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Mortality Trend in Bangladesh - Life Insurance Perspective, Phase II

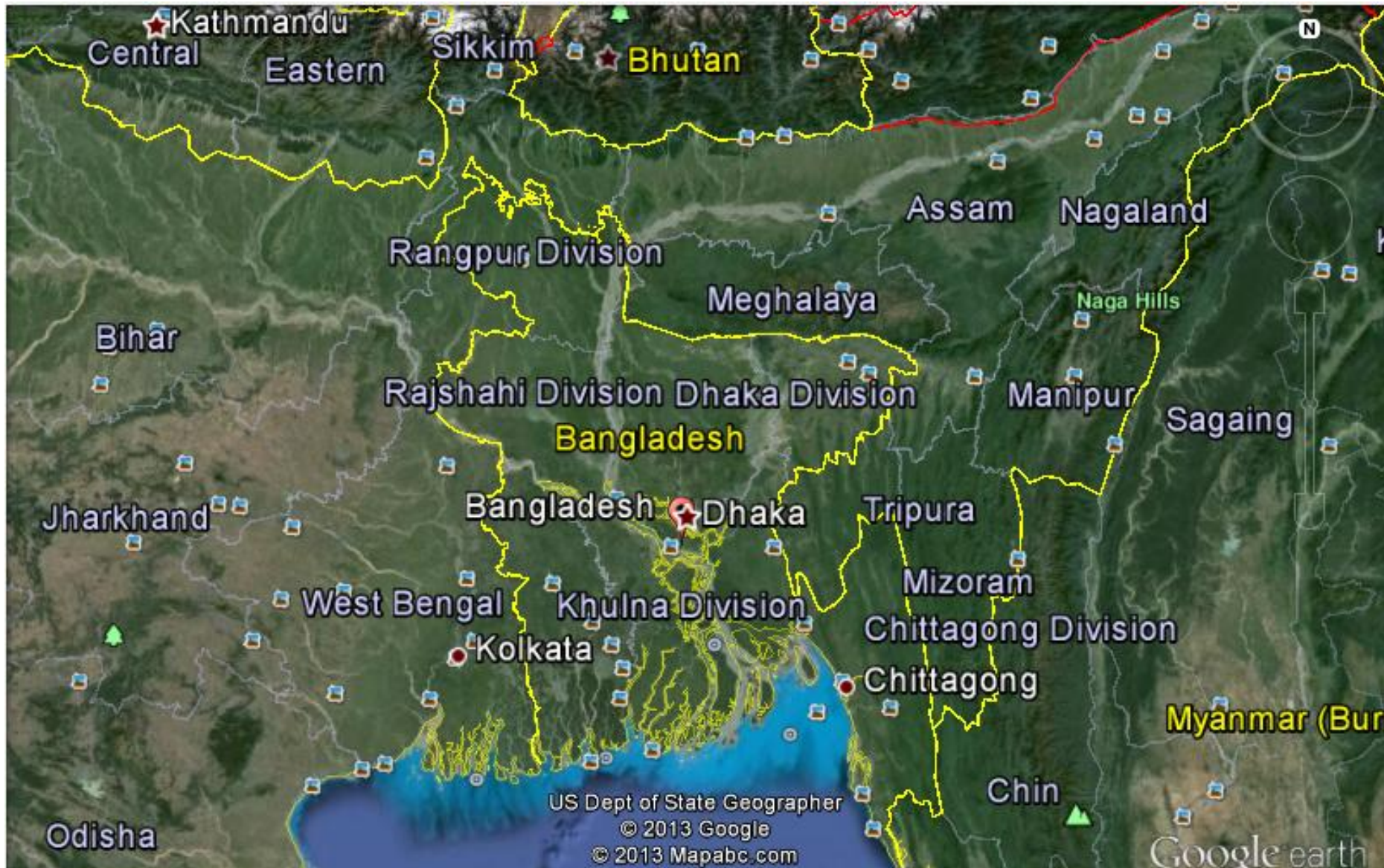


M. Ahsanul Haq

Actuarial Society of Bangladesh

www.actuariesbd.org

Geographic Location of Bangladesh



The General Fact About Bangladesh

Official Name : **People's Republic of Bangladesh** (গণপ্রজাতন্ত্রী বাংলাদেশ).

Official languages: Bangla (বাংলা).

Independence Day: 26 March 1971.

Victory Day: 16 December 1971.

International Language Day: 21 February.

Area Total: 147,570 km² (94th) or 56,977 square mile.

Population: March 2013 estimate 150,039,000 (8th).

Population Density: 1,033.5/km² (12th).

GDP (PPP) Total: \$324.628 billion^[3] (43rd) by 2013 estimate.

Per capita: \$1,044^[3] (150th)

Currency: Taka (৳) (BDT).

Economy: Agriculture, Industry (Garments, Software, Ship Building)

Administrative Divisions: 7, Districts: 64

Bangladesh is one of the most Climate Change Vulnerable Country in the World due to Geographic location.



Data Source: www.en.wikipedia.org

Demographic Facts of Bangladesh

- **Growth rate** : 1.59% (2013 est.)
- **Birth rate** : 17.88 births/1,000
- **Death Rate** : 4.8 deaths/1,000
- **Life Expectancy: 70.36 years** (2013 est.), Male: 68.48 years, Female: 72.31 years
- **Fertility rate** : 2.1 children born/woman (2011 est.)
- **Infant mortality rate:** 37.3 deaths/1,000 live births.

Age structure

- **0–14 years** : 34.6% (male 24,957,997/female 23,533,894)
- **15–64** : 61.4% (male 47,862,774/female 45,917,674)
- **65 and over** : 4% (male 2,731,578/female 2,361,435) (2006 est.)

Sex ratio

- **At birth** : 1.04 male(s)/female (2009 est.)
- **Under 15** : 1.01 male(s)/female
- **15–64** : 0.9 male(s)/female
- **65 +** : 0.94 male(s)/female



Data Source: www.en.wikipedia.org

Abstract:

- Bangladesh has the highest population density in the Worldn the World. As per recent Demographic data its current population is about 160 million,.61.4% of the total Population are in the age structure 15-64 Years, and Life expectancy 60.25 Years.
- According to Bangladesh Insurance Association (BIA) Year Book 2011 - Life Insurance market grew at an impressive rate of 26.7%. Whereas the penetration (Premium as a % of GDP) remains low at 0.7% for Life Insurance.
- Bangladesh Economy is vibrating. Life Insurance Policies become popular in Bangladesh day by day. So there is a bright prospect to enhance the Life insurance Service in Bangladesh. There are 18 Life Insurance Companies operating the service. Traditional, Typical products are mainly issued and the range of Life Insurance products are limited. The necessary and important products for the civilian like Health Insurance , Pension are mostly neglecting. An exclusive confidential study leads that the Life expectancy is growing up where as the Life Insurance Industry's Premium rate is higher instead of decreasing and the benefits are lower. There are several reasons for these anomalies - it happens mostly because actuaries are using different Life Tables of the other region which are backdated also. Bangladesh Life Table is the fundamental requirements for the actuaries and Life Insurance Industry now a days. Unfortunately it unprepared. Some young energetic actuary students in Bangladesh are trying to prepare a **Bangladesh Life Table**. Last five years they engaged themselves to find the Mortality Trend of Life Insurance in Bangladesh which shows the recent Mortality Trend.



Mortality Data in Bangladesh Life Insurance Sector:

Bangladesh is a developing country. Insurance is one of the most vibrant sector in the Financial Service in Bangladesh. Life insurance is playing a significant and vital role. There are 18 Life insurance companies - among these Jiban Bima Corporation the Govt. or Public owned, MetLifeAlico is foreign company and rest 16 are the private limited companies. Insurance business privatized in 1984 and it started operation in the late 80s. Insurance is till now a negative impression profession in our society due non-professionalism, malpractices etc. Except 3 or 4 out of these life insurance companies surprisingly don't have the Actuarial Service. As per Insurance Act 2010 insurance desk is a mandatory in every life insurance company from 01 March 2012. As per a confidential survey report that till May 2013 there are no Actuarial desk in 4 life insurance companies, 10 Companies have desk but inactive without guidance and 4 companies are doing a little bit to fulfill the regulatory authority's requirements like Valuation, Pricing only. As a result Mortality data is a burning issue but very challenging -



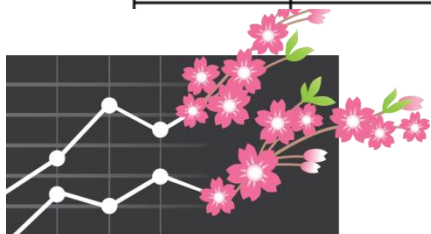
Mortality Data in Bangladesh Life Insurance Sector:

- Most of the company have the ordinary manual registers for policy and death claims information without maintaining the standard format.
- Except 4 or 5 companies most of the company have very poor ICT service or even don't have.
- The company owners, management, insurance professionals, Medical Service Providers, Doctors, people are less concern about the necessity of the Mortality data. Some times Medical Service Providers, Doctors and beneficiaries opposed to provide the actual cause of death or the proper document.
- Most of the death Certificates don't have the proper cause of death due to limited diagnosis facilities.
- The data of this research paper is a **Complete Death Claim Database** till December 2012 of a 3rd generation life insurance company established in 2000. The author of this paper is tracking the death pattern continuously since 2003 and **investigated more than 500 death reports physically** to meet with the medical death certificate issuer, related concern authorities and with the family member of the policy holder. The author is trying to arrange the data set into standard demographic pattern – by Cause, Age, gender etc. specific mortality. The report summary as follows –
- There exist **62 causes** of **death** in the Life Insurance Mortality Data sample.
- About **7%** cause of death are **unknown**.
- Impact of the Catastrophic risk like Cyclone/Sidr, Swine Flu etc. and very uneven cause of death - Killed by the man-eater tiger are introduced newly the cause of death in Life Insurance.
- Acute Myocardial Infarction, Road Traffic Accident, Chronic Heart Disease, Cancers, Liver diseases, Renal diseases are in the top causes of death respectively.



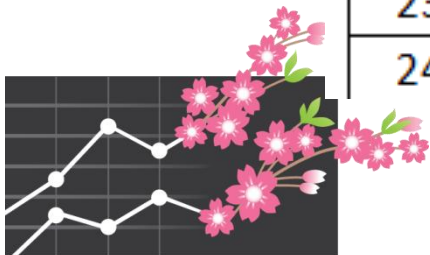
Ranking (1-10) of the Cause of Death for Both Sex:

Rank	Cause_of_Death_Both Sex	Count of Death	Percentage (%)
1	Acute Myocardial Infarction (AMI)	1917	56.31609871
2	Unknown	235	6.903642773
3	Road Traffic Accident	173	5.082256169
4	Diarrhea	155	4.55346651
5	Heart Disease - Chronic	76	2.23266745
6	Liver Disease A+	71	2.085781434
7	Cancer - Blood	54	1.586368978
8	Fever - Unknown	54	1.586368978
9	Miscellaneous Accidents	50	1.468860165
10	Bronchial Disease	50	1.468860165



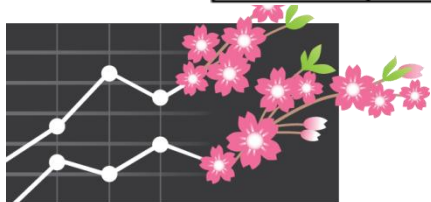
Ranking (11-24) of the Cause of Death for Both Sex:

Rank	Cause_of_Death_Both Sex	Count of Death	Percentage (%)
11	Cancer - Liver	72	2.115158637
12	Delivery Related Complexy	45	1.321974148
13	Electric Shock	42	1.233842538
14	Cancer - Other	38	1.116333725
15	Homicide	33	0.969447709
16	Renal Failure	31	0.910693302
17	Typhoid	29	0.851938895
19	Malaria	24	0.705052879
20	Peptic Ulcer	21	0.616921269
21	Renal Failure - Chronic	20	0.587544066
22	Hypertension	18	0.528789659
23	Suicide	18	0.528789659
24	Eclampsia	17	0.499412456



Ranking (25-40) of the Cause of Death for Both Sex:

Rank	Cause_of_Death_Both Sex	Count of Death	Percentage (%)
25	Snake Bite	17	0.499412456
26	Accident - Thunderstorm	13	0.381903643
28	Paralysis	10	0.293772033
29	Anemia	9	0.26439483
30	Tetanus	8	0.235017626
31	Cyclone / Sidr	7	0.205640423
32	Cancer - Stomach	7	0.205640423
33	Tumor	7	0.205640423
34	Fire Burn	6	0.17626322
35	Brain Hemorrhage	6	0.17626322
36	Cancer - Brest	6	0.17626322
37	Cancer - Uterus	5	0.146886016
38	Septicemia	5	0.146886016
39	Tumour - Brain	5	0.146886016
40	Asthma	3	0.08813161



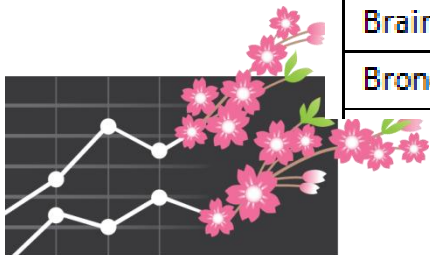
Ranking (41-62) of the Cause of Death for Both Sex:

Rank	Cause_of_Death_Both Sex	Count of Death	Percentage (%)
41	Cancer - Gall Bladder	3	0.08813161
42	Cancer - Rectum	3	0.08813161
43	Diphtheria	3	0.08813161
44	Pneumonia	3	0.08813161
45	Accident - Drown	2	0.058754407
46	Appendicitis	2	0.058754407
47	Flu - Swine	2	0.058754407
48	Intestinal Obstruction	2	0.058754407
49	Liver Disease B+	2	0.058754407
50	Tiger Attack	2	0.058754407
51	Cancer - Lung	1	0.029377203
52	Cancer - Bone	1	0.029377203
53	Cancer - Thyroid	1	0.029377203
54	Encephalitis	1	0.029377203
55	Fever - High	1	0.029377203
56	Fever -Rheumatic	1	0.029377203
57	Liver Disease E+	1	0.029377203
58	Meningitis	1	0.029377203
59	Pancreatitis	1	0.029377203
60	Rabies	1	0.029377203
61	Tumour - Liver	1	0.029377203
62	UTI	1	0.029377203
	Total	3404	100



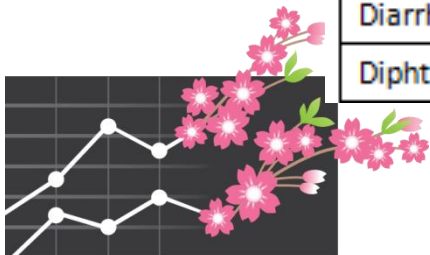
Cause of Death (A-B) by Age Group:

Cause_of_Death	Count of AGE ≤ 20	Count of AGE 20 - 30	Count of AGE 30 - 40	Count of AGE 40 - 50	Count of AGE 50 - 60	Count of AGE 60+
Abdominal Pain	1	3	2	4	0	0
Accident - Cyclone	1	0	5	1	0	0
Accident - Drowning	1	1	0	0	0	0
Accident - Electric Shock	6	20	13	3	0	0
Accident - Fire Burn	2	1	3	0	0	0
Accident - Other	10	20	16	4	0	0
Accident - Road Traffic	8	79	47	34	3	0
Accident - Thunderstorm	1	5	6	1	0	0
Acute Myocardial Infarction (AMI)	101	291	704	734	72	10
Anemia	1	3	4	1	0	0
Asthma	0	1	1	1	0	0
Appendicitis	1	0	0	1	0	0
Brain Hemorrhage	1	1	3	0	1	0
Bronchial Disease	3	8	14	20	5	0



Cause of Death (C-D) by Age Group:

Cause_of_Death	Count of AGE ≤ 20	Count of AGE 20 - 30	Count of AGE 30 - 40	Count of AGE 40 - 50	Count of AGE 50 - 60	Count of AGE 60+
Cancer - Lung			0	1	0	0
Cancer - Blood	1	9	24	16	3	0
Cancer - Brest	0	2	2	2	0	0
Cancer - Liver	2	11	10	22	2	0
Cancer - Other	3	6	14	13	2	0
Cancer - Bone	0	0	0	1	0	0
Cancer - Rectum	1	0	2	0	0	0
Cancer - Stomach	2	2	2	1	0	0
Cancer - Uterus	1	0	1	1	1	0
Cancer - Gall Bladder	0	0	0	3	0	0
Cancer - Thyroid	0	0	1	0	0	0
Delivery Related Complexy	2	21	21	1	0	0
Diarrhea	14	37	55	44	3	2
Diphtheria	2	1	0	0	0	0



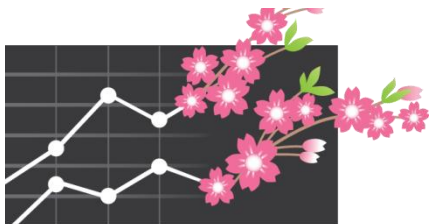
Cause of Death (E-M) by Age Group:

Cause_of_Death	Count of AGE ≤ 20	Count of AGE 20 - 30	Count of AGE 30 - 40	Count of AGE 40 - 50	Count of AGE 50 - 60	Count of AGE 60+
Eclampsia	1	11	3	2	0	0
Encephalitis	1	0	0	0	0	0
Fever - Unknown	7	15	11	19	2	0
Fever - Rheumatic	0	0	0	1	0	0
Fever - High	0	0	1	0	0	0
Heart Disease - Chronic	8	20	0	0	1	0
Flu - Swine	0	0	2	0	0	0
Homicide	3	16	8	6	0	0
Heart Disease - Chronic	0	0	18	27		2
Hypertension	0	4	9	5	0	0
Intestinal Obstruction	0	0	1	0	1	0
Liver Disease A+	1	23	28	18	1	0
Liver Disease B+				2		0
Liver Disease C+	1	6	5	12	1	0
Liver Disease E+	0	0	0	1	0	0
Malaria	2	8	8	6		0
Meningitis	0	1	0	0		0



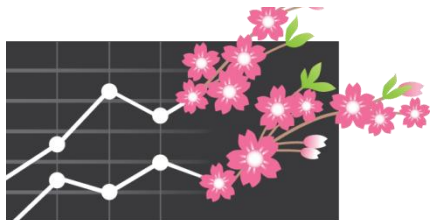
Cause of Death (P-S) by Age Group:

Cause_of_Death	Count of AGE ≤ 20	Count of AGE 20 - 30	Count of AGE 30 - 40	Count of AGE 40 - 50	Count of AGE 50 - 60	Count of AGE 60+
Pancreatitis	0	0	1	0		0
Paralysis	0	1	4	4		1
Rabies	0	0	0	0	0	0
Peptic Ulcer	1	6	9	5	0	0
Rabies	0	1	0	0	0	0
Pneumonia	1	0	1	1		0
Renal Failure	3	8	9	10	1	0
Renal Failure - Chronic	1	5	8	5	1	0
Septicemia	1	1	0	3	0	0
Snake Bite	0	8	7	2	0	0
Suicide	1	8	4	4	0	0



Cause of Death (T-Z) by Age Group:

Cause_of_Death	Count of AGE ≤ 20	Count of AGE 20 - 30	Count of AGE 30 - 40	Count of AGE 40 - 50	Count of AGE 50 - 60	Count of AGE 60+
Tetanus	1	5	0	2	0	0
Tiger Attack	0	0	0	1	0	0
Tumor	0	0	3	4	0	0
Tumour - Brain			3	2	0	0
Tumour - Liver	0	1	0	0	0	0
Tiger Attack	0	0	1	0	0	0
Typhoid	4	10	6	8	0	0
Unknown	15	39	81	65	1	0
Urinary Tract Infection	0	0	0	1	0	0
Total	217	719	1181	1125	101	15



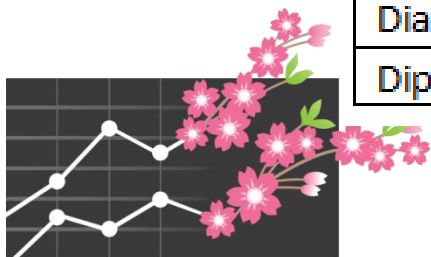
Gender Specific Cause of Death (A-B):

Cause_of_Death	Count of Female	Count of Male	Total
Abdominal Pain	4	7	11
Accident - Cyclone	2	5	7
Accident - Drown	0	2	2
Accident - Electric Shock	12	30	42
Accident - Fire Burn	4	2	6
Accident - Other	12	38	50
Accident - Road Traffic	28	145	173
Accident - Thunderstorm	3	10	13
Acute Myocardial Infarction (AMI)	868	1047	1915
Anemia	8	1	9
Appendicitis	1	1	2
Asthma	1	2	3
Brain Hemorrhage	1	5	6
Bronchial Disease	27	23	50



Gender Specific Cause of Death (C-D):

Cause_of_Death	Count of Female	Count of Male	Total
Cancer - Blood	27	27	54
Cancer - Bone	0	1	1
Cancer - Brest	6	0	6
Cancer - Gall Bladder	3	0	3
Cancer - Liver	20	27	47
Cancer - Lung	0	1	1
Cancer - Other	19	19	38
Cancer - Stomach	0	0	0
Cancer - Rectum	0	3	3
Cancer - Stomach	5	2	7
Cancer - Thyroid	1	0	1
Cancer - Uterus	5	0	5
Delivery Related Complexy	45	0	45
Diarrhea	82	73	155
Diphtheria	1	2	3



Gender Specific Cause of Death (E-P):

Cause_of_Death	Count of Female	Count of Male	Total
Eclampsia	17	0	17
Encephalitis	1	1	2
Fever - Unknown	23	31	54
Fever -Rheumatic	1	0	1
Flu - Swine	2	0	2
Heart Disease - Chronic	42	34	76
Homicide	7	26	33
Hypertension	12	6	18
Intestinal Obstruction	2	0	2
Liver Disease A+	37	34	71
Liver Disease B+	1	1	2
Liver Disease C+	6	19	25
Liver Disease E+	0	1	1
Malaria	12	12	24
Meningitis	0	1	1
Pancreatitis	1	0	1
Paralysis	5	5	10
Peptic Ulcer	12	9	21



Gender Specific Cause of Death (R-Z):

Cause_of_Death	Count of Female	Count of Male	Total
Rabies	0	1	1
Pneumonia	3	0	3
Renal Failure	9	22	31
Renal Failure - Chronic	8	12	20
Septicemia	1	4	5
Snake Bite	4	13	17
Suicide	9	9	18
Tetanus	4	4	8
Tiger Attack	0	2	2
Tumor	3	4	7
Tumour - Brain	3	2	5
Tumour - Liver	1	0	1
Typhoid	19	10	29
Unknown	144	91	235
Urinary Tract Infection (UTI)	0	1	1
Total	1574	1828	3402

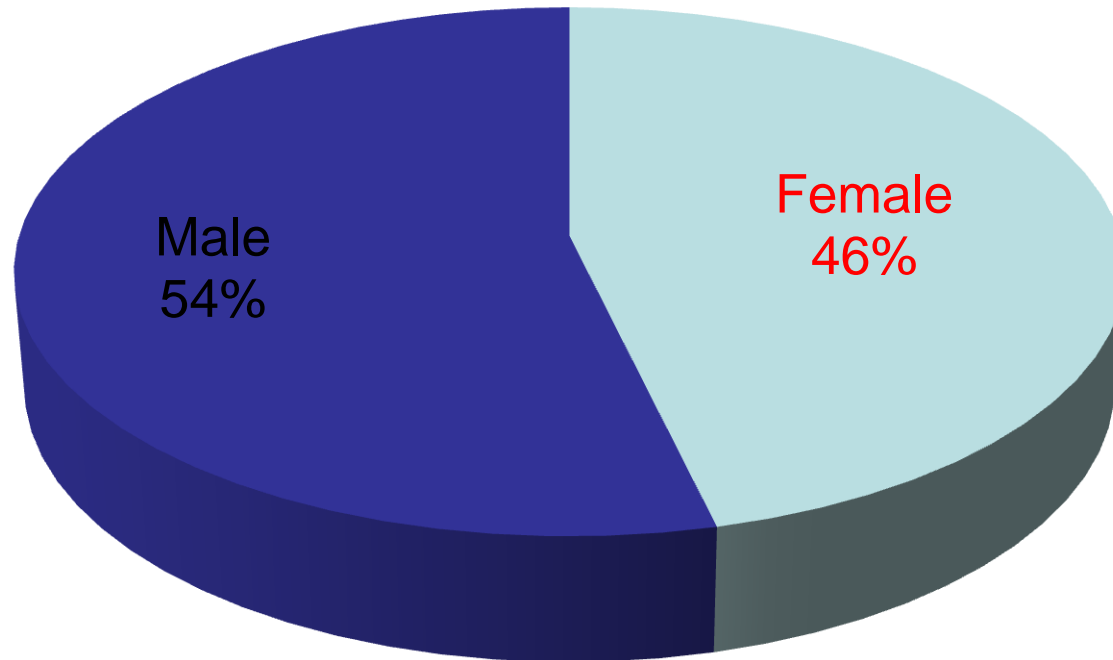


Findings from the data:

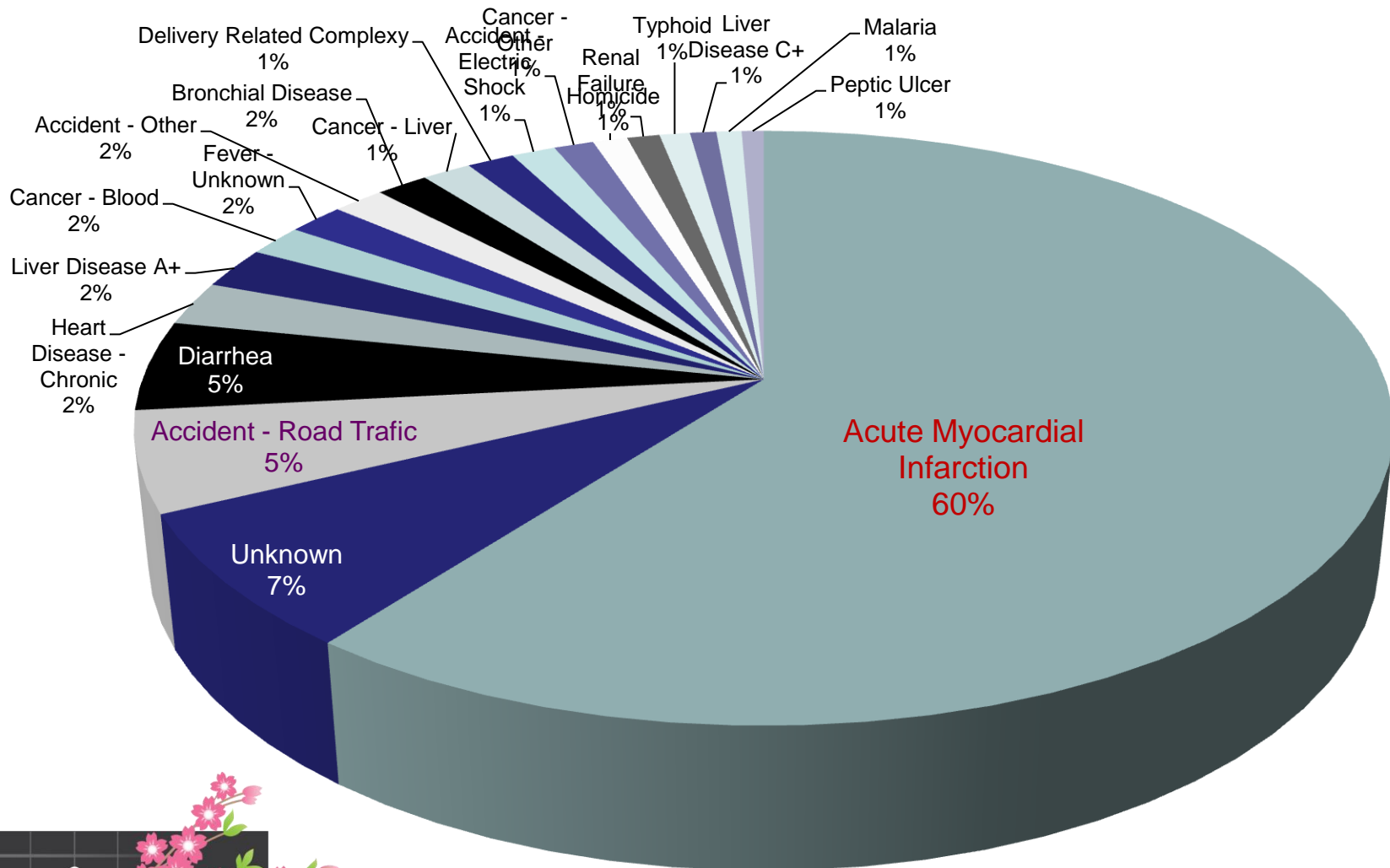
- For both gender **Highest no. of death 734 in the age group 40-50 years, the 2nd highest no. of death 704 is in the age group 30-40 and the cause of death is Acute Myocardial Infarction (AMI).**
- Most of the cases **Male Mortality (54%) is Higher than the Female Mortality (46%).**
- **Unknown Cause of Death (7%) and in fewer cases Female Mortality is Higher than the Male Mortality.** The cause and frequencies are Anemia (8), Bronchial diseases (27), Diarrhea (82), Chronic Heart Disease (42), Hypertension (12), Fire Burn (4), Gall Bladder Cancer(3), Stomach Cancer (5) Liver Disease A+ (37), Peptic Ulcer (12), Pneumonia (3), Typhoid (19), Unknown (144).
- In **seven cases number of death for both gender are equal** - Appendicitis (1), Encephalitis (1), Liver disease B+ (1), Malaria (12), Paralysis (5), Suicide (9), Tetanus (4).
- In the **combined age structure 30-50 total number of deaths are 2306 (74%)** and separately in the age structure 30-40 years no. of deaths are 1181 (38%), age structure 40-50 years no. of deaths are 1125 (34%) respectively.



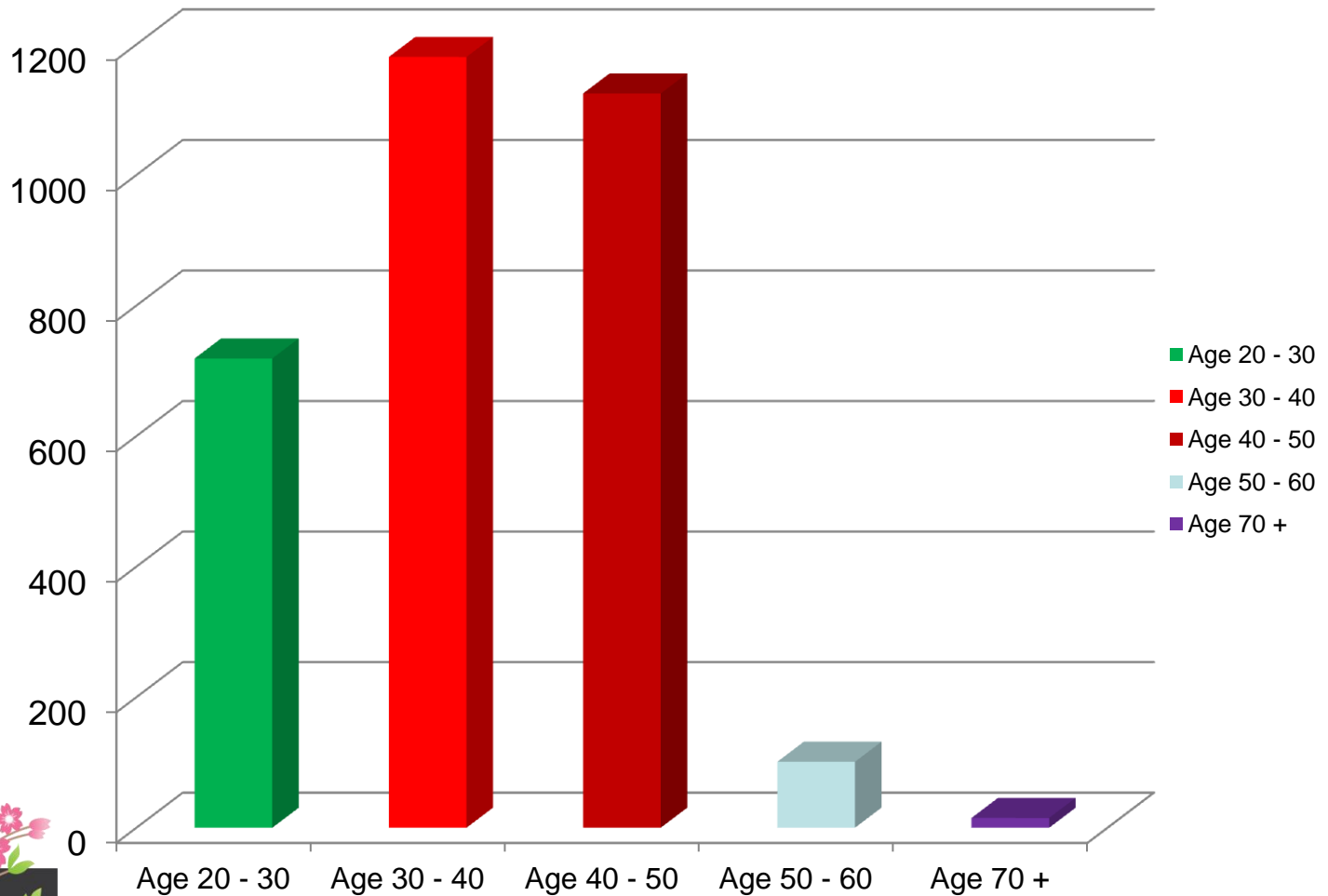
Male & Female Mortality Ratio by All Causes of Death



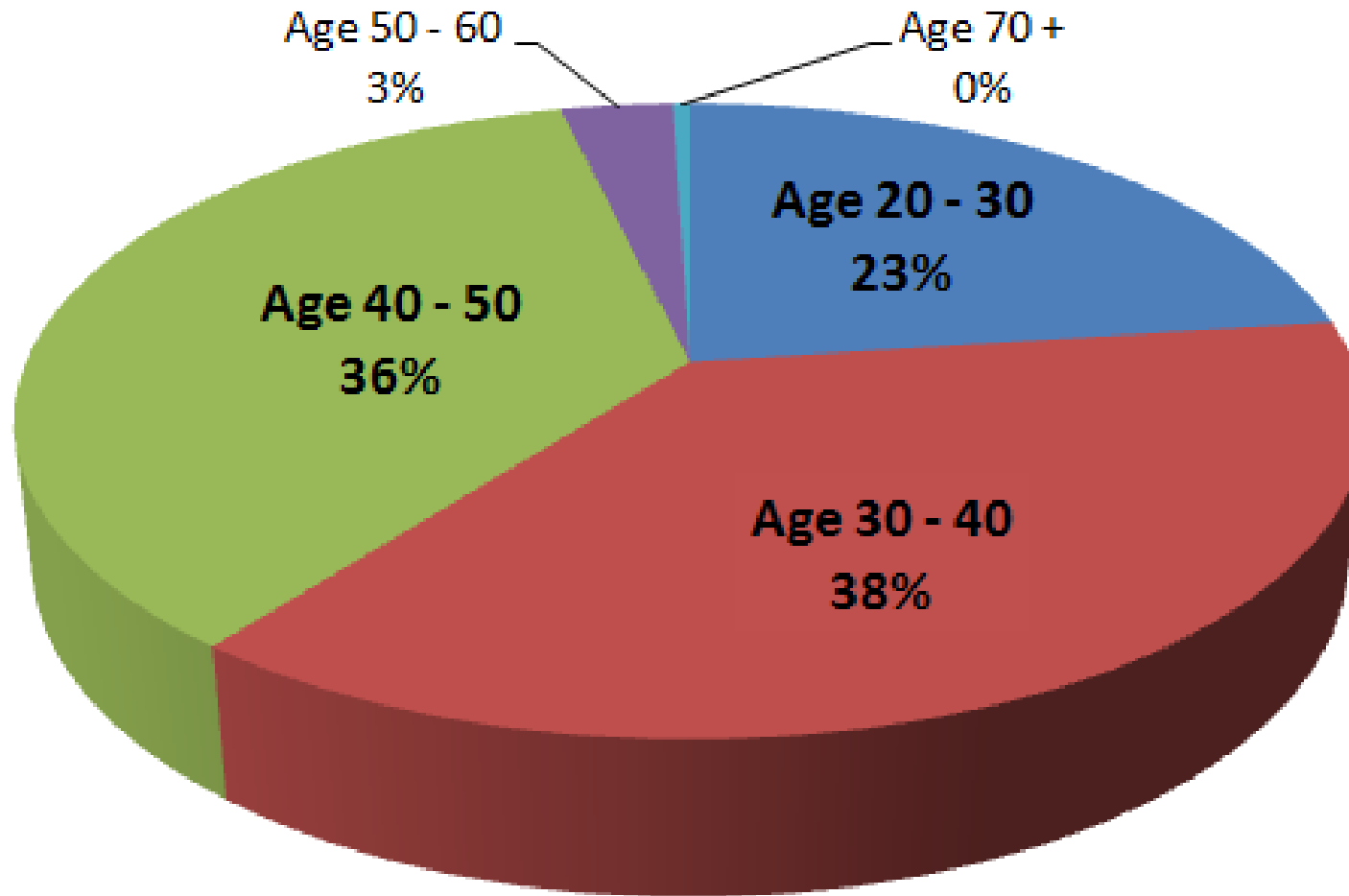
Percentage of Deaths for Both Sex by Top 20 Causes



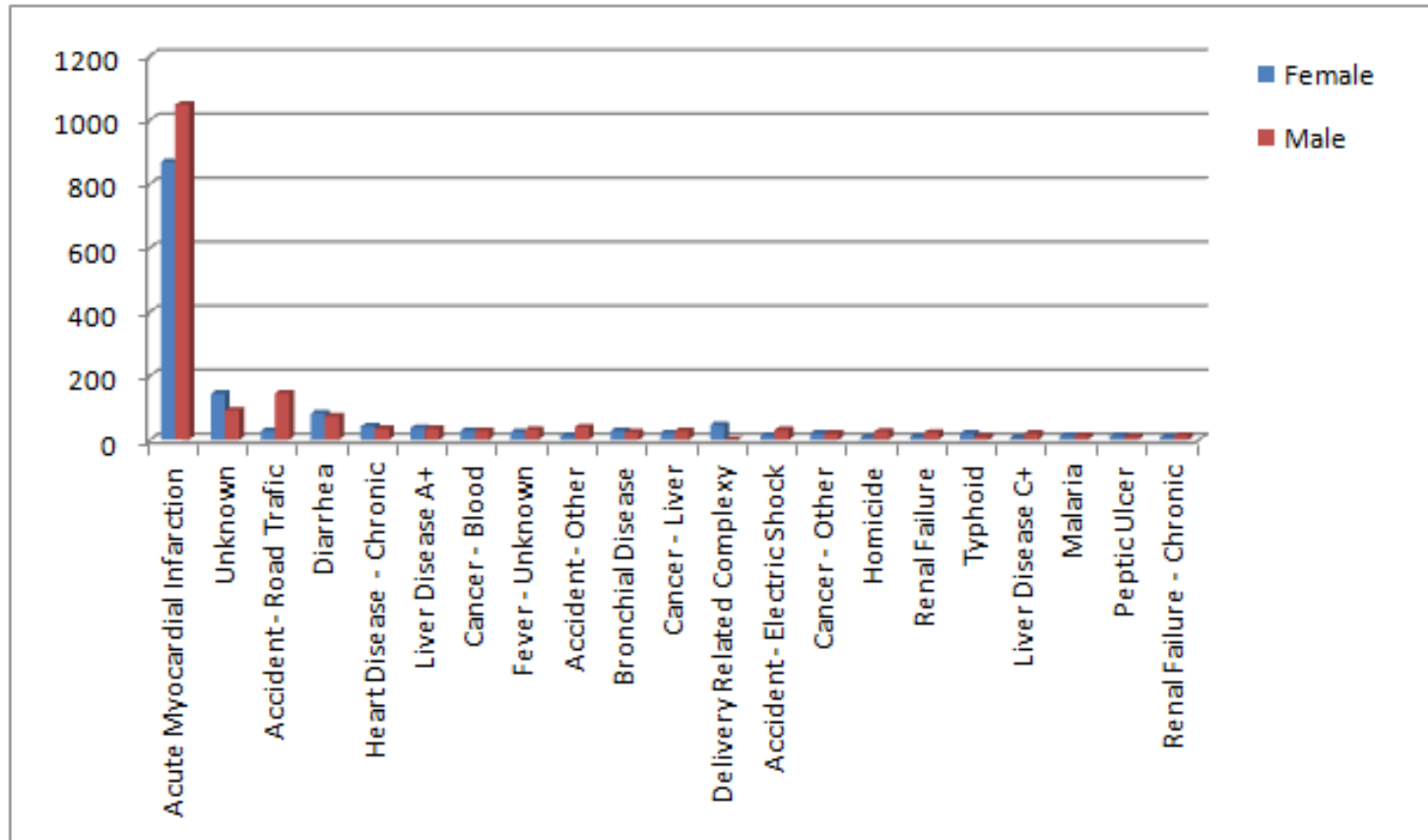
Age Specific Mortality by Both Sex:



Age Specific Mortality by Both Sex:



Gender Specific Death by Top 20 Causes of Death

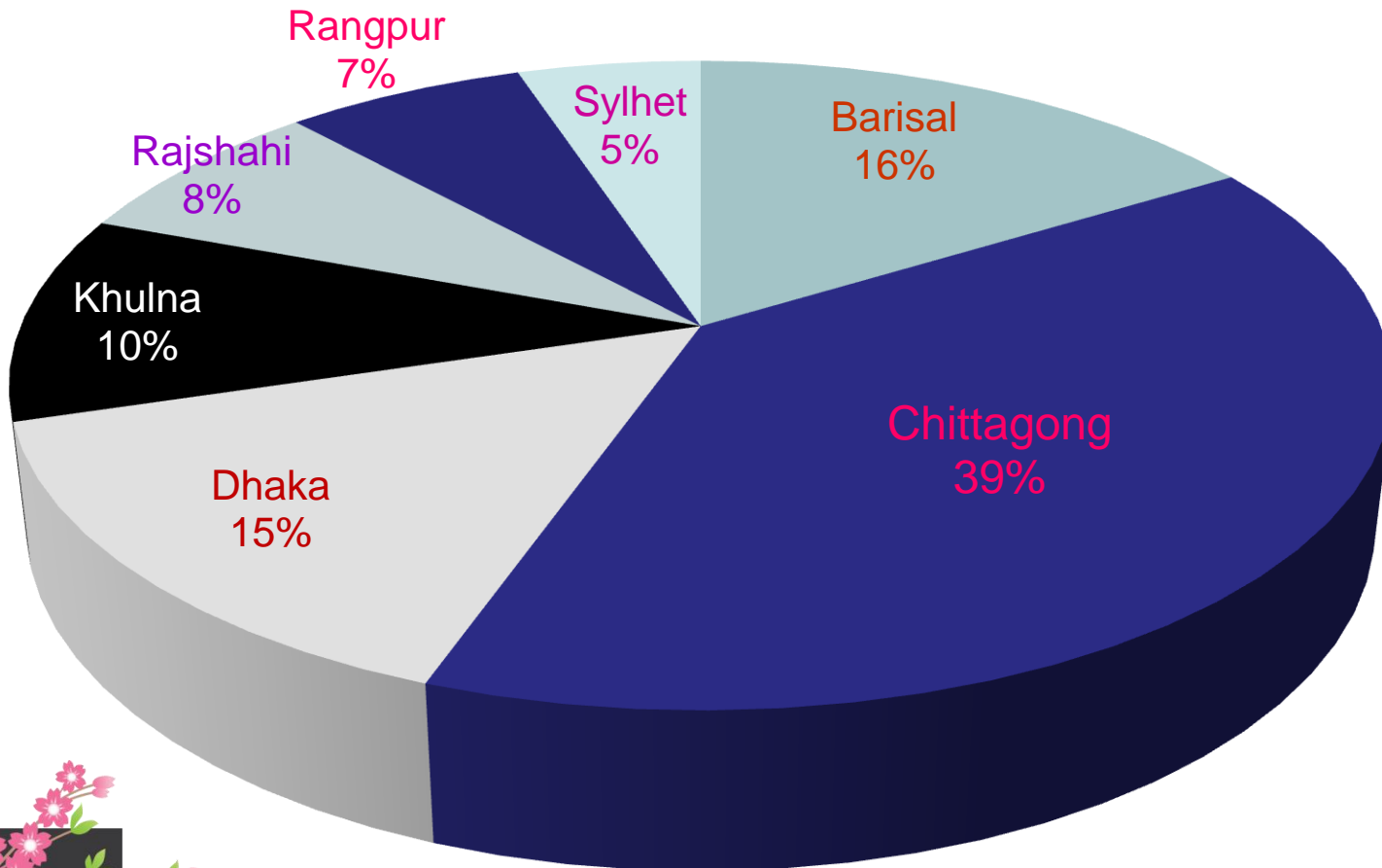


Division wise Mortality - Both Gender:

Serial	Name od Division	Count of Death
1	Barisal	555
2	Chittagong	1332
3	Dhaka	507
4	Khulna	352
5	Rajshahi	256
6	Rangpur	228
7	Sylhet	174
	Total	3404



Division wise Mortality - Both Gender:

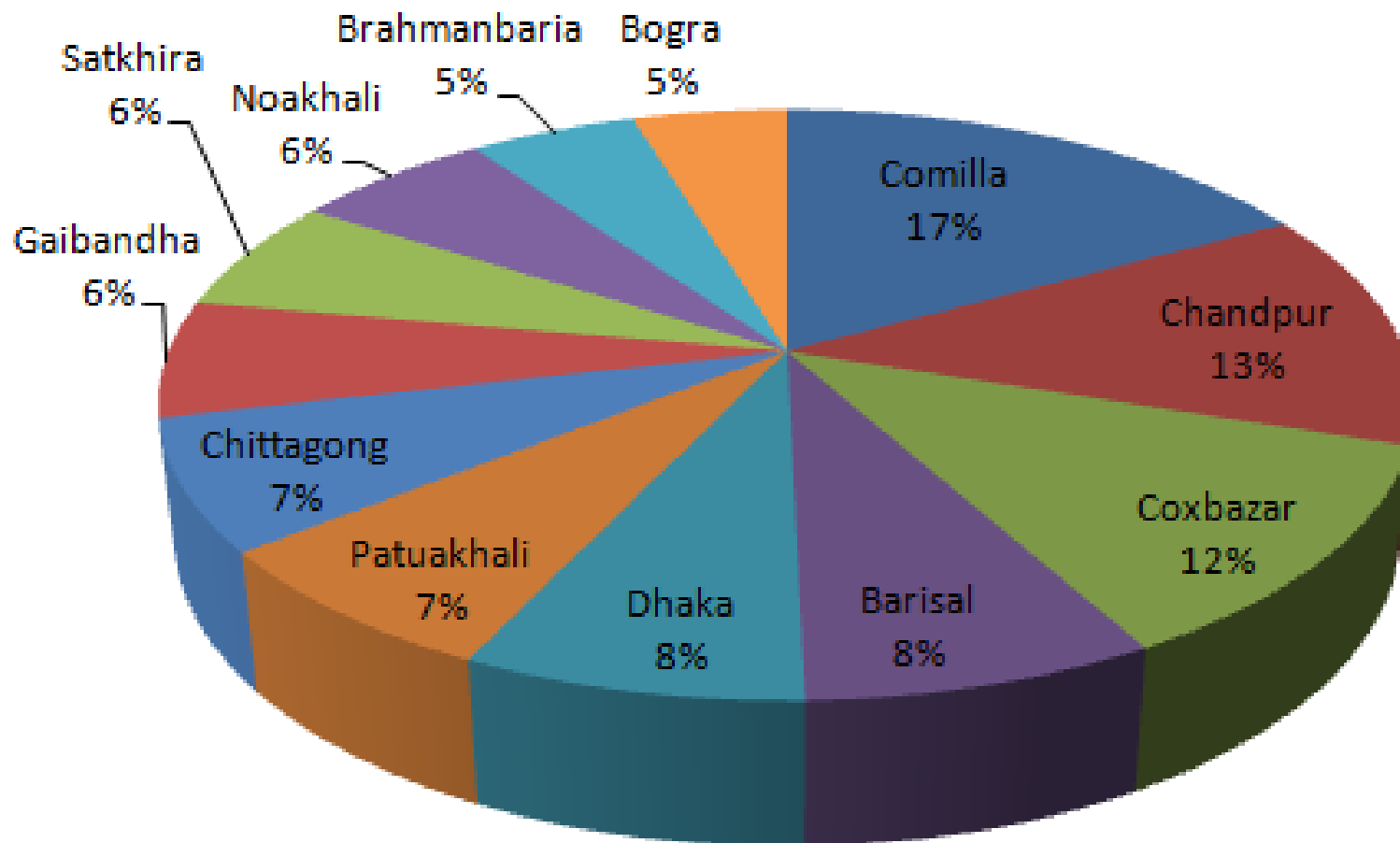


Top 10 Districts by all Causes of death-Both Gender:

Serial	Name of District	Count of Death
1	Comilla	334
2	Chandpur	258
3	Coxbazar	233
4	Barisal	152
5	Dhaka	147
6	Patuakhali	141
7	Chittagong	141
8	Gaibandha	126
9	Satkhira	123
10	Noakhali	120
11	Brahmanbaria	101
12	Bogra	93

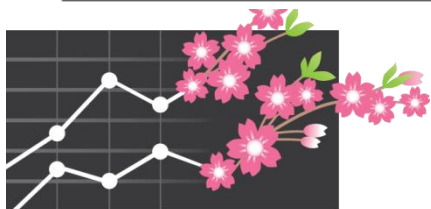


Top 10 Districts by all Causes of Death-Both Gender:



Comparison of the Mortality Ranking by top 12

Data Rank	Cause_of_Death	Count-Female	Count-Male	Total	BGD Rank	World Rank
1	Heart Disease	910	1081	1991	1	25
2	Accident	61	232	293	9	90
3	Unknown	144	91	235		
4	Cancer	86	80	166	20	
5	Diarrhea	82	73	155	6	62
6	Feaver	55	53	108	43	
7	Liver Diseases	44	55	99	16	60
8	Maternal	62	0	62	7	36
9	Lung Disease	31	25	56	5	9
10	Renal System	17	35	52	17	107
11	Homicide	7	26	33	18	77
12	Peptic Ulcer	12	9	21	25	



Social and Environmental Threats for influencing Mortality

Bangladesh suffers from many problems such as poor infrastructure, political instability, corruption, and insufficient power supplies, the country's **economy** has **grown 5-6%** per year since 1996. However, Bangladesh still remains a poor, overpopulated, and inefficiently-governed nation with **about 45%** of the Bangladeshis being employed in the agriculture sector.

- **Financial inequality:** Very high between the rich and general people.
- **Poverty :** 26 % of whom live below the national poverty line of US \$2 per day.
- **Literacy:** Bangladesh has a low literacy rate, estimated at **61.3% for males** and **52.2% for females** in 2010.
- **Awareness:** Due to low literacy rate people are less aware about better living.
- **Environmental:** With **80% of the country situated on the flood plains** of the Ganges, Brahmaputra, Meghna and those of several other minor rivers, the country is prone to severe flooding. On average, **16% of household income per year is lost due to flooding**, with roughly **89% of the loss in property and assets**.

For development work brickfields, motor vehicles, engines are producing more noise and Carbon which very dangerous for the human and environment.



Noise Pollution-Pictorial Views from the Newspaper



Noise Pollution - Accepted Level vs Present Level



PERMISSIBLE SOUND LEVEL		
AREAS	SOUND LEVEL UNIT (DB)	
	DAY	NIGHT
Silent zones	50	40
Residential areas	55	45
Mixed areas	60	50
Commercial areas	70	60
Industrial areas	75	70

Table II Noise Level (in dBA Unit) Near Road.

Time Interval	Location						
	Gulistan	Science Lab	Saydabad	Farmgate	Dhanmondi	Gulshan	Uttara
Land-use Type	Comm.	Mixed	Comm.	Comm.	Res.	Res.	Res
7am-11 am	80.08	76.24	83.27	80.07	75.87	76.16	76.25
11am-3pm	79.34	75.19	83.89	78.86	74.38	74.83	74.81
3pm-7pm	81.13	77.23	84.37	81.96	75.21	76.11	76.81
7pm-11 pm	78.52	75.32	82.08	80.28	76.30	74.31	73.36

Source: Bangladesh Environment 2000

The two tables show the huge gap between the acceptable (above) and existing (below) noise level.



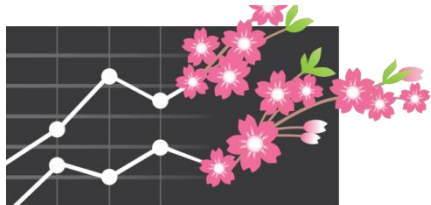
Air Pollution - Pictorial Views from the Newspaper



Air Pollution – Source and Effects to Human

Air pollution is the introduction of chemicals, particulates, biological materials, or other harmful materials into the Earth's atmosphere, possibly causing disease, death to humans, damage to other living organisms such as food crops, or the natural or built environment.

Sl	Source	Byproducts	Effects to Human
1	Vehicles	Co ₂ , Co etc.	Cardiovascular disease, COPD and asthma, Cancer, Cystic fibrosis etc.
2	Brickfields		
3	Industries		
4	Constructions		



Food Adulteration-Report from the Newspaper

- Food adulteration a silent killer in Bangladesh. **daily sun** TRUE & IMPARTIAL
- Proportion of adulterated food items on the market varied between 70 and 90 percent. **The Daily Star**
- Food adulteration new threat to Public Health. **FE** The Financial Express 14.3.2014
- Govt. officials take bribe to approve adulterated food. **Dhaka Tribune**

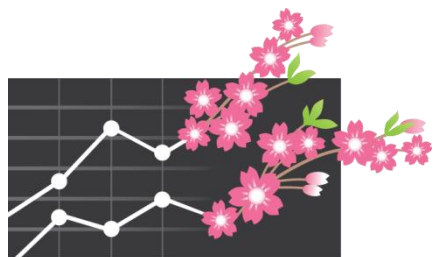
March 21, 2014.

Employees types	Organisations	Source	Bribe amount
Sanitary Inspectors	Local government organisation Health Department	retailers	Tk200-Tk400
Sanitary Inspectors	Local government organisation Health Department	Owners of bakeries, restaurants	Tk500-Tk1000
Field Officers	BSTI	Small and medium factories	Tk5000- Tk10,000
Field Officers	BSTI	Big Factories	Couldn't be found
Employees	Customs houses related laboratories	Sample testing of imported goods	Tk1000- Tk1500
Employees	Customs Houses	Approval certificate after sample testing	Tk500- Tk800

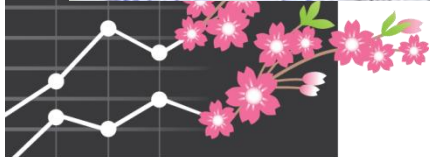


Food Adulteration-What Chemicals are using ?

SL	Chemical Name	Systematic Name	Uses	Effects to Human
1	Formaldehyde	Methanal (CH ₂ O)	Fruits, Fishes etc. for delaying decay.	Causing Cancers
2	Dye (Fabric Color)		Coloring Foods, Drinks etc.	Cancer and Other Serious Risks
3	Urea Fertilizer	CO(NH ₂) ₂ .	Whitening Rice	Distrubances of the kidneys, lungs . liver and cause cancer
4	Carbides can		Riping pre-mature fruits	Distrubances of the kidneys, lungs . liver and cause cancer



Food Adulteration-Pictorial Views from the Newspaper



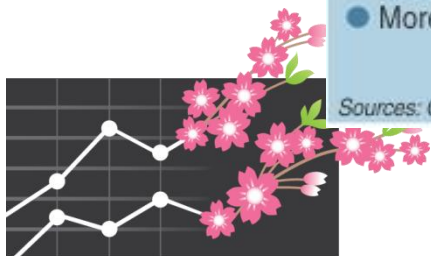
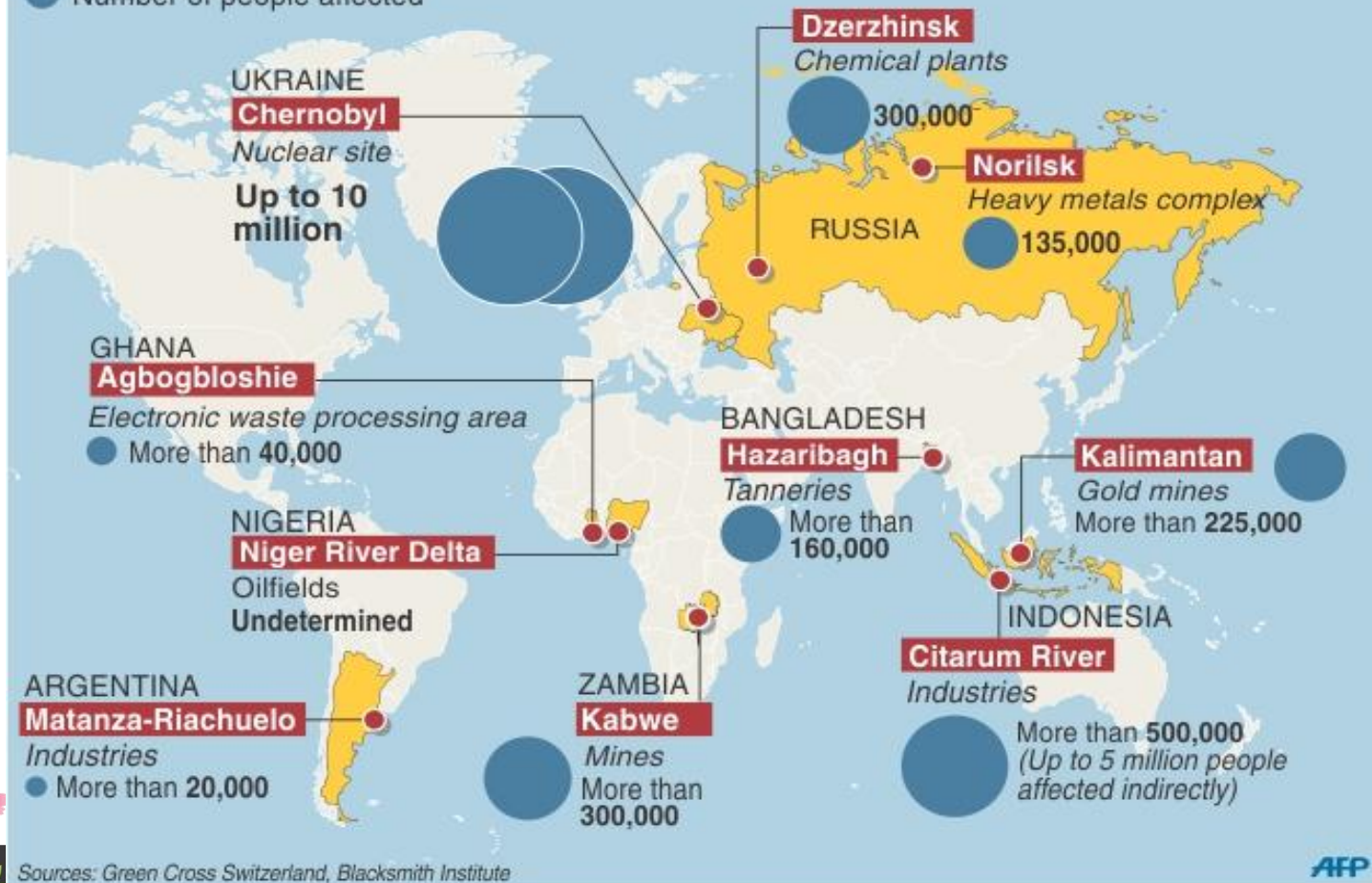
Water Pollution in Bangladesh



WORLD'S MOST POLLUTED PLACES

Top 10

● Number of people affected

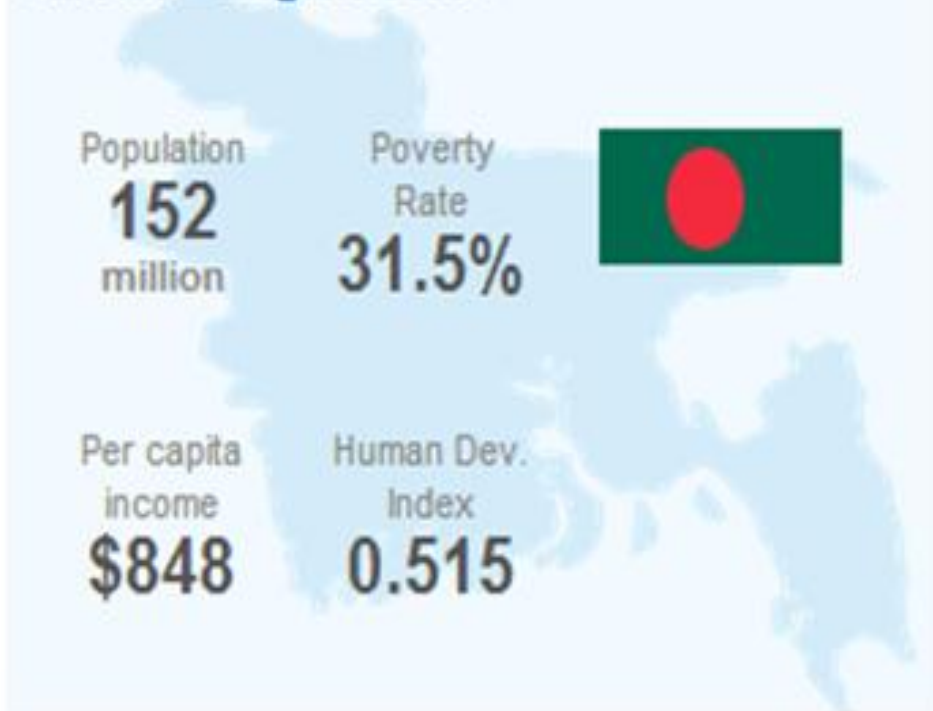


Bangladesh A Progressive Nation in the World

Millennium Development Goal

Human Development Index

About Bangladesh >



Source: <http://www.bd.undp.org>

Rank		Country	HDI	
New 2013 Estimates for 2012 [1]	Change in rank between 2013 report to 2011 report [1]		New 2013 Estimates for 2012 [1]	Change compared between 2012 data and corrected 2010 data [1]
142	▼ (5)	 Republic of the Congo	0.534	▲ 0.005
143	▼ (1)	 Solomon Islands	0.530	▲ 0.008
144	▼ (1)	 São Tomé and Príncipe	0.525	▲ 0.005
145	▼ (2)	 Kenya	0.519	▲ 0.008
146	—	 Bangladesh	0.515	▲ 0.007
146	▼ (1)	 Pakistan	0.515	▲ 0.003
148	—	 Angola	0.508	▲ 0.006

Source: www.en.wikipedia.org



Mortality Analysis in Bangladesh and Future

- We the young actuaries are trying to develop a Mortality Table for Bangladesh.
- It is the 2nd step to represent Bangladesh Mortality Trend in the 30th International Congress of Actuaries.
- We have to go ahead more
- We believe in heart to achieve our dream within a short time.
- Thanks all for their kind cooperation and continuous support.



Dedication and Acknowledgement

Dedicated to:

- Late Shahna Nargis – My ever Loving Sister.
- Late Aminul Islam - My ever respectable elder brother.
- Late AR Bhuiyan – My Mentor in Morlality Investigation.

Acknowledgement:

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About the Author

M. Ahsanul Haq is highly dedicated volunteer for the Actuarial Profession in Bangladesh. He is one of the leading person to form the Actuarial Society of Bangladesh (ASB) and the founding Treasurer. He is engaged in investigating the **Mortality Trend in Bangladesh Life Insurance Industry** and physically verified more than 500 death cases all over the country. His research paper was presented in the **29th International Congress of Actuaries (ica2010 Cape Town South Africa)**. He has 17 years professional experience in Life Insurance Management in home and abroad. He served in all the most technical departments - Claims, Underwriting, Reinsurance, Servicing, Human Resource & Administration, Development Administration including Actuarial and Insurance Education, Training etc. He participated in many International & National Professional Seminars around the world.

Professionally he is an Actuary Trainee in the Institute and Faculty of Actuaries, UK. Academically he achieved **M. Sc** degree with **B. Sc (Honors)** in **Statistics** from University of Rajshahi, the 2nd largest University in Bangladesh.

He is involved in many positive Social Movement in Bangladesh. He is a Nature Photographer and popular writer about Traveling, Birding, Adventure etc. His photographs were exhibited, published in home and abroad. The Encyclopedia of Flora and Fauna Bangladesh is a prestigious national publication by the Asiatic Society of Bangladesh where his bird & Wildlife photographs and articles were published. His write-up and photographs have been publishing since 1982 in the most leading newspapers, magazines in Bangladesh. In his leisure time he like to listen music and passing time with family.



Mr. Paul Thronton the Former President of IAA with *M. Ahsanul Haq* in ica 2010 South Africa



M. Ahsanul Haq as the Speaker of Mortality in **ica 2010** Cape Town, South Africa



M. Ahsanul Haq 1st from the right

Mortality Trend in Bangladesh by *M. Ahsanul Haq*

E-mail and Contacts



M. Ahsanul Haq

Treasurer

Actuarial Society of Bangladesh

www.actuariesbd.org

E-mail: ahsan@actuariesbd.org

ahsan21aug@gmail.com

Mobile: +88 01552483977

