivered by primary care physicians and non-physician health workers in primary care. If effectively integrated into primary care they reduce significantly, the morbidity and mortality associated with the major NCDs.

Table 1.10: Essential NCD interventions for primary care

Essential Interventions for primary care (category of evidence)*
Type 1 Diabetes • Daily insulin injections (level 1)
Type 2 Diabetes: • Oral hypoglycemic agents for type 2 diabetes, if glycemic targets are not achieved with modification of diet, maintenance of a healthy body weight and regular physical activity (level 1) • Metformin as initial drug in overweight patients (level 1) and non overweight (level 4) • Other classes of antihyperglycemic agents, added to metformin if glycemic targets are not met (level 3) • Reduction of cardiovascular risk for those with diabetes and 10 year cardiovascular risk >20% with aspirin, ACEIs, ARBs and statins (Level 1)
Prevention of foot complications through examination and monitoring (Level 3) • Regular (3-6 months) visual inspection and examination of patients' feet by trained personnel for the detection of risk factors for ulceration (assessment of foot sensation, palpation of foot pulses, inspection for any foot deformity, inspection of footwear) and referral as appropriate
Prevention of onset and delay in progression of chronic kidney disease: • Optimal glycemic control in people with type 1 or 2 diabetes (Level 1) • ACEIs or ARBs for persistent albuminuria (Level 1)
Prevention of onset and delay of progression of diabetic retinopathy: • Referral for screening and evaluation for laser treatment for diabetic retinopathy (Level 1) • Optimal glycemic control (Level 1) and blood pressure control (Level 1)
Prevention of onset and progression of neuropathy: • Optimal glycemic control (level 1)

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Primary prevention of heart attacks and strokes

- Tobacco cessation (level 1), Regular Physical activity 30 minutes a day (level 1), Reduced intake of Salt <5g per day (level 1), Fruits and vegetable at least 400g per day (Level 2)
- Aspirin, statins and antihypertensive for people with 10 year cardiovascular risk >30% (Level 1)
- Antihypertensives for people with blood pressure ≥160/100
- Antihypertensives for people with persistent blood pressure ≥140/90 and 10 year cardiovascular risk>20% and unable to lower blood pressure through lifestyle measures (Level 1)

Acute myocardial infarction:

- Aspirin (Level 1)

Secondary prevention (post myocardial infarction):

- Tobacco cessation (Level 1), healthy diet and regular physical activity (Level 2)
- Aspirin, antihypertensive (low dose thiazide, ACEI, ARB), and statin (Level 1)

Secondary Prevention (post stroke):

- Tobacco cessation, healthy diet and regular physical activity (Level 2)
- Aspirin, antihypertensive (low dose thiazide, ACEI, ARB) and statin (level 1)

Secondary Prevention (Rheumatic heart disease):

- Regular administration of antibiotics to prevent streptococcal pharyngitis and recurrent acute rheumatic fever (level 1)

Bronchial asthma:

- Relief of symptoms: Oral or inhaled short-acting β2 agonists (Level 1)
- Inhaled steroids for moderate / severe asthma to improve lung function, reduce asthma mortality and frequency and severity of exacerbations (Level 1)

Prevent exacerbation of COPD and disease progression:

- Smoking cessation in COPD patients (Level 1)

Relief of breathlessness and improvement in exercise tolerance

- **Short-acting bronchodilators (Level 2)**

Improvement of lung function

- Inhaled corticosteroids when FEV1<50% predicted (Level 2)

Long-acting bronchodilator for patients who remain symptomatic despite treatment with short-acting bronchodilators (Level 1)

Cancer:

- Identify presenting features of cancer and refer to next level for confirmation of diagnosis (Level 3)

Category of evidence: Level 1= meta-analysis or systematic reviews of randomized controlled trials , Level 2= Case control studies or cohort studies or systematic reviews of such studies, Level 3= Case reports and case series, Level 4 = Expert Opinion

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1.7.3: Advocacy focus for NCD Care and Case Management in Nigeria

In tandem with this strategic thrust, a team of Nigerians - Dr. Sunny Chinenye (*President, Diabetes Association of Nigeria, Lecturer and Consultant Endocrinologist-University of Port Harcourt, Nigeria*), Prof TO Johnson (*Patron and Ex President, Diabetes Association of Nigeria*) and Moji Oluwasanu (*Lecturer, Nutritionist and Health Promotion Specialist, Faculty of Public Health, University of Ibadan*) participated at a pre congress workshop on Policy Advocacy for Diabetes and Other Non-Communicable Diseases which was held during the 2nd African Diabetes Congress in Cameroon in 2014. The Nigeria country group worked together to develop an advocacy framework and the goal is that, '***the Federal Ministry of Health will develop the Operational guidelines for integrated NCD services into primary health care facilities in line with the NCD Policy and Plan of Action by 2015***'. This advocacy framework is expected to be implemented within the next 1 – 2 years spearheaded by the Nigerian NCD Alliance (Diabetes Association of Nigeria, Heart Federation, Cancer Society and Thoracic Society).

The team adopted a participatory, evidence based approach in selecting a key problem among the plethora of health challenges linked to NCD prevention, care and management in Nigeria. The core problem identified is the poor quality and inequitable care for diabetes and other NCDs at the primary level in Nigeria. Specific root causes included; the inadequate political will and funding, the weak health system -*low human resources for health, weak health care financing, lack of essential drugs and technologies, lack of operational guidelines for NCD care and management at the primary level etc.* Of these challenges, the development of operational guidelines for NCD care and management at the primary level was identified as an important step for the provision of NCD care at the primary health level.

Key Decision Makers and stakeholders to achieve this objective include, the Minister and Commissioners of Health in the 36 states of Nigeria including the FCT, Permanent Secretaries of Health, Director Public Health, Staff of the NCD Division, Federal Ministry of Health, Finance, National Primary Health Care Development Agency, professional associations such as the Diabetes Association of Nigeria, Cardiac Society, Hypertension, Cancer and Thoracic Society etc, NCD Alliance, Academic research groups, various cadres of health professionals especially those at the primary level, Non-governmental organizations, Media groups, Religious leaders, patient groups, Corporate Organizations including pharmaceutical companies. Potential barriers and strategies to achieving this policy goal are outlined in Figure 1.8 and the work plan, timeline and resources for achieving the policy objectives are outlined in Table 1.11.

1.7.4: Further actions

The development of the operational guidelines, case management models (algorithms, flow charts, protocols) require a collective effort of staff of the Ministry of Health, National Primary Health Care Development Agency and professional associations such as the Diabetes Association of Nigeria, Cardiac Society, Hypertension, Cancer and Thoracic Society and Academic group. The Diabetes Association of Nigeria (DAN) in 2013 developed and published the Clinical Practice Guidelines for Diabetes Management in Nigeria in collaboration with partners such

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as the Olusegun Obasanjo Foundation, Nestle Nigeria PLC, Bayer HealthCare, Novartis, Glaxo SmithKline, Megalife Sciences, NovoNordisk, SANOFI etc. The Clinical guideline was developed for the use of medical students, post graduates and other health practitioners in Nigeria. However; the case management models (algorithms, flow charts, protocols) have not been developed. Other professional groups (i.e. Hypertension, COPD, Cancer etc) are at varying stages in the development of their operational guidelines and all these have to be finalized to achieve the stated policy goal.

1.7.5: Recommendations

Non-communicable diseases prevention and management services at the primary level are important for the early detection and management of the diseases and consequently the reduction of the morbidity and mortality rates. Critical to this is the strengthening of the health system in Nigeria. Policy makers at all tiers of government must therefore ensure leadership support, prioritize NCD interventions and ensure adequate budgetary allocation and release to support this initiative. In addition, the ministries of health must work with all stakeholders to develop and implement a framework for the overall strengthening of the primary health care with particular emphasis on essential medical products and technologies, health information system, human resources for health, service delivery, health financing and involvement of the communities.

Operational guidelines and protocols which define prerequisites for integrating a core set of essential NCD interventions into primary care must be developed and disseminated to the primary level of care to aid service delivery. This will ensure better quality of diagnosis, case management and follow-up. Furthermore, it will aid the standardization of care and treatment services and enhance the use of evidence-based approaches.

1.7.6: Conclusion

This chapter highlights the burden of NCDs and risk factors in Nigeria as well as the importance of integrating NCD prevention and control into the primary care level. The negative effects of Non communicable diseases on health and socioeconomic development are increasingly understood and require a strong response from all stakeholders. These require strengthening health systems and improving the social determinants of health. Strong political leadership is required to catalyze and sustain the prioritization of NCDs care at the primary level and Nigeria cannot afford to remain complacent in the face of the growing burden of Non communicable diseases. Stakeholders must improve on prevention and primary care for Non- communicable diseases in Nigeria to address the inequalities in access and promote the principles of Universal Health Coverage.

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Figure 1.8: POTENTIAL OBSTACLES AND STRATEGIES TO ACHIEVE THE POLICY GOAL

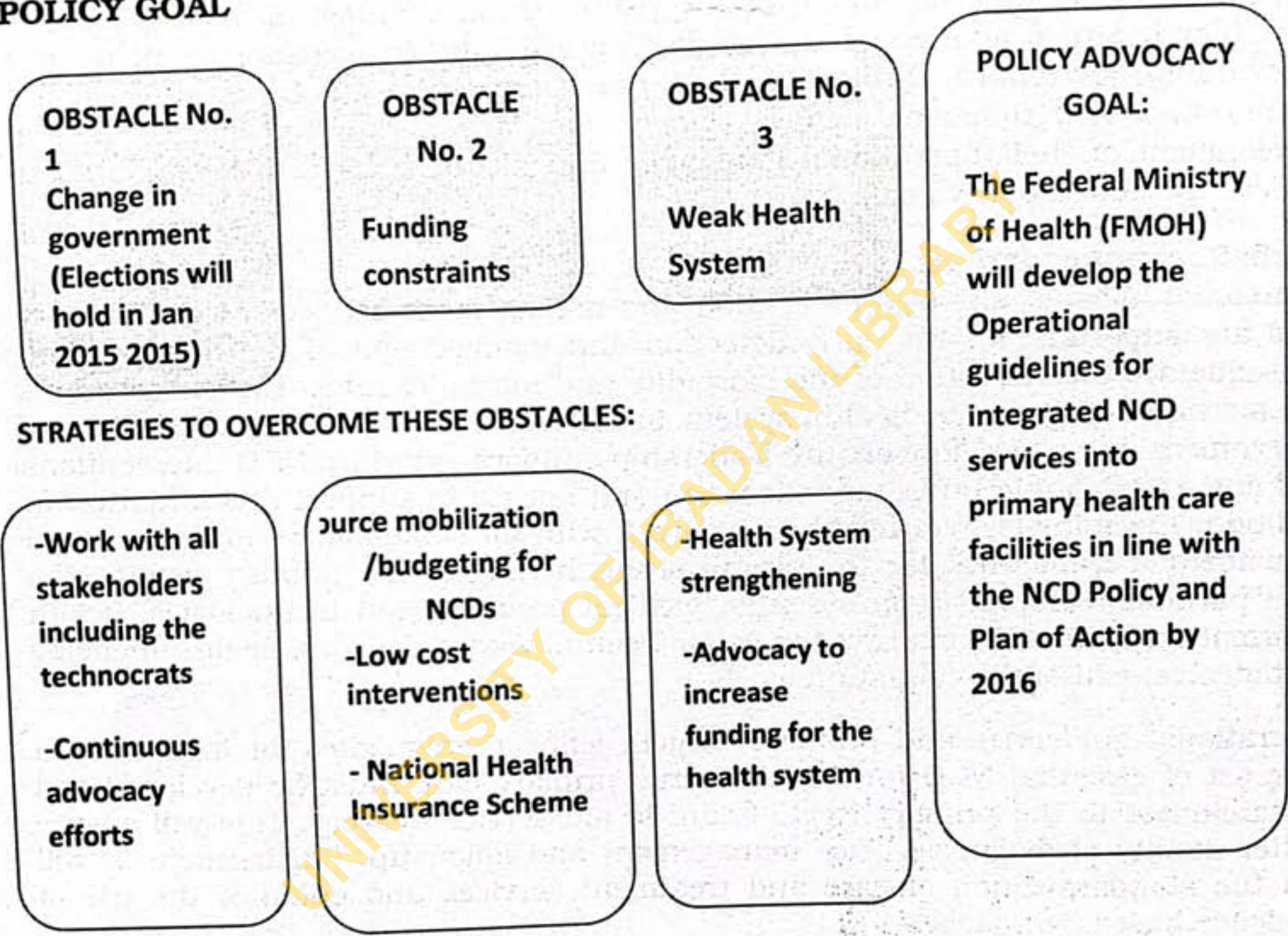

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Table 1.11: WORKPLAN FOR THE POLICY OBJECTIVE

OBJECTIVE No. 1: The National Expert Committee on NCDs (Staff of Public Health Dept, FMOH & the Nigeria NCD Alliance) will develop the draft national clinical practice guidelines (NCPG) for integrated NCD management at primary care by 2015				
A. Activity	B. Responsible staff	C. Partner(s)	D. Cost	E. Timeline
Meeting with the technical staff of the NCD Division to discuss the drafting of the NCPG	Officers of NCD Alliance	SANOFI Groups, Novartis, OOF etc.	Flight Hotel accommodation and per diem	July, 2014
Meeting of NCD Alliance to draft the NCPG (Diabetes, Hypertension, Cancer, Asthma etc)	Officers of NCD Alliance	SANOFI Groups, Novartis, OOF etc.	Flight Hotel accommodation and per diem	August, 2014
Participate in the meeting of National Expert Committee on NCDs to review the draft of the NCPG (Diabetes, Hypertension, Cancer, Asthma etc) developed by NCD Alliance	President DAN	SANOFI Groups, Novartis, OOF etc.	Flight Hotel accommodation and per diem	September, 2014

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OBJECTIVE No. 2 The National Expert Committee on NCDs (Staff of Public Health Dept, FMOH & the Nigeria NCD Alliance) will develop the case management models (algorithms, flow charts, protocols) for integrated NCD management at primary care by 2015				
A. Activity	B. Responsible staff	C. Partner(s)	D. Cost	E. Timeline
Meeting of NCD Alliance to draft the case management models (algorithms, flow charts, protocols)	Officers of NCD Alliance	SANOFI Groups, Novartis, OOF etc.	Flight Hotel accommodation and per diem	August, 2014
Participate in the meeting of National Expert Committee on NCDs to review the draft of the case management models (algorithms, flow charts, protocols) developed by NCD Alliance	President DAN	SANOFI Groups, Novartis, OOF etc.	Flight Hotel accommodation and per diem	September, 2014

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OBJECTIVE No. 3: The National Expert Committee on NCDs (Staff of Public Health Dept, FMOH & the Nigeria NCD Alliance) will conduct a pilot scheme for the national implementation of NCD care at the primary level using the draft clinical practice guidelines and case management models by 2016

A. Activity	B. Responsible staff	C. Partner(s)	D. Cost	E. Timeline
Meeting with the technical staff of the NCD Division of FMOH and SMOH to discuss the pilot-scheme of implementation of NCD care at the primary level using the NCPG and Case Management Models	Officers of NCD Alliance	SANOFI Groups, Novartis, OOF etc.	Flight Hotel accommodation and per diem	October, 2014

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References and further Reading

1. Abegunde D et al (2007) Can non-physician health-care workers assess and manage cardiovascular risk in primary care? Bulletin of the World Health Organization, 2007, June, 85(6):432–440.
2. Carrin G et al (2008) Universal coverage of health services: tailoring its implementation. Bulletin of the World Health Organization, 2008, November; 86(11):857–863.
3. Chinenye S, Oputa RN and Oko-Jaja RI (2014) Diabetes and related diseases in Nigeria: need for improved primary care in rural communities, Res J. of Health Sci, 2014, 2(2):99-107
4. Federal Ministry of Health (2010c) 'National Strategic Health Development Plan (NSHDP) 2010-2015. Federal Ministry of Health, Nigeria' [online]. Available from:
   http://www.fmh.gov.ng/images/stories/documents/NSHDP_inside_pages_23_12_10.pdf [accessed: 5th December, 2011].
5. International Agency for Research on Cancer and World Health Organization (2012), GLOBACON 2012, Estimated Cancer incidence, mortality and prevalence worldwide in 2012 ' [online]. Available from: http://globocan.iarc.fr/Default.aspx[accessed: 5th December, 2011].
6. International Diabetes Federation (2012) Annual Report [online]. Available from:http://www.idf.org/sites/default/files/IDF_Annual_Report_2012-EN-web.pdf [accessed: 8th March, 2013].
7. Thorogood M et al (2007) South African Stroke Prevention Initiative ; vascular risk factors in a rural South African population BNC Public Health 2007;7:326 .
8. Ogah O.S, Okpechi I, Chukwuonye I.I, Akinyemi J.O, Onwubere B.J.C, Falase A.O, Stewart. S., and Sliwa K (2012) Blood pressure, prevalence of hypertension and hypertension related complications in Nigerian Africans: A review World J Cardiol. Dec 26, 2012; 4(12): 327–340.
9. World Health Organization (2008) '2008-2013 Action Plan for the Global Strategy for the Prevention and Control of Noncommunicable Diseases'
10. World Health Organization (2010) 'Package of Essential Noncommunicable (PEN) Disease Interventions for Primary Health Care in Low-Resource Settings' '
   [online]. Available from:
   http://www.fmh.gov.ng/images/stories/documents/NSHDP_inside_pages_23_12_10.pdf [accessed: 12th May, 2012].
11. World Health Organization (2010): Global status report on noncommunicable diseases: Description of the global burden of NCDs, their risk factors and determinants.
12. Fasanmade OA, Odeniyi IA, Fasanmade OO, Iwuala SO. Global Challenges in Health: effects of westernization on the prevalence of diabetes mellitus in Nigeria. *Res. J. of Health Sci.* 2014, 2(2):56-63.
13. Nyenwe EA, Odia OJ, Ihekwaba AE, Ojule A, Babatunde S. Type 2 diabetes in adult Nigerians: a study of its prevalence and risk factors in Port Harcourt, Nigeria. Diab Res Clin Pract 2003;62:177-185.
14. Ekpeyong CE, Akpan UP, Ibu JO, Nyebuk DE. Prevalence and associated risk factors of type 2 diabetes mellitus in Uyo metropolis, South eastern Nigeria. Diabetica Croatia 2012; 41(1):17-28.

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