





### Suggested Reference

Eminence 2013. *Writing about Health: A Handbook for Journalists*. Dhaka, Bangladesh and Calverton, Maryland, USA: Eminence Associates for Social Development (Eminence) and ICF Macro.

*“This handbook has been made possible by financial assistance from USAID. The content, however, may not necessarily reflect the views of USAID or the U.S. Government”.*



# Writing about Health

*A Handbook for Journalists*



**USAID**  
FROM THE AMERICAN PEOPLE

**eminence**<sup>™</sup>  
associates for social development

## Key Words

Bangladesh  
Health  
Nutrition  
Population  
Journalism

## Writing/Editing

Heidi Good Boncana: *Johns Hopkins Bloomberg School of Public Health*  
Laurie Liskin: *MEASURE DHS project*  
Christopher Conte, *Journalist*

## People behind this Book

### Members of Eminence who worked on this handbook:

**Dr. Md. Shamim Hayder Talukder**  
**Shusmita Hossain Khan**  
**Md. Mehedi Hasan Fuad**  
**Md. Shofikul Islam**  
**Tania Tasnin**

### Members of a Technical Working Group (TWG) provided guidance for this handbook:

**Kimberly Rook**  
*Bangladesh Knowledge Management Initiative Project*  
*JHU-CCP*

**Shishir Moral**  
*Special Correspondent*  
*The Daily Prothom Alo*  
*Bangladesh*

**Nurul Islam Hasib**  
*Senior Correspondent*  
*bdnews24.com*  
*Bangladesh*

### Acknowledgment

All members of the Technical Working Group  
**Mr. Ganesh Chandra Sarkar** (*Joint Secretary*)  
*Director General, Directorate General of Family Planning*

# Table of Contents

<b>Chapter One : Health Journalism</b>	<b>1</b>
A Few Words on Health Journalism	1
The Purpose of Health Journalism	1
Learning to be a Health Journalist	2
<b>Chapter Two : Understanding Public Health</b>	<b>3</b>
Few Words on Public Health	3
Public Health Principles	4
Determinants of Public Health	4
Inequalities in Health: A Key Issue	5
<b>Chapter Three : Major Public Health Issues in Bangladesh</b>	<b>7</b>
Overview of Health in Bangladesh	7
Maternal, Newborn and Child Health (MNCH)	8
Acute Respiratory Infections (ARIs) and Pneumonia	9
Diarrhea and Water-borne Diseases	9
Malaria	10
Dengue	10
Vaccination and Immunization	10
Essential Nutrition	11
Improved Water, Sanitation and Hygiene (WASH)	11
Tuberculosis	12
HIV/AIDS	12
Non Communicable Diseases (NCDs)	13
Neglected Tropical Diseases	13
Road Safety	14
<b>Chapter Four : Understanding the Health Care Delivery System     Infrastructure in Bangladesh</b>	<b>15</b>
The Ministry of Health and Family Welfare (MoHFW)	15
Directorates under MoHFW	16
<b>Chapter Five : Major Health Information Sources in Bangladesh</b>	<b>21</b>
Bangladesh Demographic Health Survey (BDHS)	21
Bangladesh Maternal Mortality and Health Care Survey (BMMS)	21
Multiple Indicator Cluster Survey (MICS)	21
Household Income and Expenditure Survey (HIES)	22
Census	22
The Health Information System (HIS) of Director General of Health Services (DGHS)	22
Management Information System (MIS) of Directorate General of Family Planning	22

Chapter Six : Reading Tables	23-30
Chapter Seven : Tips for successful writing – from Blogs to Traditional News Reporting	31
Approaches to Finding Topics	31
Saving Ideas	32
Information-Gathering Strategy	33
Identifying People to Interview	33
Tips on Interviewing	34
Covering Research	36
The Art of Writing	38
Writing and the Internet	38
Chapter Eight Ethical Aspects of Health Journalism	41
Accuracy	41
Content	41
Independence	42
Personal Rights	42
Professionalism	42
Journalism’s Don’ts	42
Journalism’s Dilemmas	43
Chapter Nine Additional Resources	45
The Association of Health Care Journalists	45
Society of Professional Journalists	45
Project for Ethics in Journalism	45
The Guardian	45
International Federation of Journalists	45
Reporting tools and health journalism handbooks:	45
Public Health Contacts in Bangladesh	48
Chapter Ten Glossary of Terms	51-56

## A Few Words on Health Journalism

Journalists play a crucial role in the health system of a nation. As one of society's most effective institutions for disseminating information, the media keep the public informed about where to seek care, how to live healthy lives, avoid disease and, when that fails, how to cope with illness. But just as important, when the media cover health issues widely and effectively, the exchange of information may influence government officials, healthcare providers, health product suppliers, academicians, researchers, and the general public to adopt common strategies that improve everyone's health.



*Photo Credit: bu.edu*

This handbook provides some tools that will help journalists perform this vital function.

## The Purpose of Health Journalism

Health journalists relay information to the public that helps us prevent or manage myriad health conditions, both in times of crisis and every day. They show us how to live healthier lives as individuals, and help us decide how to establish systems and services that address these concerns collectively. They address issues as varied as best practices for routine care, disease prevention, chronic illness and health crisis management, emergency response and access to services.

Health journalism often focuses on behavior changes at the individual level, pushing people to make healthier life choices, such as vaccinating children against preventable disease or eating more nutritious food. It also addresses system and policy concerns, prodding government and private health providers to ensure that services reach all citizens, including the poor, and pushing for adequate sanitation, ample supplies of food and safe water, and effective action to contain and prevent epidemics.

Effective health journalism should be accurate, easy to understand, balanced in terms of sources of information, consistent, culturally relevant, and evidence-based. It also should recognize the particular needs of its target audience. To have the greatest impact, health journalism must examine existing interventions and policies, explain the rationale behind them, and explore risks, benefits and options.

## Learning to be a Health Journalist

Health journalists need all the skills that any journalist must have: *curiosity, skepticism, a willingness to work hard, a sense of fairness, an eagerness to learn, and a commitment to high ethical standards.* A health journalist also must know how to use words and numbers: *words are the clay with which you work, so choose them carefully.* Factual information should be presented at all times, supported by data and detail; numbers are a key to understanding many health issues and their real effect at individual- and population-based levels.

Besides needing basic journalism skills, health journalists also must acquire a simple working knowledge of key health issues and be able to explain them in everyday language. At their best, journalists hover between worlds of experts and the general public. To connect the two, journalists must be able to communicate at both levels. This does not mean you are expected to be a public health worker or a medical professional, but you do need some basic knowledge and an understanding of the concerns of medical professionals and public health experts in order to talk about the issues in a way that the general public can understand and relate to.

There are some good tools to help you come up to speed, but most are available only in English or other Western languages. Yet, in a brief visit to a high-quality web site, a journalist can gather enough background information to conduct intelligent interviews with experts on almost any health topic. Among the best websites for getting started are Medline Plus ([www.medlineplus.gov](http://www.medlineplus.gov)), which includes an easy-to-use collection of background information on more than 700 health conditions, all written in everyday language by experts who have no health-industry ties; Web MD ([www.webmd.com](http://www.webmd.com)), an online health journal that maintains a policy of editorial independence; and the World Health Organization ([www.who.int/en](http://www.who.int/en)), which leads United Nations' health efforts all around the world.

These sites also can be useful when it comes to writing or producing health stories, as they have glossaries, links to the latest research and developments, citations and other background information you can use to give stories depth and ensure their technical accuracy. They can link you to peer-reviewed journals that provide the most reliable, up-to-date information on health research. But you need to consult them before going into the field to interview experts. Health professionals, researchers, and government planners are busy people, and while they do not expect a journalist to know everything, they often are reluctant to work with reporters who lack even rudimentary understanding of issues. A little bit of effort to get grounded, combined with a sincere and thoughtful attitude that demonstrates your sincerity, will go a long way toward getting reliable and newsworthy information.





## Few Words on Public Health

*"Health care is vital to all of us some of the time, but public health is vital to all of us all of the time." - C. Everett Koop, thirteenth Surgeon General of the United States*

*Public health is "the science and art of preventing disease, prolonging life and promoting health through the organized efforts and informed choices of society, organizations, public and private, communities and individuals".- C.E.A. Winslow, seminal public health expert and bacteriologist*

*The mission of public health is to "fulfill society's interest in assuring conditions in which people can be healthy."- Institute of Medicine, Committee for the Study of the Future of Public Health, Division of Health*

Journalists have a particular interest in public health, which is the field of health that addresses the concerns and risks facing the entire population. Unlike medical care, which involves treating individuals who have specific diseases, public health officials focus on prevention and attack the factors that pose a risk to health in general. A health system that addresses medical care alone has little chance of getting ahead of the many health challenges that arise. Reducing risk factors in the community-at-large, thereby preventing disease from occurring, has been proven to have the greatest impact and to be the most cost-effective approach to health. Besides being essential to preventing recurring illness, risk-reduction efforts also have proven to be invaluable in diagnosing illness and providing treatment.

In general, officials follow a fairly standard path in addressing a public health problem:

- Defining the health problem;
- Identifying risk factors associated with the problem;
- Developing and testing community-level interventions to control or prevent the cause(s) or the problem;
- Implementing interventions to improve the health of the population;
- Monitoring those interventions to assess their effectiveness.

After a program or service has been put into effect, public health professionals must look at its results with a critical eye, asking the following questions:

- Did the strategy and interventions work as intended?
- Were the results achieved as expected?
- If yes, can the program be expanded or replicated?
- If not, should the program be abandoned or revised?

Journalists covering health services should keep the above points in mind and use these to help formulate stories on public health initiatives. They should, of course, report on public health officials' own conclusions. But they also should seek the views of others so they can provide a balanced and independent assessment.

## Public Health Principles

Health journalists need to understand the wide variety of interconnected tasks that public officials perform. These include:

- Monitoring the health status of the population to identify community health problems;
- Diagnosing and investigating health problems and health hazards in the community;
- Informing, educating, and empowering people about health issues;
- Mobilizing community partnerships to identify and solve health problems;
- Developing policies that support individual and community health efforts;
- Enforcing laws and regulations that protect health and ensure safety;
- Linking people to needed personal health services and assuring the provision of health care when otherwise unavailable;
- Assuring a competent public health and personal health care workforce;
- Evaluating effectiveness, accessibility, and quality of personal and population-based health services;
- Researching new insights and innovative solutions to health problems.

Photo Credit : [resiliencesystem.org](http://resiliencesystem.org)



## Determinants of Public Health

Many factors combine to affect the health of individuals and communities. To a large extent, factors such as where we live, the state of our environment, genetics, income, education level, and our relationships with friends and family all have considerable impact on our health. More commonly considered factors, such as access to and use of health care services, often have less of an impact.

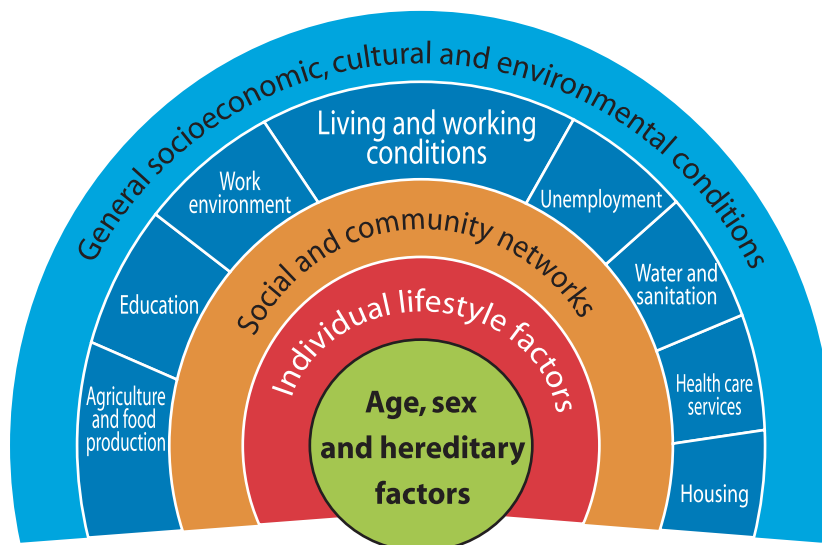


Photo Credit : [www.healthyplanetuk.org](http://www.healthyplanetuk.org)

The determinants of public health include:

- The social and economic environment;
- The physical environment;
- Individual characteristics and behaviors;
- Education;
- Social support networks;
- Ethnicity;
- Availability of and access to health services;



*Photo Credit : eminence*

## Inequalities in Health: A Key Issue

You may find the term ‘health inequalities’ used in research and policy literature. This refers to the unfair or unjust nature of health differences between social groups, generated by social conditions.

Substantial bodies of research have shown that people who are poorest or most disadvantaged are more likely to face illness during their lifetime and die younger than those who are better off. In fact, health generally improves with each step up the income ladder, as people come to have more disposable income to purchase better quality food, medicine, education, housing and other elements that contribute to higher standards of living. For example, childhood mortality rates are considerably higher among the poorest families than among wealthiest families. Underlying socio-economic differences and lack of access to health care combined with cultural prejudices also explain inequity based on ethnicity, gender or geography.

Inequality between groups—the “haves” versus the “have not’s”—is an important topic for journalists to cover largely because of the health implications that stem from these inequities.

You may think that such inequalities are only in countries like ours. But that is simply not true. Here are some examples of inequalities around the world:

*Photo Credit : flickr.com*

- **USA:** African-American infant mortality is twice as high as the national average ;
- **Indonesia:** Less than two-thirds of children from the poorest 20% of the population received all recommended childhood vaccinations compared with almost 80% of children from the wealthiest 20% of the population;
- **India:** Urban households are three times more likely to have private improved toilet facilities than rural households;
- **Bangladesh:** Over half of women from the poorest 20% of the population have received no education compared to only 11% of women from the wealthiest 20% of the population.

Since inequality is a sensitive subject, writing on this issue is often challenging. As a journalist, you must consult standard data sources for health and socioeconomic disparities. The Demographic and Health Survey is the gold standard for reporting on health data in developing countries. Other sources, such as the UNICEF “State of the World’s Children” Annual Report, and various references from the World Health Organization (WHO) can be used when citing or comparing national data on issues such as maternal health, newborn and child health, education rates, vaccination coverage and nutrition.

*Photo Credit: eminence*



## Overview of Health in Bangladesh

Public health has improved markedly in Bangladesh over the past three decades. Life expectancy at birth is approximately 70 years, just above the World Health Organization's world average of 69 years. Maternal mortality, infant and child mortality, and malnutrition rates have all declined substantially, and Bangladesh is on track to achieve its Millennium Development Goals for maternal and child health.

Nevertheless, Bangladesh faces major health challenges. The national population is projected to grow to between 200 to 225 million over the next four decades. While fertility has declined, women have on average 2.3 children, and only about half use modern and effective contraceptive methods. Despite improvements in maternal health, Bangladesh still ranks in the bottom fourth of countries worldwide with approximately 240 deaths per 100,000 live births. Only one in four births takes place in a health care facility, putting both mothers and babies at risk. Although infant and child mortality is decreasing, poor nutrition is a critical health problem in Bangladesh. About half of children age 6-59 months suffers from anemia; four-in-ten are stunted; and one in three is underweight. Bangladesh has one of the worst burdens of childhood malnutrition in the world.

Communicable diseases are a major cause of death and disability in Bangladesh. While the prevalence of tuberculosis (TB) has declined substantially, Bangladesh still ranks among the top ten countries in the world with the highest TB burden. The disease is found primarily among the poor and least educated populations. Pneumonia and water-borne diseases also are widely prevalent. Pneumonia and other infections are major causes of death among young children.

The toll of non-communicable diseases — chronic diseases, cancer, diabetes, cardiovascular diseases, and chronic respiratory diseases — is increasing in Bangladesh as the population becomes more urbanized. In the first national survey to measure blood pressure and blood glucose, about one in three women and about one in five men age 35 and older has elevated blood pressure and roughly one in ten has elevated blood glucose, an indication of diabetes. Cancer is the sixth leading cause of death in Bangladesh, accounting for more than 150,000 deaths annually.

Photo Credit : eminence



## Bangladesh Trends in Key Health Indicators, based on the Demographic and Health Surveys

Key Indicators	1996-97	1999-2000	2004	2007	2011
<i>Fertility and Family Planning</i>					
Total fertility rate (women age 15-49)	3.27	3.3	3.0	2.7	2.3
Family planning use (married women age 15-49)					
Any method	49%	54%	58%	56%	61%
Any modern method	42%	43%	47%	48%	52%
<i>Childhood Mortality (deaths per 1,000 live births)</i>					
Neonatal mortality (first month after birth)	48	42	41	37	32
Infant mortality (between birth and first birthday)	82	66	65	52	43
Under-five mortality (between birth and fifth birthday)	116	94	88	65	53
<i>Maternity Care and Child Health</i>					
Births in last 3 years delivered in health care facility (%)	5	8	11	16	29
Children 12–23 months fully vaccinated(%)	54	60	73	82	86
<i>Nutrition</i>					
Children under 5 years who are stunted (moderate or severe) (%)	60*	51*	51	43	41
Children under 5 years who are wasted (moderate or severe) (%)	21*	12*	15	17	16
Children under 5 years who are underweight (%)	52*	42*	43	41	36

*\*Based only on children of female respondents; results for other more recent surveys based on all children under 5 in the household*

### Maternal, Newborn and Child Health (MNCH)

Ensuring optimal health for girls of reproductive age, improving the health and nutrition of mothers-to-be, and providing quality reproductive health services including ante- and post-natal care are pivotal to ensuring safe motherhood.

Improving the health of mothers-to-be, including provision of quality reproductive health and family planning services, is pivotal to addressing many underlying causes of maternal and child mortality. A vast majority of maternal deaths are caused by direct obstetric causes such as hemorrhage, infection, hypertensive disorders of pregnancy such as eclampsia, and complications from unsafe abortion.

For every woman who dies from complications related to childbirth, approximately 20 more suffer injuries, infections and disabilities that may be left untreated and ignored, resulting in life-long pain and social and economic exclusion. Many maternal and newborn deaths can be prevented through identification of complications and timely care, particularly in the first 24-48 hours after giving birth. Women who receive routine antenatal care, optimal nutrition and practice birth spacing are at a healthy advantage.

Bangladesh's maternal mortality ratio has declined over time. However, with 240 deaths for every 100,000 live births, Bangladesh ranks well behind most other large Asian countries. Bangladeshi women are less likely to receive antenatal care and to give birth in health care facilities than women in many other countries, increasing risks to mothers and babies.

## Acute Respiratory Infections (ARIs) and Pneumonia

Pneumonia is the leading cause of death worldwide in children-under-five. According to the World Health Organization, nearly 400 children die each day from ARIs in Bangladesh. Pneumonia, infection, and birth asphyxia are major causes of under-five deaths in the country. Early detection and treatment of infection is key to saving lives.

## Diarrhea and Water-borne Diseases

Diarrheal diseases account for nearly 2 million deaths a year among children under five years of age, making them the second most common cause of child deaths worldwide. Measures to prevent childhood diarrheal episodes include: promoting exclusive breastfeeding, improving hygiene and sanitation, increasing access to improved sources of drinking water and sanitation facilities, zinc intake to ensure intestinal health, and hand washing with soap at critical times throughout the day (after using the bathroom, changing a diaper, before preparing a meal or eating). Prompt treatment of diarrhea with zinc in combination with oral rehydration salts (khabar) or a homemade mixture of sugar, salt, and water (labongur) reduces serious illness and the risk of death. Treatment of childhood diarrhea has improved in Bangladesh. According to the 2011 Bangladesh DHS, diarrhea is no longer a leading cause of death among children.

*Photo Credit : [www.flickr.com](http://www.flickr.com)*





Photo Credit : [www.daily-sun.com](http://www.daily-sun.com)

## Malaria

Malaria is an infectious blood disease caused by a parasite (*Plasmodium falciparum* and *Plasmodium vivax*) that is transmitted to humans via the bite of infected mosquitoes. Malaria is common in some areas in northeast and southeast Bangladesh. Out of the total 64 districts, 13 are high-endemic areas of malaria transmission. A total of 50,000 confirmed malaria cases are reported each year, but under-reporting is widespread. Prevention is key: sleeping under an insecticide-treated bed net every night, wearing long sleeves, light colored clothing all help prevent mosquito bites. However, if contracted, simple medicines are available and largely effective when taken with the first sign of illness.

## Dengue

Dengue is a mosquito-borne viral infection that causes flu-like symptoms and occasionally develops into a potentially fatal infection. As opposed to malaria, dengue is carried in mosquitoes that are active during daylight hours. Approximately half of the world's population is at risk, largely in urban areas in tropical and sub-tropical regions, and global incidence has grown markedly in recent decades. There is no treatment for dengue, however early detection and access to medical care lowers fatality rates.

## Vaccination and Immunization

Immunization makes a person resistant to an infectious disease, typically by the administration of a vaccine. Vaccines stimulate the body's immune system to protect a person against subsequent infection or disease. According to the 2011 Bangladesh DHS, 86% of children aged 12-23 months have received all recommended vaccinations.



Immunization is a proven tool for controlling and eliminating life-threatening infectious diseases and is estimated to avert between 2 and 3 million deaths each year. It is one of the most cost-effective health investments, with proven strategies that make it accessible to even the most hard-to-reach and vulnerable populations. Vaccination has clearly defined target groups; it can be delivered effectively through outreach activities; and does not require any major lifestyle change.

## Essential Nutrition

Poor nutrition, often called under-nutrition can damage physical, intellectual, and mental health, leading to reduced immunity, increased susceptibility to disease, impaired physical and mental development and reduced educational and economic productivity. It is well recognized that the period from birth to two years of age is the critical window for the promotion of behavioral and cognitive development. Highly nutritious infant and young child feeding are crucial during this period.

Proper nutrition during pregnancy, breastfeeding exclusively for the first six months of life, complimentary feeding starting at age 6 months with adequate calories, protein, and micronutrients such as iron, folate, Vitamin A and Vitamin D are essential for a child's development and a mother's health.



Photo Credit :my.worldvision.org

Children in Bangladesh have poorer nutritional status than children in most other countries. In Bangladesh, close to 50% of children-under-five are stunted due to poor nutrition, with urban poor most affected. Twenty-two percent of infants are low birth weight, only 43% of infants are exclusively breastfed, and 41% of children-under-five are moderately to severely underweight. Improving nutrition should be a major public health priority in Bangladesh.

## Improved Water, Sanitation and Hygiene (WASH)

Around 1.1 billion people globally do not have access to improved water supply sources and 2.4 billion people do not have access to any type of improved sanitation facility. Approximately 2 million people die every year due to diarrheal diseases, the most vulnerable of which are children under 5 years of age. The most affected are the populations in developing countries, living in extreme conditions of poverty, normally peri-urban dwellers or rural inhabitants.

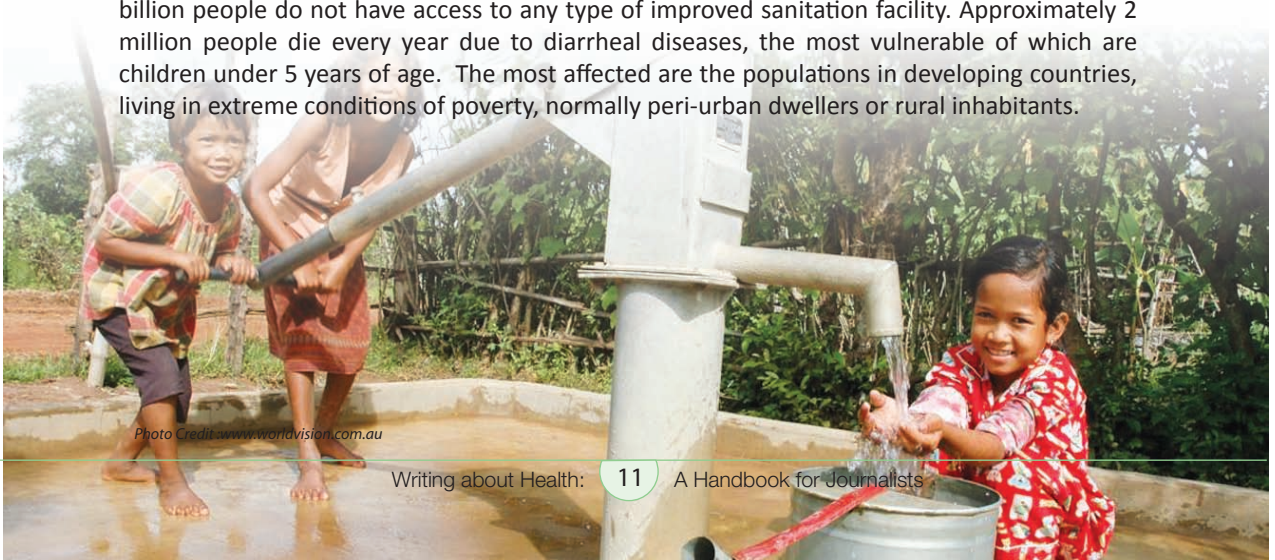


Photo Credit :www.worldvision.com.au

Sanitation generally refers to the toilets or latrines for safe disposal of human urine and feces. Inadequate sanitation is a major cause of disease worldwide. Improving sanitation is a proven public health intervention at the household, community, and national levels. The word 'sanitation' also refers to the safe disposal of environmental waste, such as garbage and wastewater.

Hygiene refers to conditions and practices that help to maintain health and prevent the spread of diseases. Medical hygiene includes a specific set of practices, for example environmental cleaning, infection control in health care facilities, hand hygiene, water and sanitation, and safe disposal of medical waste.

## Tuberculosis

Tuberculosis, or TB, is an infectious bacterial disease caused by *Mycobacterium Tuberculosis*. It is transmitted from person to person via droplets from the throat and lungs of people with the active respiratory disease and thus, is most likely to spread in overcrowded environments such as urban slums and prisons. People who are infected may have no symptoms. TB is treatable with a strict six-month course of antibiotics. However multi-drug-resistant TB (MDR-TB) is becoming more and more prevalent. Incidence of tuberculosis in Bangladesh is 225 cases per 100,000 people.

## HIV/AIDS

The human immunodeficiency virus (HIV) is a retrovirus, contracted through infected blood or bodily fluid, which infects cells of the immune system, destroying or impairing their function. As the infection progresses, the immune system becomes weaker, and the person becomes more susceptible to opportunistic infections. The most advanced stage of HIV infection is acquired immunodeficiency syndrome (AIDS). It can take 10-15 years for an HIV-infected person to develop AIDS; antiretroviral drugs can slow down the process.

*Photo Credit : eminence*

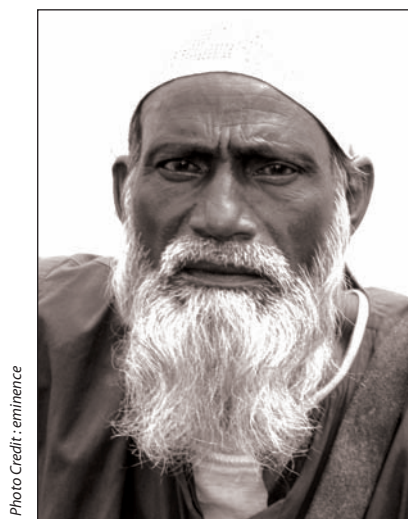


In Bangladesh, only 1% of the population is reported to be HIV-positive, but rates are much higher among high-risk populations: injecting drug users, sex workers, and men who have sex with men. The majority of Bangladeshi adults are not well informed about transmission or prevention of HIV.

HIV is transmitted through unprotected sexual intercourse (anal or vaginal), transfusion of contaminated blood, sharing of contaminated needles, and between a mother and her infant during pregnancy, childbirth and breastfeeding. Using condoms correctly and consistently, having sexual relations with one monogamous partner, and avoiding intravenous drug use and regular testing can all help reduce exposure to the virus.

## Non Communicable Diseases (NCDs)

Non-communicable diseases (NCDs), defined as medical conditions that cannot be transmitted from person-to-person, are a growing public health problem in Bangladesh as well as in the rest of the world. Major non-communicable diseases include high blood pressure, diabetes, cancer and asthma. Cardiovascular (heart) disease is now considered to be a leading cause of death in Bangladesh. About one in three women and about one in five men age 35 and older has elevated blood pressure and roughly one in ten women and men age 35 and older has elevated blood glucose, an indication of diabetes.



## Neglected Tropical Diseases

Leishmaniasis (Kala-azar) is caused by a parasite transmitted by sand flies that often live in mud walls of homes. The disease is usually found among the poorest populations and is most prevalent in the northwestern part of the country. A new oral drug, Miltefosine, can now cure the disease however a counterfeit, substandard generic is often available in through the nationwide treatment program. Local drug regulations and supply monitoring must happen in order to eradicate this disease.

Lymphatic filariasis (“elephantiasis”) is caused by infection with roundworms after transmission via mosquito bite. Adult worms lodge in human lymph nodes and disrupt the immune system. The disease causes local infections, tremendous swelling of lymph nodes, disfiguration and pain. Inexpensive medicines can cure the disease, and mass single-dose drug administration campaigns are run to help eliminate the disease in at-risk endemic communities.

Leishmaniasis and lymphatic filariasis occur disproportionately in Bangladesh. Ninety percent of visceral leishmaniasis cases occur in India, Bangladesh, Nepal, Sudan, Ethiopia and Brazil. In 2010, there were 3,800 cases of visceral leishmaniasis reported in Bangladesh alone out of a global total of approximately 1.5 million. Approximately 20 million people in Bangladesh suffer from lymphatic filariasis yet closer to 70 million people are at risk of infection as it is highly endemic in 33 out of 64 districts. It is considered a major public health issue in country.



## Road Safety

More than 4,000 people die each year on Bangladesh's roads. According to the World Health Organization, road traffic injuries cause a loss of about 2% of GDP in Bangladesh each year — an amount nearly equal to the total foreign aid the country receives.

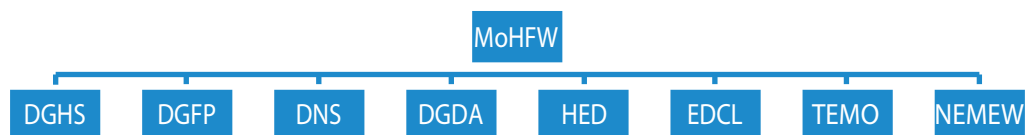
Road accidents have many causes: unskilled and reckless drivers, speeding, overloading, vehicle defect, hazardous road conditions, poor supervision or adherence to traffic rules. Because of the sheer number of road-related accidents and mortality, road safety should be considered a public health issue when reporting on Bangladesh.

# Understanding the Health Care Delivery System Infrastructure in Bangladesh

The Constitution of the People's Republic of Bangladesh states that health is fundamental to human development and “is the basic right of every citizen of the Republic”. Bangladesh has a health system that offers care through both public and private sectors, with the latter largely run by local entrepreneurs, non-governmental organizations (NGOs), and international organizations.

## The Ministry of Health and Family Welfare (MoHFW)

The Ministry of Health and Family Welfare (MoHFW) is the Governmental the leader for health and family planning-based policy, planning and decision making at macro and micro levels. The Honorable Minister for Health & Family Welfare, who is assisted by the Honorable State Minister for Health & Family Welfare, heads the ministry. The principal executing staff of the ministry is the Secretary, who works with a set of bureaucrats who report to him, including: the Additional Secretary, Joint Secretaries/Joint Chiefs, Deputy Secretaries/Deputy Chiefs, Senior Assistant Secretaries/ Senior Assistant Chiefs, and others. Under the ministry, four Directorates are providing health services to the citizens. These are the Directorate General of Health Services (DGHS), Directorate General of Family Planning (DGFP), Directorate of Nursing Services (DNS) and Directorate General of Drug Administration (DGDA) along with Health Engineering Department (HED), Transport & Equipment Maintenance Organization (TEMO), National Electro-medical & Engineering Workshop (NEMEW) and Essential Drugs Company Limited (EDCL). The graph below illustrates this hierarchy.



Since health, population and nutrition are important indexes of human development, MoHFW has been treated as a priority ministry of the government since 1998. Considering the strengths, challenges and lessons learned from implementing the two previous sector programs, the HPSP and the HNPS, the Government of Bangladesh has laid out a new five-year program (2011-2016) “Health Population Nutrition Sector Development Programme (HPNSDP)”. Under the guidance of the MoHFW, the Directorates and other departments are actively participating in implementation of this sector-wide approach.

## Directorates under MoHFW

Directorate General of Health Services (DGHS) acts as the focal point of all the health activities throughout Bangladesh. It is the largest executing authority under the Ministry of Health & Family Welfare. With more than 100,000 officers and staff, DGHS operates the health care delivery system for the ministry all over the country, down to village level. DGHS also provides technical guidance to the ministry. The activities of the DGHS are implemented through regular revenue as well as through development programs.

National	Divisional	District	Upazila	Union	Ward
Public Health Institute	Medical College & Hospital with nursing institute	District Hospital with nursing institute	Upazila Health Complex	Rural Health Center (in some)	Community Clinic (in some)
Postgraduate Medical Institute & Hospital with nursing institute	General hospital with nursing institute	General Hospital with nursing Institute (in some)	TB Clinic (in some)	Union sub center in some)	
Specialized Health Center	Infectious Disease Hospital	Medical College & Hospital with nursing institute (in some)		Union Health & Family Welfare Center (in some)	
	Institute of Health echnology	Chest Clinic (in some)			
		Leprosy Hospital (in some)			
		Medical Assistants' Training School			

**Figure:** Type of health facilities under DGHS in different administrative tiers

Community Health Care Service (CHCS) are community clinics (CCs) at the ward level; these are grass roots one-stop primary health care (PHC) service facilities, catering to the day-to-day health needs of the rural population. The CCs represent the first entry and contact point to the health referral system.

Union-Level Health Care Facilities include union health and family welfare centers (UHFWC) and union sub-centers that are being made fully functional as part of the union health services (UHS).

Upazila-Level Health Facility Complex ensures that primary health care services are accessible for the entire rural population. Out of the 507 upazilas in Bangladesh, by 2000, 374 had a completed health complex. Each of these complexes is intended to provide specialized facilities for medicine, surgery, gynecology, anesthesia, and dentistry.



Photo Credit : DGHS, Bangladesh

District-Level Health Facilities are the next tier of public sector health care, located at the zila, or district level. Each of Bangladesh's 64 zilas now has modern hospitals with a bed capacity ranging from 50 to 200 patients. Twenty-three medical college hospitals and eight postgraduate specialized institutes with attached hospitals are included in this level of health care.

Tertiary-Level Health Care Facilities are different types of special care centers. Infectious disease hospitals, tuberculosis hospitals, and leprosy hospitals all fall under tertiary care health facilities. The medical college hospitals are located in the regional level, one for several districts, are affiliated with medical colleges, and provide specialty care in many disciplines. These hospitals are also called tertiary hospitals. Tertiary hospitals also include the national-level super specialty hospitals or centers that provide high-end medical care services in only one field.

Directorate General of Family Planning (DGFP) has a similar managerial structure to the DGHS, operating from the national level down, including: director general, directors, deputy directors and assistant directors at the head office, divisional director, deputy director and assistant director at the division, district family planning officer (DFPO) at the district-level and upazila family planning officer (UFPO) in the upazila level. DGFP has a limited number of medical doctors, usually one medical officer for maternal and child health (MO, MCH) in each upazila, and one sub-assistant medical officer (SACMO – a medical assistant by background) in union health facility. The DGFP also has FWV (family welfare visitors) in the upazila and union facilities to perform family planning procedures. The domiciliary staff are called family planning inspector (FPI), assistant family planning inspector (AFPI) and family welfare assistant (FWA) at the ward level. The DGFP-run union facility, which is equivalent to that of union health and family welfare center of the DGHS, is called the family welfare center (FWC). There are 3,719 HFWCs at the union level. Additionally, DGFP operates 97 maternal and child welfare centers (MCWCs) : 24 in union level, 12 in upazila level and 61 in district-level, plus 471 MCH-FP clinics (407 in upazila level and 64 in district level) and 8 model clinics (2 at national level and 6 at regional levels). Lastly, DGFP organizes 30,000 makeshift satellite clinics each month and supports operation of 179 NGO clinics--27 in union-level, 86 in upazila-level, 44 in district-level and 22 in national-level.

The Directorate of Nursing (DNS) falls under the Ministry of Health and Family Welfare. It is the highest body for managing the overall administration of nursing services in Bangladesh. Regulation of nursing education and practices is the responsibility of the Bangladesh Nursing Council; however, the Council works closely with the Directorate of Nursing Services in regulating all services.



Photo Credit : [www.ipsnews.net](http://www.ipsnews.net)

The Directorate of Nursing Services is one of the members of the policy-making committees at the national-level relating to Health and has similar roles and responsibilities as the Directorates of Health Services and Family Planning in terms of authority and executive power.

There are approximately 82 Nursing Colleges and Institutes throughout the country. In Bangladesh, Registered Nurses (male), nurse-midwives (female), and assistant nurses – mainly female – are usually involved in providing clinical services. The nurses work at different levels of the health care system, primarily in hospitals, as Nursing Superintendent, Deputy Nursing Superintendent, Nursing Supervisor, Senior Staff Nurse and Staff Nurse. Nurses work at Government, private, Army institutions and NGO-run facilities. There are approximately 30,000 registered nurses in Bangladesh of which about 15,000 nurses are working in the Government sector. Nearly 13,000 registered nurse-midwives are either unemployed or working in the non-government sector; and about 2,000 are working abroad.

Institutional health care infrastructure has been extended from national-level down to the union levels where sub-center exists. The Bangladesh Government has also begun to provide health care services at the household-level. As such, the sphere of nurses' clinical practice has also expanded from highest to lowest institution, namely, 10-bed Rural Health Centers (RHC).

Photo Credit : [app.dghs.gov.bd](http://app.dghs.gov.bd)







Photo Credit : [www.jhuccp.org](http://www.jhuccp.org)

The Directorate of Nursing (DNS) falls under the Ministry of Health and Family Welfare. It is the highest body for managing the overall administration of nursing services in Bangladesh. Regulation of nursing education and practices is the responsibility of the Bangladesh Nursing Council; however, the Council works closely with the Directorate of Nursing Services in regulating all services.

The Directorate of Nursing Services is one of the members of the policy-making committees at the national-level relating to Health and has similar roles and responsibilities as the Directorates of Health Services and Family Planning in terms of authority and executive power.

There are approximately 82 Nursing Colleges and Institutes throughout the country. In Bangladesh, Registered Nurses (male), nurse-midwives (female), and assistant nurses – mainly female – are usually involved in providing clinical services. The nurses work at different levels of the health care system, primarily in hospitals, as Nursing Superintendent, Deputy Nursing Superintendent, Nursing Supervisor, Senior Staff Nurse and Staff Nurse. Nurses work at Government, private, Army institutions and NGO-run facilities. There are approximately 30,000 registered nurses in Bangladesh of which about 15,000 nurses are working in the Government sector. Nearly 13,000 registered nurse-midwives are either unemployed or working in the non-government sector; and about 2,000 are working abroad.

Institutional health care infrastructure has been extended from national-level down to the union levels where sub-center exists. The Bangladesh Government has also begun to provide health care services at the household-level. As such, the sphere of nurses' clinical practice has also expanded from highest to lowest institution, namely, 10-bed Rural Health Centers (RHC).

The Directorate General of Drug Administration (DGDA), under the Ministry of Health and Family Welfare, is the drug regulatory authority of the country. The Directorate General of Drug Administration's mission is to ensure that people have easy access to , safe and good quality essential and other drugs at affordable prices. The DGDA supervises and implements all prevailing drug regulations in the country and oversees all activities related to import, procurement of raw and packing materials, production and import of finished drugs, export, sales, and pricing of all kinds of medicines, including those of Ayurvedic, Unani, Herbal and Homoeopathic systems.



Photo Credit : [www.photos-public-domain.com](http://www.photos-public-domain.com)

At present, there are 35 district offices under the DGDA. All the officers of the DGDA function as "Drug Inspector" pursuant to the drug laws, and assist the Licensing Authority for undertaking the respective responsibilities. A number of Committees also advise the Licensing Authority. These include the Drug Control Committee (DCC), Standing Committee for imports of raw materials and finished drugs, Pricing Committee and a number of other relevant committees.

Health Engineering Department (HED), the engineering outfit of the Ministry of Health and Family Welfare (MOHFW), began as full-fledged directorate on 22 March 2010. It is entrusted with new construction, upgrades, repairs and renovation under the development and revenue budgets.

# Major Health Information Sources in Bangladesh

To do their jobs effectively, health journalists must be able to use data in their reporting. Data help journalists and public health professionals identify problems and trends. Statistics also enable us to put stories in context – to show how widespread health problems are and what population and geographic groups are affected. As a result, they show where journalists should concentrate their reporting, and they help policy-makers and public health experts design programs to improve health. In Bangladesh, many journalists do not know how to find accurate and useful health-related data. This present chapter describes health information sources that may be easily accessed and used to prepare stories on health, population and nutrition issues in Bangladesh.

## Bangladesh Demographic Health Survey (BDHS)

Demographic and Health Surveys (DHS) are widely respected nationally-representative household surveys that provide data for monitoring indicators in population, health, and nutrition. Funded by USAID and other donors, the DHS are carried out in more than 90 countries and are used to measure countries' success in meeting Millennium Development Goals and other health targets. Bangladesh has implemented six DHS: 1993-94, 1996-97, 1999-2000, 2004, 2007, and 2011, providing trend data to measure improvements in public health. The Bangladesh DHS is a very valuable source of national and divisional information and serves as the baseline for evaluating the Government's success in meeting more than one-third of the targets in the HPNSDP.

For more information on the DHS, go to <http://www.measuredhs.com>

## Bangladesh Maternal Mortality and Health Care Survey (BMMS)

The 2010 Bangladesh Maternal Health Services and Maternal Mortality Survey (BMMS) is a nationally representative sample survey on maternal mortality, causes of maternal and non-maternal deaths, and perception, experience, and use of maternal health care in Bangladesh.

The BMMS 2010 can be accessed from <http://www.niport.gov.bd/research-download.php>.

## Multiple Indicator Cluster Survey (MICS)

The Multiple Indicator Cluster Survey (MICS) is a household survey developed by UNICEF in the mid 1990's to assist countries in filling data gaps for monitoring the situation of children and women. The most recent MICS in Bangladesh, known, Progotir Pathey, was conducted in 2009.

The Multiple Indicator Cluster Survey can be accessed via this link: [http://www.unicef.org/bangladesh/knowledgecentre\\_6292.htm](http://www.unicef.org/bangladesh/knowledgecentre_6292.htm).

*Photo Credit: aomywork.blogspot.com*





Photo Credit : ebangladesh.org

## Household Income and Expenditure Survey (HIES)

Household Income and Expenditure Survey (HIES), also commonly known as Household Budget Surveys (HBS) or Living Condition Survey, collects data on the flow of monetary and non monetary resources of households and individuals. These surveys are usually nationally representative, conducted on a regular basis and frequently contain a panel sample. The core of HIES is a detailed accounting of expenditures on food, goods and services, utilities, health care, and education, often captured through weekly or monthly diaries kept by participants. HIES can also contain modules on education, health, fertility, healthcare access and use, ownership of assets, and housing conditions. Data from HIES can be used to measure poverty, inequality, and standards and levels of living. The latest Household Income and Expenditure Survey (2010) can be accessed from: <http://www.bbs.gov.bd/PageWebMenuContent.aspx?MenuKey=320>.

## Census

A census systematically acquires information about the members of a given population and is usually carried out every 10 years. The national census provides basic information on the total population and household distribution in a country. In Bangladesh, the Bangladesh Bureau of Statistics (BBS) conducted population censuses in 1974, 1981, 1991, 2001, and 2011: <http://www.bbs.gov.bd/.../userfiles/.../PHC2011Preliminary%20Result.pdf>

## The Health Information System (HIS) of Director General of Health Services (DGHS)

The new health sector program reformulated the management information system (MIS) under the DGHS, including components of ehealth and Medical Biotechnology (MBT). The HIS is an organizational framework for collecting, reporting and collating indicators, producing performance reviews, and developing a functional, responsive, and timely routine HIS report. The new HIS is also on its way to developing a population health registry through Geographical Reconnaissance (GR). In this process, the community clinics, union facilities, union parishads and upazila health system will be linked with the population-based information system. The recent and most updated government approved information can be accessed from <http://dghs.gov.bd/en/index.php/publication> and <http://dghs.gov.bd/en/index.php/important-documents-software-menu>

## Management Information System (MIS) of Directorate General of Family Planning

Management Information System (MIS) of the Directorate General of Family Planning delivers performance statistics on family planning issues around the country. This has become one the strongest management tools available to program managers. The MIS covers service statistics, health worker visits. And data on current use of contraceptives recorded continuously in the Field Workers Record Keeping Book (FWA Register). Besides, pregnancy estimates, births and deaths (all deaths) vaccination status of mothers and children and monthly stock balance of contraceptives, etc. are recorded through MIS.

In addition, the DGFP MIS also accounts for logistics and supply system which tracks stock outs, desired inventory level and shelf life of major life-saving drugs and contraceptives.

Social and medical sciences rely on tables, charts, and figures to show study results, national and sub national data, and population-based information. Journalists must be able to read and interpret these tables to report accurately. Tables also provide a lot of information, not necessarily described in the text of a report that can improve stories and yield new ideas. In this chapter we will learn about how to read tables and for this we will be using tables from the latest Bangladesh DHS 2011.

### Example 1 : Current Use of Contraception A Question Asked of a Subgroup of Survey Respondents

#### Step 1

Read the title and subtitle. They tell you the topic and the specific population group being described. In this case, the table is about current use of contraception by currently married women age 15-49. This is a subgroup of survey respondents.

#### Step 2

Scan the column headings—the top horizontal row. They describe how the information is categorized. In this case, each column represents a contraceptive method: any method, any modern method, and any traditional method. The last column lists the number of women interviewed.

#### Step 3

Scan the row headings—the first vertical column. These show the different ways the data are divided into categories based on population characteristics. In this case, the table presents contraceptive use among married women by their age, number of living children, urban-rural residence, division of residence, educational level, and wealth. Most of the tables in DHS reports will be divided into these same categories.

#### Step 4

Look at the very last row at the bottom of the table. These percentages represent the totals of all married women age 15-49 who are currently using a method of contraception. In this case, 61.2% of currently married women age 15-49 are currently using any method of contraception, 52.1% are using any modern method, and 9.2% are using any traditional method.

#### Step 5

To find out what percentage of married women with no education are currently using a modern contraceptive method, draw two imaginary lines, as shown on the table. This shows that 50.2% of married women age 15-49 with no education are currently using a modern method of contraception.

Table 5 Current use of contraception

Percent distribution of currently married women age 15-49 by contraceptive method currently used, according to background characteristics, Bangladesh 2011

Background characteristic	2	Any method	Any modern method	Any traditional method	Number of women
<b>Age</b>					
15-19		47.1	42.4	4.7	1,925
20-24	3	57.9	53.4	4.5	3,396
25-29		65.8	60.0	5.8	3,262
30-34		70.7	61.0	9.8	2,532
35-39		71.7	56.9	14.8	2,081
40-44		63.6	46.0	17.7	1,937
45-49		43.1	30.4	12.8	1,501
<b>Living children</b>					
0		32.5	26.8	5.7	1,268
1		55.7	49.8	5.9	3,740
2		68.5	60.3	8.2	4,886
3		68.3	57.6	10.7	3,365
4+		60.5	46.5	14.0	3,377
<b>Residence</b>					
Urban		64.0	54.0	10.0	4,292
Rural		60.3	51.4	8.9	12,343
<b>Division</b>					
Barisal		64.7	54.5	10.1	952
Chittagong		51.4	44.5	6.9	3,015
Dhaka		61.0	51.1	9.9	5,334
Khulna		66.7	56.1	10.6	1,996
Rajshahi		67.3	58.3	9.1	2,526
Rangpur		69.4	60.7	8.7	1,927
Sylhet		44.8	35.2	9.6	884
<b>Education</b>					
No education		61.4	50.2	11.2	4,379
Primary incomplete		64.2	53.5	10.7	3,056
Primary complete		59.6	50.5	9.1	1,963
Secondary incomplete		59.0	52.9	6.1	5,176
Secondary complete or higher <sup>2</sup>		63.4	53.2	10.3	2,061
<b>Wealth quintile</b>					
Lowest		61.5	52.9	8.6	2,975
Second		62.9	53.8	9.2	3,267
Middle		61.4	52.1	9.3	3,372
Fourth		59.5	50.6	8.9	3,457
Highest		60.8	51.1	9.8	3,564
<b>Total</b>	4	61.2	52.1	9.2	16,635

**Practice:** Use this table to answer the following questions (answers are upside down, below):

- What percentage of married women age 40-44 are using a traditional method of contraception?
- In which division are married women least likely to use modern method of contraception?
- Compare married women with no living children to married women with four or more living children—which group is more likely to use any contraception?

a) 17.7%; b) Sylhet—35.2% Married women with four or more living children—60.5%

## Example 2: Treatment for Diarrhoea A Question Asked of a Subgroup of Survey Respondents

### Step 1

Read the title and subtitle. In this case, the table is about treatment of children under five who had diarrhoea during the two weeks preceding the survey.

### Step 2

Scan the column headings—the top horizontal row. In this case, the columns display the different treatment of children who had diarrhoea during the two weeks preceding the survey: percentage for whom advice or treatment was sought from a health facility or provider, percentage given fluid from oral rehydration salt (ORS) packet, and percentage given oral rehydration therapy (ORT), as well as the number of children with diarrhoea.

### Step 3

This table shows that there were 388 children under age five with diarrhoea during the two weeks preceding the survey (last number on bottom right). Once these children are divided into the background characteristics, there may be too few cases for the percentage to be reliable. For example, look at the percentage of children in Sylhet and Khulna who were given ORT. The percentage in Sylhet (87.6) is in parentheses. In Khulna, there is no number, only an asterisk. In DHS tables parentheses around a number means that data were collected from fewer than 50 children (unweighted). Readers should use this number with caution since it may not be accurate. An asterisk in a table means that data were collected from fewer than 25 children (unweighted)—too few to provide a reliable measurement.

### Step 4

When parentheses or asterisks are used in a table, the explanation will be noted under the table. If there are no parentheses or asterisks on a table, you can proceed with confidence that enough cases were included in all categories that the data are reliable.

Table 22 Treatment for diarrhoea

1

Among children under five who had diarrhoea during the two weeks preceding the survey, percentage for whom advice or treatment was sought from a health facility or provider, percentage given a fluid made from oral rehydration salt (ORS) packets, and percentage given oral rehydration therapy (ORT) by background characteristics, Bangladesh 2011

Background characteristic	Percentage for whom advice or treatment was sought from a health facility/provider	Percentage given fluid from ORS packet	Percentage given ORT	Number with diarrhoea
<b>Age in months</b>				
<6	(43.6)	(46.1)	(46.1)	25
6-11	30.1	73.4	76.2	73
12-23	27.0	75.7	77.7	109
24-35	22.6	88.5	91.3	63
36-47	9.7	81.6	89.0	65
48-59	25.3	84.5	86.3	52
<b>Sex</b>				
Male	24.8	82.2	84.1	215
Female	24.9	71.9	76.3	173
<b>Residence</b>				
Urban		84.4	86.5	70
Rural	45.4	76.1	79.3	318
<b>Division</b>	20.3			
Barisal	*	*	*	23
Chittagong	19.8	77.4	78.2	115
Dhaka	26.2	87.6	91.4	104
Khulna	*	*	*	20
Rajshahi	19.0	56.0	61.8	51
Rangpur	(30.9)	(80.8)	(86.8)	37
Sylhet	(35.3)	(84.7)	(87.6)	38
<b>Mother's education</b>				
No education	19.0	78.7	83.0	73
Primary incomplete	22.3	77.4	80.1	97
Primary complete	19.0	78.9	83.9	68
Secondary incomplete	29.0	73.0	75.3	114
Secondary complete or higher	(41.4)	(87.8)	(87.8)	35
<b>Wealth quintile</b>				
Lowest	19.5	81.2	84.2	108
Second	17.2	83.4	84.3	75
Middle	21.5	71.2	74.0	97
Fourth	(25.3)	(67.6)	(77.1)	49
Highest	49.4	82.3	83.3	59
Total	24.8	77.6	80.6	388

**Note:** Figures in parentheses are based on 25 to 49 unweighted cases.

An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed

4

**Practice:** Use this table to answer the following questions (answers are upside down, below):

- Is care seeking more common for urban or rural children?
- What percentage of children age <6 months were given fluid from ORS packet?
- What percentage of children in Barisal were given ORT?

(a) Urban—45.4%; (b) 46.1%; however, this figure is in parentheses which means that the figure is based on less than 50 children with diarrhoea, so it must be used with caution;

(c) the asterisk means that the number cannot be determined because less than 25 children had diarrhoea in Barisal.



## Example 3: Prevalence and Prompt Treatment of Fever A Question Asked of a Subgroup of Survey Respondents

### Step 1

Read the title and subtitle. In this case, the table is about two separate groups of children: (a) all children under age five and (b) children under age five who had symptoms of acute respiratory infection (ARI) in the two weeks preceding the survey.

### Step 2

Identify the two panels. First identify the columns that refer to all children under five (a), and then identify the columns that refer only to the children under five who had symptoms of ARI in the two weeks preceding the survey (b).

### Step 3

Look at the first panel. What percentage of children under five had symptoms of ARI? It's 5.8%

### Step 4

Answer the following questions to understand how prevalence and treatment of ARI among children vary in Bangladesh: Now look at the second panel. How many children under five are included in this group? Only 486 or 5.8% of 8,395 children under five who had symptoms of ARI. The second panel is a subgroup of the first

- What are the lowest and the highest percentages (range) of children with symptoms of ARI within the divisions? Prevalence of ARI ranges from a low of 4.6% in Dhaka to a high of 7.4% in Chittagong.
- Look for patterns: Does prevalence of ARI or treatment of ARI vary within specific populations? For example, is there a clear pattern of ARI prevalence or treatment by wealth? By mother's level of education? By gender? The prevalence of ARI is highest among the poorest households and lowest among the wealthiest households. Treatment of ARI follows the opposite pattern—much higher in the wealthiest households than in the poorest household. The same patterns are found with mother's education. Male children are slightly more likely to have symptoms of ARI than girl children (6.6% vs. 5.0%) but much more likely to receive medical treatment and antibiotics than girls.

Table 21 Prevalence and treatment of symptoms of ARI

Among children under age five, the percentage who had symptoms of acute respiratory infection (ARI) in the two weeks preceding the survey and among children with symptoms of ARI, the percentage for whom advice or treatment was sought from a health facility or provider and the percentage who received antibiotics as treatment, according to background characteristics, Bangladesh 2011

Background characteristic	Among children under age five:		Among children under age Five with symptoms of ARI:		
	Percentage with symptoms of ARI	Number of children	Percentage for whom advice or treatment was sought from a health facility or provider	Percentage who received antibiotics	Number of children
<b>Age in months</b>					
<6	6.2	816	(39.8)	(39.1)	51
6-11	7.4	864	42.8	41.8	64
12-23	6.9	1,547	41.4	78.0	106
24-35	6.1	1,545	36.1	62.4	95
36-47	4.9	1,866	29.8	76.1	91
48-59	4.5	1,757	22.7	61.0	98
<b>Sex</b>					
Male	6.6	4,271	39.5	75.7	281
Female	5.0	4,124	29.3	65.6	205
<b>Residence</b>					
Urban	4.8	1,871	54.3	77.5	89
Rural	6.1	6,524	30.9	70.1	397
<b>Division</b>					
Barisal	7.0	464	40.1	69.8	33
Chittagong	7.4	1,946	24.3	69.5	144
Dhaka	4.6	2,601	38.0	72.2	121
Khulna	6.4	767	45.4	73.5	49
Rajshahi	5.5	1,087	31.1	73.6	59
Rangpur	5.4	891	46.6	71.0	48
Sylhet	4.9	639	43.2	72.3	32
<b>Mother's education</b>					
No education	6.9	1,689	25.4	63.4	116
Primary incomplete	6.4	1,526	28.6	76.3	98
Primary complete	5.4	1,050	31.5	78.7	57
Secondary incomplete	5.2	3,112	39.7	70.6	161
Secondary complete or higher	5.4	1,017	58.4	74.7	55
<b>Wealth quintile</b>					
Lowest	7.3	1,965	24.7	69.4	143
Second	5.4	1,700	30.3	73.9	92
Middle	5.9	1,631	28.8	66.0	97
Fourth	4.8	1,617	46.2	67.4	77
Highest	5.1	1,481	57.9	83.3	76
<b>Total</b>	5.8	8,395	35.2	71.4	486

## Example 4: Knowledge of AIDS

### Comparing Data and Understanding Patterns

#### Step 1

Read the title and subtitle. In this case, the table is about knowledge of AIDS among ever-married women and men age 15-49 in Bangladesh. This is an example of a table with two different populations.

#### Step 2

Identify the two panels. First identify the columns that refer to women (a), and then identify the columns that refer to men (b). Both panels represent percentage of women and men who have ever heard of AIDS and the number of women and men interviewed.

#### Step 3

Scan the row headings—the first vertical column. These show the different ways the data are divided into categories based on population characteristics. This table presents knowledge of AIDS by age, marital status, urban-rural residence, division of residence, educational level, and wealth. The data in these categories will help you understand how knowledge of AIDS varies throughout the country. Most of the tables in DHS reports will be divided into the same categories.

#### Step 4

Answer the following questions to understand how knowledge of AIDS varies throughout the population:

- What are the lowest and the highest percentages of women and men who have heard of AIDS (range) within the divisions? Knowledge of AIDS among women ranges from a low of 54.9% in Rangpur to a high of 79.1% in Khulna; among men, from a low of 77.0% in Rangpur to a high of 94.8% in Khulna.
- Look for patterns: Does knowledge of AIDS vary within specific populations? For example, is there a clear pattern of knowledge of AIDS by age? By wealth? By education?
- Compare different groups: Do men know more about AIDS than women? Is one age group more knowledgeable than any other?

#### Step 5

Why is this important? Program managers can use this information to develop effective programs. For example, women are clearly less knowledgeable about AIDS than men, and residents of Rangpur are less informed than men and women in other divisions. Women and men with no education and those who are living in the poorest households are the least likely to know about AIDS. Education programs should be targeted towards these populations.

Table 27 Knowledge of AIDS

1

Percentage of ever-married women and ever-married men age 15-49 who have heard of AIDS, by background characteristics, Bangladesh 2011

Background characteristic	Ever-married women		Ever-married men	
	Have heard of AIDS	Number of women	Have heard of AIDS	Number of men
<b>Age</b>				
15- 24	77.3	5,,484	90.2	270
15- 19	75.1	1,970	*	21
20- 24	78.5	3,514	91.2	249
25- 29	74.7	3,394	92.0	621
30- 39	67.2	4,900	90.0	1,285
40- 49	55.3	3,971	82.3	1,215
<b>Marital status</b>				
Married	69.9	16,635	87.7	3,360
Divorced/separated/widowed	57.0	1,114	(81.5)	31
<b>Residence</b>				
Urban	85.6	4,619	95.6	949
Rural	63.3	13,130	84.5	2442
<b>Division</b>				
Barisal	70.7	1,002	87.1	174
Chittagong	68.6	3,222	86.4	519
Dhaka	75.1	5,736	92.0	1,095
Khulna	79.1	2,139	94.8	430
Rajshahi	62.9	2,646	84.9	556
Rangpur	54.9	2,039	77.0	442
Sylhet	58.1	967	82.3	175
<b>Education</b>				
No education				
Primary incomplete	40.3	4,912	70.4	890
Primary complete <sup>1</sup>	59.3	3,264	86.4	823
Secondary incomplete	71.8	2,062	94.1	305
Secondary complete or higher <sup>2</sup>	88.4	5,383	96.8	758
	99.1	2,127	99.5	615
<b>Wealth Index quintile</b>				
Lowest	43.1	3,250	71.3	654
Second	53.6	3,487	81.0	666
Middle	69.6	3,567	90.9	647
Fourth	81.2	3,664	94.3	726
Highest	93.2	3,781	99.2	699
Total 15-49	69.1	17,749	87.6	3,392

Note: Figures in parentheses are based on 25 to 49 un-weighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been sup-pressed

# CHAPTER 07

## Tips for successful writing – from Blogs to Traditional News Reporting

### Approaches to Finding Topics

*Current local or global health-related events . . .*

*Findings in public health research . . .*

*The changing and challenging health service system . . .*

*The near-endless array of diseases and treatments . . .*

*Health concerns relevant to the local population . . .*

Health writers hardly lack subject matter. The challenge is to figure out how to turn information into good stories. Two approaches can work well for finding stories. One is to start with questions that people want or need to have answered, as indicated by current events and the reporter's direct knowledge of an issue. The second is to start by identifying health information available in reports, such as those described in Chapter 4, and then to present it in ways that will be meaningful to your audience. Both approaches

require identifying accurate information to present in a way that most people can understand. New information on which to base health writing is always emerging. To evaluate information you find during your research, consider these three basic questions:

- First, is it true? Confirm your facts! Does the researcher cite common, respected, professional references--(World Health Organization, for example, as opposed to a casual blog site? Evidence-based findings are the gold-standard for accuracy in health information. The web sites recommended in this handbook all contain such high-quality information. In addition, look for possible bias on the part of those publishing the findings. A report funded by a medical-services supplier, for instance, should be viewed with skepticism, while one published by a scholar or an independent research organization may be more objective and fact-based. But even independent researchers sometimes exaggerate their findings. So ask yourself: Do the researcher's findings

solidly support the conclusions? And has a news release overstated the findings? Finally, especially on contentious issues, seek the views of other experts so that your story is balanced.

- Second, is it new? Journalists are in the "news" business. Sometimes, what is "news" is obvious – for instance, enactment of a new law or program, release of funds, appointment of government officials. But other times, judgment is required based on experience or – especially if you are new to the health beat – a little background research. You should routinely check your own media house's archives to see what has been reported previously on a given topic. It also is a good idea to ask sources themselves what is new about what they are saying; they probably know the topic better than you, and can give you expert guidance. Finally, news often is defined by public expectations: a development that



Photo Credit: [www.mozakdesign.com](http://www.mozakdesign.com)

is unexpected or runs contrary to what many people believe is, almost by definition, “news.” In fact, some things can be considered new if they are not well known, even if they are not strictly new. For example, a research finding may have been announced weeks or even months ago in a professional journal, but if readers or viewers are unaware of the finding, it may be sufficiently fresh.

- Third, is the information important? Often, there is no absolute answer to this question. Information obviously is important if it affects people’s health, well-being or quality of life. It also is important if it sheds light on health policies, whether funds are being spent efficiently and to good effect, or whether strategies are working or are not working. Information also is important if it advances public knowledge about issues of concern; many times, the best health journalism occurs when new information emerges to help answer long-standing questions.

## Saving Ideas

Reporters often come up with information that has some significance, but the time may not be right to pursue it. A finding may be too preliminary, or adequate information may still be lacking on a question of interest. If you come across something of interest, then you might want to save your ideas by writing the ideas into files. You might even find it useful to keep three types of idea files:



Photo Credit : eminence

- One for mere glimmers of ideas
- Others for ideas that are more developed
- One for stories in progress to be pitched to your editor

Such files contain reminders of various ideas you may wish to pursue. The reminders may vary in form from a news release you find intriguing, to a journal article on a topic you think bears exploring, to notes from a talk by someone you may wish to profile, to jottings of story ideas that occurred to you after hearing acquaintances discuss medical concerns, to a recent global report that you could tie to local issues. When you are seeking story ideas, or when new developments make old topics timely, consult your story files. You may be off to a running start!

## Information-Gathering Strategy

Health journalism requires thorough research – research that is deep enough to yield sufficient understanding and ensure that the information reported is solid and broad enough to provide adequate context. As you do your research, keep careful notes on the sources you use and the information you obtain. Two basic principles can aid in gathering information for health journalism efficiently and smoothly: begin with less technical sources and then move to more technical ones, and start with written sources, which may be either printed or electronic, and then move to human sources.

## Identifying People to Interview

In gathering information for your story, you should identify people to interview. Contacts with associations and institutions will likely yield suggestions of people who would be valuable contributors. Internet searches and consultations with colleagues can help round out lists of potential interview candidates. But be sure to assess each source's reliability and credibility: as a journalist, you are responsible for ensuring that information you pass on is accurate, and that possible bias among sources is disclosed to your readers and audience so they can make informed judgments about what the sources say.



Photo Credit: [www.wired-and-inspired.ca](http://www.wired-and-inspired.ca)

As you gain experience as a health journalist, you will develop your own group of favorite sources: people who are knowledgeable, articulate and ready to talk. Favorite sources may include press contacts within units of the Ministry of Health, local experts on disease control and prevention, respected doctors, local clinicians and pharmacists, health-based program managers at non-governmental organizations like the International Centre for Diarrheal Disease Research, Bangladesh (ICDDR) or UNICEF. Keep in mind not to overuse them, though. The health community is a large one; let many voices be heard.

In fact, it is important to cultivate a diversity of sources. These include:

**Government officials:** Often, government agencies designate official spokespeople. You should get to know them and use them as sources whenever you need to report the official government position. But don't stop with official spokespeople. You should strive to talk directly to officials, stressing to spokespeople that this is the only way to ensure credibility. You also should cultivate relationships with government employees below those in top positions. Often, the second or third-tier officials know more about a specific topic than top administrators, who have too many concerns to delve as deeply into specific subjects. Also, if you establish relationships of trust, you will find that they often will tell you more than the official position (although you may have to protect them by not identifying them by name). Lower level government officials also can be good sources of tips for news that is coming up.

**Experts:** The two most important things to understand about experts are that they are busy and often wary of journalists. The solutions are to do your homework so you can interview them quickly and convince them that you are knowledgeable enough to produce accurate stories. Beyond that, you should demonstrate your interest and commitment to solid reporting by giving them all the time they require answering you, listening carefully to what they say, and asking pertinent follow-up questions. In some cases, if experts are wary of you or express skepticism about the press, calmly explain that you have many readers or listeners who care about the issues you are discussing, and that your goal is to help them. But above all else, remember this: Listen. Experts don't have the time or interest to listen to your own views on the subject. You should ask questions, but interviews are about their views and information.

**Everyday people:** In most cases, stories are incomplete unless they include the perspective of ordinary people. This includes people who are directly affected by the subject of your story – people who suffer a disease you are writing about, for instance, or those who stand to gain or lose from a particular policy. But it also includes interested bystanders. One of the key roles of journalists is to encourage public discussion of issues; often – especially when policy questions are being covered – that only happens if you include views of a broad cross-section of people.

Journalists frequently rely on experts like health-care providers or associations to connect us with ordinary people. There is nothing wrong with this. It can be especially difficult to find people who have particular medical conditions without such help, for instance. Health providers often are reluctant to introduce you to such sources because they have an ethical responsibility to protect people's confidentiality. But doctors and other health professionals often will respond if you ask them to ask a patient if he or she will be willing to talk to a reporter; if the response is positive, you have a good source.

**One word of warning:** Expert sources may introduce you only to ordinary people who will support their views. So don't rely on them alone. Try to find your own sources. If an NGO takes you to visit a community, for instance, interview the people they introduce to you, but insist on finding some sources of your own too.

## Tips on Interviewing

Interviewing people might sound really easy, but it actually gets quite tricky sometimes. Here are some tips:

**Decide on the Interview Medium:** Before jumping into an interview consider the best medium for the interview. Each medium has advantages and disadvantages.



- Telephone interviews are less time-consuming and can be more spontaneous. They also are obviously one of the best ways to interview people who are far away. But while they are a good way to get a quick quote or some basic factual information, they have drawbacks: nuances can be lost, and sometimes you can misinterpret a person when not meeting face-to-face.



Photo Credit: [www.businesspundit.com](http://www.businesspundit.com)

- Written media (letter or e-mail), work well for gaining straightforward questions and having exact quotes, but they do not permit spontaneous responses, and can be inefficient if you have to ask many follow-up questions.
- In person interviews can yield many insights, materials and details. They are the best way to build trust with a source, so they offer the best chance to get information that may otherwise be unavailable. Wherever possible, you should rely on this approach, especially for stories that are complex or sensitive. But in-person interviews can be very time-consuming, so you can use other approaches for more straightforward or routine stories.

Prepare, Sources, especially experts, are busy and reluctant to give their time to reporters they think will get the story wrong. So spend some time reading about your topic, and check previous stories, so that you can show sources that you know what you are talking about. That doesn't mean you have to be an expert yourself; you just have to be ready to ask appropriate questions and demonstrate that you can understand what the experts are saying and can report it accurately. Before you conduct an interview, you should:

- Brief yourself well on the topic, gaps or inconsistencies in what you have learned so far, and the role and responsibility of the person whom you are interviewing as it relates to the issue;
- Review your notes;
- Develop a list of questions, but remain flexible to pursue unexpected leads;
- Remember, as an interviewer your main task is to listen.

During the interview: There are some things you might need to remember during an interview session:

- Be polite; and be a good listener;
- Do not rush in with a new question if the person you are interviewing hesitates;
- Ask open-ended questions – ones that encourage a person to expound on a topic. Questions that only require a “yes” or “no” answer, or that require simple answers, rarely yield much interesting information;
- Give the person sufficient time to think and offer their answer;
- Make sure the person feels his or her views have been fully aired. One good technique is to ask, at the end of the interview, if there is anything else that you should have covered.

Following Up: When you are done with the interview you might want to:

- Review your notes;
- If you tape-recorded the interview, check the tape and transcribe material of interest;
- Thank the interviewee for their time and let them know when the story may run.
- Ask if you can call or write them for more information if further questions arise.

## Covering Research

Literally thousands of health-related research findings are reported every year, many of them highly technical and difficult to interpret. A health journalist has to wade through the jargon – and, frequently, exaggeration – to find the news and report on it accurately. Here are a few things to consider:

*Photo Credit : jessicamudditt.com*



Who paid for the research, and who profits from it? The sale of drugs and medical products is a huge business, and the companies often pay for research that will help them promote these products. Always check to see who paid for a study. Research by credible, independent organizations like universities is usually more reliable than research done by private, profit-seeking companies. Also, tell your readers or audience how a study is funded, so they can judge its credibility for themselves.

Is the scientist likely to profit from the sale of any products related to his work? Often, researchers themselves stand to gain by use of certain medical products or adoption certain medical procedures. You should examine this question, and tell readers what you find.

What do other researchers and experts think of the research and its findings? Interview or check online for what other experts are saying. Research published in peer-reviewed journals like the Lancet ([www.lancet.com](http://www.lancet.com)) or the Journal of the American Medical Association ([www.jamanetwork.com](http://www.jamanetwork.com)) generally is more credible than research that has not been reviewed. Consulting other experts has other benefits for the journalists: you may find new sources and new stories, or you may dig up controversies that make for more interesting and important stories than an individual research finding.

Are the conclusions justified based on the research? Researchers sometimes exaggerate the importance or significant of their findings to draw attention to themselves or attract additional funding. So when scrutinizing research reports, see if the conclusions the experts research are supported by the actual research findings. For instance, just because researchers observe that two issues are associated with each other that do not necessary prove that one factor caused the other. Because of the uncertainty, scientists value “randomized, controlled” studies, in which individuals are chosen at random to receive a specific treatment, and the results are compared to those for a “control” group that receives no treatment. Clinical trials of new medicines or treatments are conducted as randomized controlled experiments following strict procedures; you should understand this process any time you report on clinical trials ([www.clinicaltrials.com](http://www.clinicaltrials.com)).

What is the sample? Researchers base their conclusions on a sample or study population. In general, larger samples provide more reliable results. Check to see if the study sample is selected randomly, making it less biased and more representative of the larger population under study.

Put research findings into context. Scientific research moves in small, incremental steps. To help your audience make sense of a scientific finding (and to determine what is really new and significant about it), you should explain what research preceded it. How does a new study change what we know or believe to be true? If you have the opportunity to interview the scientist who performed the research, ask why he or she performed the study, what was surprising about the findings, and what further research is needed based on the latest findings.

Avoid jargon. Scientists use technical terms that mean a lot to them but that most people do not understand. Journalists should find everyday terms, or include definitions for technical terms in their studies.



Photo Credit : [www.honeyhospital.com](http://www.honeyhospital.com)

## The Art of Writing

While every writer understandably wants to develop an individual style, consistency in matters ranging from spelling to word usage and format helps readers. Check with your own publication to see if they have their own stylebook or follow one of the common ones. Some style guides for English prose can be found online, including William Strunk and E.B.

White's revered "Elements of Style" ([www.bartleby.com/141/](http://www.bartleby.com/141/)). The British newspaper, the Guardian, has put its style guide online (<http://www.guardian.co.uk/style/guide>), as has America's National Geographic magazine (<http://stylemanual.ngs.org/>). An excellent manual on feature writing is "The Art and Craft of Feature Writing," by former Wall Street Journal writer William Blundell.



*Photo Credit: indigoandart.blogspot.com*

## Writing and the Internet

Today, journalists must write for more than traditional newspapers or broadcast outlets. Blogs and other forms of website writing are now very much in style. Successful writers have to produce compelling and engaging content for many different media.

Exactly how this is done will vary from writer to writer, as everyone has his own style. But some basic principles of writing great content might be worth keeping in mind.

One fact about writing, especially content for the web, is that people don't stay on any page for very long. Usually, readers look at a page and decide within a few seconds if it's worth reading further or if they should turn a page or click away to something else. So your articles or blog posts should

be written and formatted in a way that makes them not only visually appealing, but also readable for your intended audience. Make sure your visitors know what you're writing about immediately by following the tips below for creating readable blog posts.

Titles are important. The first things your audience will notice are the title of your piece. While it's great to use clever titles sometimes, the most important thing is to be clear and concise, so readers don't have to search very far to know what your blog posts are about. Grab the reader's attention and curiosity about how this piece of information relates to him or her.



*Photo Credit: teachingcollegeenglish.com*

Mark your Headings. Make your content more readable by breaking it into smaller pieces with clear sub-headlines for each section. If writing a blog, remember that search engines weigh titles more heavily than the content of each post, so take some time to consider search engine optimization when you name your posts. Make your headings relevant, clear and search engine friendly.

Make Lists. Bulleted and equally well in turning published as long readable content that the whenever you can to text.

Use boldface and italics and italics work very well specific text within your become useless when drawing attention to the

of your post, they make your post cluttered and more difficult to read. Boxes or pull quotes can focus attention on particularly interesting quotes, statistics or facts, giving the reader quick information and drawing him or her into reading more of the article.

Links are Important. When writing online, links can be very helpful in directing readers to more information. They're also helpful in search engine optimization because search engines weigh linked text higher than non-linked text. However, too many links can have a negative effect on the readability of your blog, just as too much bold or italics can. Use links but don't overuse them.

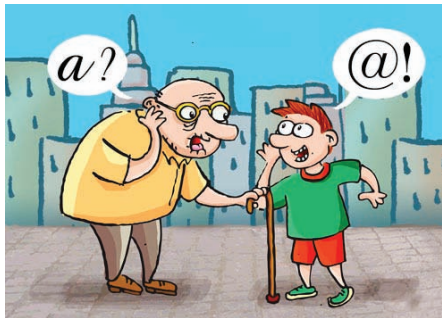


Photo Credit : [www.toonpool.com](http://www.toonpool.com)

numbered lists work text that could be paragraphs into easily view can skim. Use lists break up long blocks of

strategically. Boldface to draw attention to articles. But they overused; instead of most important parts

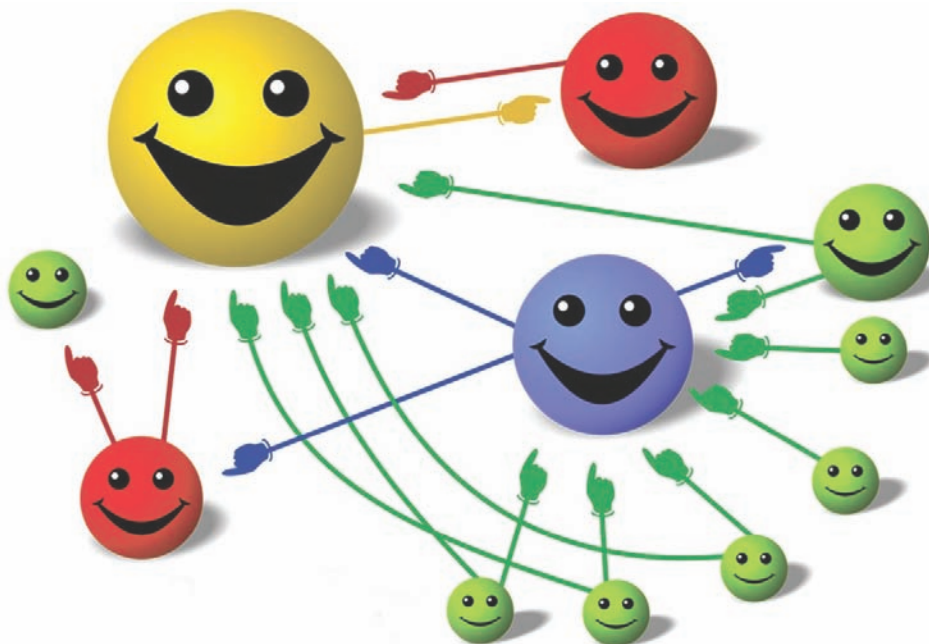


Photo Credit : [jajodia-saket.sjbn.co](http://jajodia-saket.sjbn.co)

Images speak louder than words. Images are a great way to break up a text heavy article. They can help draw attention to your work, and in blogs they help with search engine optimization. Don't use too many images though, or your reporting may get cluttered and your text too hard to read. While many websites offer free stock images, make sure you only use images that you have permission to publish. Take some time to learn about copyright and fair use laws before you publish images in your blog posts. A special tip to health journalists: All the images on Medline Plus ([www.medlineplus.gov](http://www.medlineplus.gov)), including numerous graphics illustrating health issues, can be used free of charge providing you acknowledge the source.

Remember ethical considerations when using images. It is critically important to use images in an ethical way. There are international standards for image publishing that should be followed, such as not revealing the face of a rape victim, HIV-positive clinic patient or child under 18 who has suffered abuse, just as you would not use their name in print to protect their identity. Identity protection and ethical use of images is particularly relevant when reporting on health issues, where privacy can be subjective. If you have any question whether using a photograph would violate patient privacy, ask yourself if you would be comfortable publishing such a picture of yourself or a family member. Sometimes, a journalist must find creative ways to depict an issue sensitively. Writers and photographers should work together when reporting to keep this in mind.

Write Short Paragraphs. Articles are easier to scan and read when paragraphs are short. In fact, in a blog, one-or two-sentence paragraphs are perfectly acceptable, and usually welcomed by blog visitors. Short paragraphs add white space and visual relief to text-heavy blog posts. Keep your writing concise!

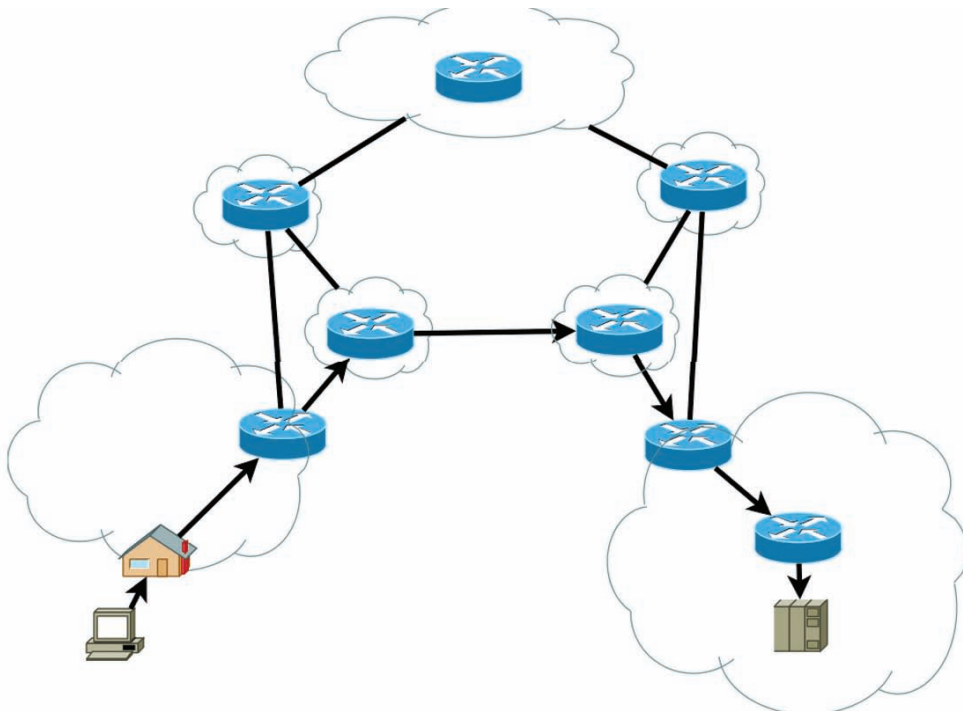


Photo Credit : unasinnott.com

In deciding whether to pursue a given topic or include a specific piece of sensitive information, journalists should consider the following questions:

- What good is likely to result from sharing this information?
- What harm could result?
- Is the information truthful?
- Are you able to provide a respectable source?
- Is the information represented in a fair, balanced and respectful way, or does it favor some people over others?
- Are there alternatives to consider?

Here are some guidelines for maintaining an ethical approach to health journalism:

## Accuracy

The highest responsibility a health journalist is to provide clear, current and accurate health information. Therefore:

- Always provide complete, truthful and well-substantiated information;
- Clearly define and communicate areas of controversy;
- Fairly represent conflicting points of view;
- Write in an objective way and label editorial comments and personal opinion as such;
- To the maximum extent possible, disclose sources of information;
- Understand that no one person has a monopoly on truth, that we can only search for data, events, issues and ideas to help readers and viewers form their own opinions.



Photo Credit: www.snapsurveys.com

## Content

In vetting content, you might follow the points below:

- Responsibly gather and communicate information that best serves the needs of the public;
- Strive to select content based on its positive health benefit;
- Strive to include the cost and quality of care in order to ensure comprehensiveness;
- Give readers and viewers a sense of why the story is important at this time, in this place. This includes deciding what is newsworthy, offering news in the public interest as well as news that interests the public.

## Independence

- Believe in freedom of the press and the public's right to know;
- Avoid participating in organizations that would compromise personal and professional integrity;
- Do not accept gifts or special privileges that would compromise independence or integrity;
- Disclose any and all financial arrangements that might be viewed as affecting independence or integrity.

## Personal Rights

- Support the inalienable rights of people in a free society;
- Acknowledge the right of each individual to privacy, dignity and confidentiality;
- Acknowledge the rights of people to question and challenge actions and ideas of other individuals and organizations;
- Acknowledge special responsibility to protect individuals from any behavior or practice that might be viewed as exploitative;
- Acknowledge the right of audience to have an interaction that is respectful, courteous and consistent with the ideals of medicine and journalism.



Photo Credit: www.btsd.us

## Professionalism



Photo Credit: www.emaofbc.com

- Public health policy is for all people, with full individual autonomy;
- Health care providers have special relationships with their patients, and journalists do not substitute diagnose or treat individuals;
- It is essential to portray the risks and benefits of any behavior, regimen or treatment, not only to present one side;
- It is important to delineate the possible outcomes to different approaches to care, including the repercussions of the absence of care.

## Journalism's Don'ts

The Don'ts for journalism are:

**Plagiarism:** Never use the words and ideas of another without giving credit to the source.

**Sloppy Reporting:** Don't fail to check the facts. Don't forget to check all sides of the story. Don't forget to verify. Don't overlook relevant details — the who, what, when, where, how and why — and the context in which stories arise.

**Bias:** Try to avoid it. Don't allow your news reports to be influenced by your own opinions. Even if you think you're right, let others make their case.





Some news people think that using certain deceptive tactics (e.g., hidden cameras) is acceptable if that is the only way to get an important story. Whenever deceptive tactics are used, many news organizations take pains to ensure they've exhausted all other possible means of getting the story. Journalists should check with higher-ups in their organizations before they resort to these methods and should be open about their techniques when the stories are reported.

**Lack of regard for privacy:** When to reveal facts of a personal nature about someone and many readers and viewers think you have invaded that person's privacy.

Most people believe they can control the information revealed about them. That is a reasonable expectation for people who live private lives – unless there is a compelling public need to know about their experiences. Some people— especially elected officials but also other “public figures” like movie stars and famous athletes — give up some of their privacy. In general, if information about a person is of interest to the public, it is thought to be newsworthy and “fair game” for reporters. However, news media sometimes face negative reactions from readers and viewers when they appear reckless in their pursuit of what is thought to be personal information about public people.



*Photo Credit : unasinnot.com*

For more ideas about health journalism ethics, here are a few of the many policies developed by various journalism organizations:

### The Association of Health Care Journalists

This American professional organization has developed a comprehensive set of principles, many of which apply to health journalists in particular: <http://healthjournalism.org/second-arypage-details.php?id=56>.

### Society of Professional Journalists

An ethics policy developed by one of the leading American professional journalism associations: <http://www.spj.org/ethicscode.asp>.

### Project for Ethics in Journalism

This nongovernment organization has a somewhat different approach to establishing ethics principles: <http://www.journalism.org/resources/principles>.

### The Guardian

Here is the ethics code of a leading newspaper in the UK: <http://image.guardian.co.uk/sys-files/Guardian/documents/2003/02/20/EditorialCode2.pdf>

### International Federation of Journalists

Child Rights and the Media <http://www.ifj.org/assets/docs/247/254/cf73bf7-c75e9fe.pdf>

### Reporting tools and health journalism handbooks:

WHO Handbook for journalists on Influenza: <http://www.who.int/mediacentre/news/new/2005/nw08/en/index.html>

Cochrane Library info for Journalists on Health Care: <http://www.rcpsych.ac.uk/press/informationforjournalists.aspx>

Covering HIV Epidemic: Commonwealth Health and Media Partnership: <http://www.healthandmedia.org/home/Reporting-tools/manuals>

Reporting on Violence: A Handbook for Journalists: <http://www.bmsg.org/pcvp/INDEX.SHTML>

Reporters Without Borders (with UNESCO) has compiled a Handbook for Journalists for those going to dangerous parts of the world, listing international norms protecting them and containing practical advice on how to stay alive and safe: [http://en.rsff.org/IMG/pdf/RSF\\_GUIDE\\_PRACTIQUE\\_GB\\_v6.pdf](http://en.rsff.org/IMG/pdf/RSF_GUIDE_PRACTIQUE_GB_v6.pdf)

Population Reports - Helping the News Media Tell the Family Planning Story: <http://info.k4health.org/pr/j42edsum.shtml#top>

A Journalists Guide to Researching and Writing Health Stories: <http://www.amwa.org/default/publications/journal/v14.1/vol.14.no.1.p32.feature.pdf>

Inter-news Health Journalism Resources: [http://www.internews.org/pubs/pubs\\_health.shtml](http://www.internews.org/pubs/pubs_health.shtml)

Teaching Radio Journalists to Report on HIV– A Manual for Trainers, edited by Mia Malan, September 2008; Audio files for "Teaching Radio Journalists to Report on HIV"

Population Reference Bureau (PRB) Population Handbook:

[http://www.prb.org/pdf/PopHandbook\\_Eng.pdf](http://www.prb.org/pdf/PopHandbook_Eng.pdf)

*More information by topic can be found:*

### **Maternal Newnatal and Child Health (MNCH)**

- The Bangladesh Demographic and Health Survey 2011-[www.niport.gov.bd/BDHS2011-PreliminaryReport.pdf](http://www.niport.gov.bd/BDHS2011-PreliminaryReport.pdf)
- Partnership for Maternal, Newborn and Child Health-[www.who.int/pmnch/en](http://www.who.int/pmnch/en)
- World Health Organization: Making Pregnancy Safer Initiative-[www.who.int/maternal-child-adolescent/en/](http://www.who.int/maternal-child-adolescent/en/)
- UNICEF 'State of the World's Children' and UNICEF Annual Report on Bangladesh-[www.unicef.org/sowc2013/report.html](http://www.unicef.org/sowc2013/report.html)

### **Acute Respiratory Infections and Pneumonia**

- The World Health Organization-[www.who.int](http://www.who.int)
- UNICEF Bangladesh-[www.unicef.org/bangladesh](http://www.unicef.org/bangladesh)

### **Water, Sanitation and Hygiene**

- The recent Bangladesh Demographic and Health Survey
- Bangladesh Demographic and Health Survey
- The World Health Organization
  - Water, Sanitation and Hygiene
  - Diarrhea
  - Cholera
  - Hygiene Resources
  - Sanitation Facts
- UNICEF
  - [http://www.unicef.org/health/index\\_43834.html](http://www.unicef.org/health/index_43834.html)
  - [http://www.unicef.org/wash/index\\_31600.html](http://www.unicef.org/wash/index_31600.html)
  - [http://www.unicef.org/media/media\\_21423.html](http://www.unicef.org/media/media_21423.html)
  - [http://www.who.int/water\\_sanitation\\_health/diseases/typhoid/en/](http://www.who.int/water_sanitation_health/diseases/typhoid/en/)

### **Malaria**

- Roll Back Malaria Partnership

## **Dengue**

- [The World Health Organization](#)

## **Vaccination and Immunization**

- [Bangladesh Demographic and Health Survey](#)
- [UNICEF](#)
- [The World Health Organization](#)
- [Fact Sheets for common immunizations](#)
  - [Pneumonia Fact Sheet-Pneumococcal-Infection/en/](#)
  - [Measles Fact Sheet-measles/en/](#)
  - [Meningitis Fact Sheet-topics/meningitis/en/](#)
  - [Polio Fact Sheet-www.who.int/topics/poliomyelitis/en/](#)
  - [Yellow Fever Fact Sheet-www.who.int/topics/yellow-fever/en/](#)
  - [Hepatitis B Fact Sheet-www.who.int/topics/hepatitis/en/](#)
  - [Hepatitis A Fact Sheet-www.who.int/mediacentre/factsheets/fs328/en](#)

## **Nutrition**

- [Bangladesh Demographic and Health Survey](#)
- [World Health Organization](#)
- [UNICEF, focus on micro-nutrients-www.unicef.org/nutrition/index-iodine.html](#)
- [UNICEF, focus on Breastfeeding's impact for child survival-www.unicef.org/childsurvival/index.html](#)

## **Tuberculosis**

- [Centers For Disease Control-www.cdc.gov/tb/](#)
- [World Health Organization](#)
  - [Factsheet-www.who.int/topics/tuberculosis/en/](#)
  - [Directly Observed Therapy-Short Course-www.who.int/tb/dots/en/](#)

## **Human Immunodeficiency Virus (HIV)**

- [UNICEF](#)
- [World Health Organization](#)
- [UNAIDS-www.unaids.org/en/](#)

## **Non Communicable Disease (NCD)**

- [World Health Organization](#)
- [Directorate General of Health Services-http://en.dghs.gov.bd](#)
- [Bangladesh NCD Network-www.bdncdnet.com](#)
- [National Institutes of Health-www.nih.gov](#)
- [Non Communicable Disease Forum-www.ncdf.info](#)

## **Road Safety**

- [World Health Organization](#)
- [Guardian UK Article-www.theguardian.com/UK](#)
- [Bangladesh Rural Advancement Committee-www.brac.net](#)

## Public Health Contacts in Bangladesh

- List of major International Health Organizations working in Bangladesh
- NGOAB list of all non governmental agencies working in Bangladesh

### **Name: Ministry of Health and Family Welfare**

Address: MoHFW, Bangladesh Secretariat  
Phone: 7160204  
Fax: 9559216  
E-mail: dsadmin@mohfw.gov.bd  
sasadmin2@mohfw.gov.bd  
Web: www.mohfw.gov.bd

### **Name: Directorate General of Family Planning**

Address: Directorate General of Family Planning, 6 Kawran Bazar, Dhaka-1215.  
Phone: 9119568, 9119463, 9119572, 9142642, 9135858  
Fax : 9124523  
E-mail: dgfpinfo@gmail.com  
Web: www.dgfp.gov.bd

### **Name: The Directorate General of Drug Administration**

Address: 105-106, Motijheel Commercial Area, Dhaka-1000,  
Phone: 9556126, 9553456  
E-mail: drugs@citech.net  
Web: www.dgda.gov.bd

### **Name: National Institute of Preventive and Social Medicine (NIPSOM)**

Address: Mohakhali  
Dhaka 1212, Bangladesh  
Phone: 8821236, 9898798  
Fax: 9898798  
E-mail: nipsom@dhaka.net,  
director@nipsom.org  
Web: www.nipsom.org

### **Name: Department of Public health Engineering (DPHE)**

Address: DPHE Bhavan, 14, Shaheed Captain Mansur Ali Sarani Kakrail, Dhaka-1000.  
Phone: 9343358  
Fax: 9343375  
E-mail: nuruzzaman@dphe.gov.bd  
Web: www.dphe.gov.bd

### **Name: Directorate General of Health Services**

Address: Mohakhali, Dhaka-1212  
Phone: 09899516  
Fax: 9886415  
Web: www.dghs.gov.bd

### **Name: Institute of Public Health Nutrition (IPHN)**

Address: Mohakhali  
Dhaka 1212, Bangladesh  
Phone: 8821361, 9899414  
Fax: 9898671  
E-mail: iphngovbd@geniusit.net,  
iphn@bangla.net  
Web: www.iphn.gov.bd

### **Name: Institute of Epidemiology, Disease Control & Research (IEDCR) & National Influenza Centre (NIC)**

Address: Mohakhali, Dhaka-1212.  
Phone: 8821237  
Fax: 8821237  
E-mail: info@iedcr.org, director@iedcr.org  
Web: www.iedcr.org

### **Name: National institute of Population Research and Training (NIPORT)**

Address: Azimpur, Dhaka  
Phone: 9662495, 8625251  
E-mail: info@niport.gov.bd;  
dg@niport.gov.bd; dg.niport77@gmail.com  
Web: www.niport.gov.bd

### **Name: Institute of Public Health (IPH)**

Address: Mohakhali, Dhaka 1212, Bangladesh  
Phone: 8828030  
E-mail: iph@dhaka.net

### **Name: Directorate of Nursing Services**

Address: DGHS, Mohakhali, Dhaka-1212.  
Phone: 9899516  
E-mail: info@dns.gov.bd  
Web: www.dns.gov.bd

**Name: Bangladesh Institute of Health Sciences**

Address: 125/1, Darus Salam Mirpur, Dhaka-1216  
Phone: 8055312, 9010654;  
Fax: 880-2-8611138  
E-mail: lali@dab-bd.org  
Web: www.bihs.edu.bd

**Name: ICDDR'B**

Address: Mohakhali, (GPO Box 128, Dhaka 1000) Dhaka 1212  
Phone: 9840523-32,  
Fax: 8819133, 8823116  
E-mail: director@icddr.org, info@icddr.org  
Web: www.icddr.org

**Name: National Institute of Cancer Research and Hospital**

Address: Mohakhali, Dhaka-1212  
Phone: 9661051-56, 9661058-60.  
E-mail: info@bsmmu.org, vc@bsmmu.org  
Web: www.bsmmu.org

**Name: Dhaka Medical College and Hospital**

Address: Ramna, Dhaka, Bangladesh  
Phone: 8626812 16  
Web: www.dmc.edu.bd

**Name: Institute of Child and Mother Health**

Address: Matuail, Dhaka-1362. Bangladesh  
Phone: 7542672, 7542673  
Fax: 7542672  
E-mail: info@icmh.org.bd; director@icmh.org.bd; support@icmh.org.bd; csd@icmh.org.bd  
Web: www.icmh.org.bd

**Name: Public Health Foundation, Bangladesh (PHFBD)**

Address: 85, South Bishil, Mirpur – 1 Dhaka – 1216.  
E-mail: secretariat@phfbd.org  
Web: www.phfbd.org

**Name: National Heart Foundation of Bangladesh**

Address: National Heart Foundation Hospital & Research Institute, Plot-7/2, Section-2, Mirpur, Dhaka-1216  
Phone: 8061314-6, 8053935-6,  
Fax: 9036694  
E-mail: admin@nhf.org.bd, nhfadmin@agni.com  
Web: www.nhf.org.bd

**Name: National Institute of Mental Health**

Address: Sher-e-Bangla Nagar, Dhaka, Bangladesh  
E-mail: webmaster@nimhbd.org  
Web: http://nimhbd.org/

**Name: Mymensingh Medical College, Mymensingh**

Address: Mymensingh Medical College, Mymensingh-2206,  
Phone: 091 66063;  
Fax: 091 66064  
E-mail: mmc@ac.dghs.gov.bd  
Web: http://www.mmc.gov.bd/

**Name: Rangpur Medical College, Rangpur**

Address: Jail Road, Dhap, Post Office: Rangpur-5400, Rangpur  
Phone: 0-521-62288  
Fax: 0-521-63388  
E-mail: rangmc@ac.dghs.gov.bd  
Web: http://rangpurmedical.webs.com/

**Name: Faridpur Medical College**

Address: Faridpur, Bangladesh  
Phone: 0 631 64911  
Web: www.fmcbd.org

**Name: Shaheed Ziaur Rahman Medical College**

Address: Bogra Sadar, Bogra- 5800  
Phone: 051-69965  
Fax: 051-61717  
E-mail: szmc@ac.dghs.gov.bd  
Web: www.szmcdbd.org

**Name: Pabna Medical College**

Address: Pabna, Bangladesh

Phone: 0731-66231, 65332

Fax: 0731-65581

E-mail: [pmc@ac.dghs.gov.bd](mailto:pmc@ac.dghs.gov.bd)

**Name: Rajshahi Medical College**

Address: Rajshahi Sadar, Rajshahi, Bangladesh

Phone: 0721 – 772150

Fax: +880 - 0721 - 772174

**Name: Shaheed Suhrawardi Medical College**

Address: Sher-E-Bangla Nagar, Dhaka-1207

Phone: 8144048

Fax: 9113673

Web: [www.shsmc.edu.bd](http://www.shsmc.edu.bd)

**Name: Dinajpur Medical College**

Address: New Town, Dinajpur, Bangladesh

Phone: 0531-61787

Fax: 0531-63820

E-mail: [dinajmc@ac.dghs.gov.bd](mailto:dinajmc@ac.dghs.gov.bd)

Web: [www.dinajmc.org](http://www.dinajmc.org)

**Name: MAG Osmani Medical College, Sylhet**

Address: Rikabi Bazar, Sylhet.

Phone: 0821-713667

E-mail: [osmanimedical@gmail.com](mailto:osmanimedical@gmail.com)

Web: [www.magosmanimedical.com](http://www.magosmanimedical.com)

**Name: Sher-E-Bangla Medical College**

Address: Aleakanda, Barisal

Phone: 0431-52151

Web: [www.sbmcc.edu.bd](http://www.sbmcc.edu.bd)

**Name: Cox`'s Bazar Medical College**

Address: Cox`s Bazar

Phone: 0341-51300

Fax: 0341-51301

E-mail: [coxmc@yahoo.com](mailto:coxmc@yahoo.com)

Web: <http://coxmc.edu.bd>

**Name: Chittagong Medical College**

Address: 57, KB. Fazlul Kader Road, Chawk-bazar, Chittagong, Bangladesh

Phone: 031-619400, 031-212155

E-mail: [info@cmc.edu.bd](mailto:info@cmc.edu.bd),

[rashedhasan\\_cmc@yahoo.com](mailto:rashedhasan_cmc@yahoo.com)

Web: [www.cmc.edu.bd](http://www.cmc.edu.bd)



Like other scientific fields, public health relies on technical vocabulary. To report on public health, journalists need to understand these technical terms and be able to translate them for the public. This glossary defines some terms commonly used in public health.

**Acute respiratory infection (ARI):** Potentially serious illness in children and older adults. ARI is measured in the DHS by the following symptoms: cough accompanied by short, rapid breathing at any time during the two weeks preceding the interview. ARI is considered a proxy for pneumonia.

**Anemia:** Lower than normal levels of hemoglobin (iron-carrying molecules) in the blood; anemia can lead to fatigue and increased risk of infection and hemorrhage. Severe anemia in children can damage learning ability.

**Antenatal care (ANC):** Visits to a nurse, midwife, or other trained health care provider at any time during pregnancy for health education, monitoring, and preventive and curative care related to pregnancy and childbirth. Most countries recommend at least four ANC visits with the first visit occurring in the first trimester (12 weeks) of pregnancy.

**Birth intervals:** Number of months between successive births to the same woman. Closely spaced births (less than 24 months apart) lead to higher infant and under-five mortality. The World Health Organization (WHO) now recommends 36 month (3-year) birth intervals.



*Photo Credit: www.canaryclaims.co.uk*

**Child mortality rate:** The probability of dying between age one and five, calculated as the number of children dying between age one and five (13 to 59 months) per 1,000 children surviving to 12 months of age.

**Contraceptive prevalence rate:** The percentage of currently married women of reproductive age (15-49) who are using contraception.

**Crude birth rate:** Number of live births per 1,000 population.

**Discordance of HIV infection:** When one member of a marriage or cohabiting partnership is infected with HIV and the other is not.

**Exclusive breastfeeding:** Providing a child with only breast milk and no other food or liquid, even water. The World Health Organization (WHO) recommends that children be exclusively breastfed for the first six months of life.

**Family planning:** Conscious effort by sexual partners to regulate the number and spacing of births through modern and/or traditional methods of contraception.

**Full immunization/vaccination:** Child has received all basic immunizations, including: BCG (against tuberculosis); three doses of DPT (diphtheria, pertussis, and tetanus), which may also be given as a pentavalent vaccine with Hepatitis B and Hib (haemophilus influenza type b); at least three doses of polio vaccine; and one dose of measles vaccine. Full vaccination is usually calculated for children age 12–23 months.

**Frequencies:** Arrangement of values from lowest to highest with a count of the number of observations sharing each value; the counts are often converted into a percentage of the total.

**Higher-risk sex:** Sexual practice that increases the risk of becoming infected with or transmitting HIV; defined as sex with more than one partner in the past year.

**HIV incidence:** The number of people contracting HIV infection in a year per 1,000 population. Incidence measures new cases of HIV infection in a given year.

**HIV prevalence:** The percentage of people in a population who are infected with HIV. Prevalence measures both new and ongoing cases of HIV infection.

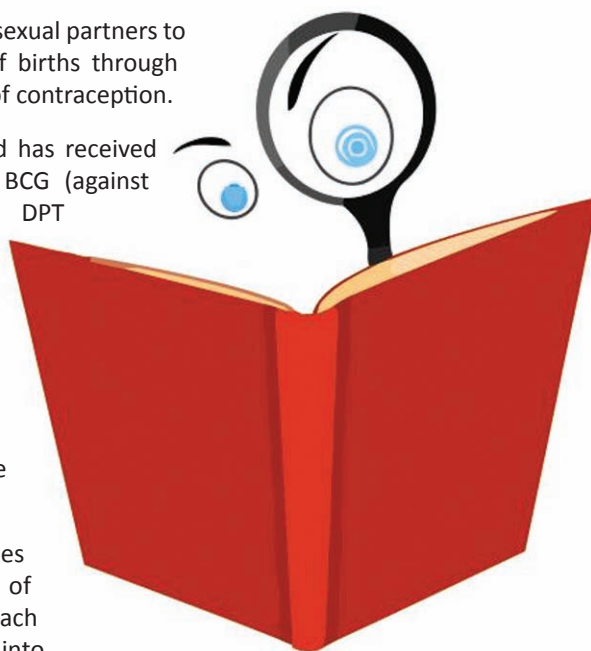
**Incidence:** Incidence rate is the pace or intensity of accumulation of new disease cases. In other words, incidence rate measures how fast a disease is spreading.

**Infant mortality rate:** Probability of dying between birth and age one; calculated as the number of deaths among infants under 12 months per 1,000 live births.

**Informed choice:** For a woman using modern contraceptive methods, being informed about the effectiveness of a method, potential side effects or problems of a method, and being told what to do if side effects or problems occur. In the case of sterilization, being told that the method prevents future childbearing.

**Informed consent:** For individuals who participate in the DHS or other research, informed consent means they have voluntarily agreed to participate in the study after the interviewer has clearly explained the purpose of the study, how the results will be used and any possible consequences to the study participant **because of his or her participation.**

**Intermittent preventive treatment (IPT):** Treating pregnant women with sulfadoxinepyrimethamine/ Fansidar (SP/Fansidar) to prevent malaria at least twice during antenatal visits.



*Photo Credit : security-made-easy.blogspot.com*

**Lactational amenorrhea method (LAM):** A family planning method in the first six months after birth and among women whose menstrual periods have not returned, exclusive breastfeeding at least every four hours during the day and at least every six hours at night.

**Male circumcision:** The removal of the foreskin of the penis for cultural, religious, or health reasons. Some studies have linked male circumcision with reduced risk of HIV transmission.

**Malnutrition:** A state of undernourishment or over-nourishment due to a lack of adequate macro- and micronutrient intake. Also known as under-nutrition.

**Maternal mortality rate:** Number of women who die during pregnancy, childbirth, or in the six weeks after childbirth per 100,000 women of reproductive age during the same time period.

**Maternal mortality ratio:** Number of women who die during pregnancy, childbirth, or in the six weeks after childbirth per 100,000 live births.

**Mean:** The average; calculated by totaling the values of all observations and dividing by the number of observations.

**Median:** The middle observation—half the observations are smaller, and half are larger. When there are an odd number of observations, the median is found by arranging the observations from lowest to highest (or vice versa) and selecting the middle value. When there is an even number of observations, the median is calculated by taking the mean of the two middle values.

**Median age at first marriage:** The age by which half the population marries. If the median age at first marriage is 17, this means that half of the married women in the population married before or at age 17 and half married at or after age 17.

**Mode:** The value that occurs most frequently.

**Modern family planning methods:** Male and female sterilization; male and female condoms; oral contraceptive pills; injectables; implants; intrauterine devices (IUDs); diaphragms; contraceptive foam, jelly, and spermicide; emergency contraception; and the lactational amenorrhea method (LAM).

**Neonatal mortality rate:** Probability of dying within the first month of life; calculated as the number of children dying within the first 30 days after birth per 1,000 live births.



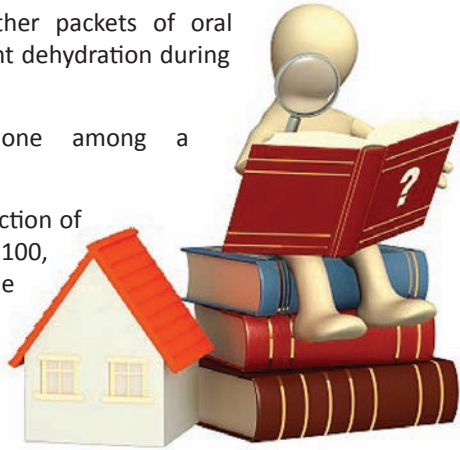
*Photo Credit : sharepointrecordsmanagement.com*

**Oral rehydration therapy (ORT):** The use of either packets of oral rehydration salts (ORS) or increased fluids to prevent dehydration during episodes of diarrhea.

**Population-based HIV testing:** HIV-testing done among a representative sample of the population.

**Percentages:** A way of expressing a number as a fraction of 100; calculated by multiplying a proportion times 100, e.g., the number of men in a classroom divided by the total number of people in a classroom times 100.

**Postnatal care (PNC):** Check-up by a trained health care provider after delivery; WHO recommends a postnatal visit within 6–12 hours of delivery.



*Photo Credit : www.weichertp.com*

**Prevalence:** the proportion of a population found to have a condition (a disease or a risk factor like smoking or seat-belt use). Calculated by comparing the number of people found to have the condition with the total number of people studied. Prevalence is always expressed as a fraction, as a percentage, or as the number of cases per 10,000 or 100,000 people.

**Range:** Difference between the largest observation and the smallest; often expressed as the largest and smallest observation rather than the difference between them.

**Rate:** The frequency of events in a population during a specified time period (usually one year) divided by the total population. Rates tell us how common it is for an event to occur. For example, the infant mortality rate is the number of infant deaths during a set time period (usually 5 years) divided by the total number of infants born in the same time period (usually 5 years). Rates can be age-specific, sex-specific, and so on. (Hint: In rates, people in the numerator must be part of the same group as people in the denominator.)

**Ratio:** The relation of one population subgroup to the entire population or to another subgroup of the population. For example, the maternal mortality ratio is the number of women who die because of complications of pregnancy or childbearing in a given year per 100,000 live births in that year. (Hint: In ratios the numerator is not part of the denominator.)

**Representative sample:** A group of households or people selected for a study from a larger population using scientific probability to ensure that the sample has similar characteristics to the population from which it is drawn. Each household or person is selected by chance through a systematic process designed by a trained statistician. This means that each member of the population has a known chance of being included in the sample.

**Routine data collection:** A standard procedure for gathering and measuring information on any topic, for example, the number of children at a health care center who get immunized each month. Another example is birth registration systems.

**Standard Deviation:** A measure of the spread of data around the mean or median.

**Statistical significance:** Statistical significance refers to whether any differences observed between groups being studied are real or whether they are simply due to chance.

**Stunting:** Height-for-age is two or more standard deviations below the median determined by international growth standards.





## Reference

1. Whitehead and Dahlgren (2006)
2. Bangladesh Demographic and Health Survey (2011)
3. Centers for Diseases Control and Prevention; NCHS Data Brief Number 9, October 2008 (<http://www.cdc.gov/nchs/data/databriefs/db09.htm>)
4. Indonesia DHS (2007)
5. India National Family Health Survey (2005-06)
6. Bangladesh DHS (2011)
7. CIA World Fact Book, (2011)
8. USAID
9. Bangladesh DHS (2011)
10. Bangladesh Maternal Mortality and Health Care Survey (2010)
11. Bangladesh DHS (2011)
12. UNICEF, Special Session on Childhood Malnutrition
13. World Health Organization, Global Tuberculosis Report (2012)
14. BDHS (2011)
15. Directorate General of Health Services, MOHFW, National Cancer Control Strategy (2009-15)
16. World Health Organization
17. WHO, Trends in Maternal Mortality (1990-2010)
18. Bangladesh Maternal Mortality and Health Care Survey (2010)
19. World Health organization (2011)
20. BDHS (2011)
21. World Health Organization
22. WHO
23. UNICEF, State of the World's Children (2012)
24. World Health Organization
25. World Bank (2012)
26. BDHS (2011)
27. BDHS (2011)
28. WHO (2009)
29. Center for Neglected Tropical Disease
30. CDC
31. WHO (2011)
32. CDC (2010)
33. Center for Neglected Tropical Disease

**Contact**

**Eminence**

3/6 Asad Avenue, Mohammadpur, Dhaka-1207, Bangladesh

Phone: +88 02 8143966, +88 02 9119459 | Fax: +88 02 8150496

Email: [Shusmita@eminence-bd.org](mailto:Shusmita@eminence-bd.org), Web-Site: [www.eminence-bd.org](http://www.eminence-bd.org)

