SUMMER TRAINING REPORT

By

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Really, nothing can be accomplished alone. It's the direction, guidance, involvement, support and prayers of many that results into realization.

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Thanking You

Rupal Jain

CONTENTS

ABBREVIATIONS

- Covid19 – Corona Virus Disease
- WHO – World Health Organization
- RNA – Ribonucleic Acid
- ICMR – Indian Council of Medical Research
- NFHS – National Family Health Survey
- ehealth – Electronic health
- HCI – Human Computer Interaction
- MARS – Mobile Application Rating Scale
- EMR – Electronic Medical Record
- EHR – Electronic Health Record
- OECD- Organization for Economic Co-operation and Development
- HIT- Health Information Technology
- IOM- Institute Of Medicine
- AYUSH- Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homeopathy

PART 1 : REPORT ON WORK FROM HOME (ASSIGNED BY FACULTY)

LOCKDOWN IMPACT ON HEALTH SEEKING BEHAVIOR

OF INDIVIDUALS IN INDIA

AGED 15-75 YEARS

INTRODUCTION

The outbreak of Covid19 has caused concerns throughout the world. It has been declared as Pandemic by the WHO. The outbreak of Covid19 globally, occurred in China in late December 2019, in Wuhan city. In India, first case of Covid19 was reported on 30 January 2020. Corona viruses are single stranded RNA viruses, which can infect humans as well as animals. Owing to the outer appearance of the virus in the form of surface projections like solar corona (crown like projections), these viruses are named as Corona viruses.

The measure taken by the Govt. of India in order to combat this pandemic was lockdown (on 24th March 2020) all over the country when the COVID-19 cases in India were approximately 500.Lockdown was carried out in four phases from 24th march 2020 to 31st May 2020 and after that Unlock phases were carried out from 1st June 2020.

Lockdown has changed the lives of people, both in the positive as well as the negative manner. Covid19 has impacted the education, jobs, businesses and economy at large and the people who were not aware of the steps of hand washing and their benefits, are now following it very genuinely and, also informing others of the same. People, who always used to rely on the outside food, are trying to make healthy and delicious food for them. Lockdown has led people relish their memories spent with others, talking to old friends, and making new relations.

Lockdown has advanced to many transitions, these changes are in several forms, like the way of greeting people has changed, i.e., from handshake to namaskar. Our unnecessarily stepping out of homes has reduced. We have started stockpiling the food supplies and using

the resources in a judicious way. We have learnt to limit our wants and demands in life and trying to stay happy with what we have at present.

Online learning is one of the huge changes due to Covid19, online education has got a major boost. Schools and colleges have started taking online classes, conducting webinars, online courses etc. such that the studies of students are not hampered in any way. Second major change is Work from home activity; employed people have started working online from home, in order to be equally productive even in this situation of pandemic. The third major change, as already mentioned above, is that we have become more hygiene conscious. Fourthly, people have become more health conscious and started doing physical activities like yoga at home. Also, with that the rest of the members of family other than females have started doing domestic chores. The fifth major change due to lockdown is the reduction in consumption of alcohol and cigarettes/bidis, may be due to non-availability of them during lockdown.

Now, the big question arises that whether people continued these changes, once the lockdown was lifted?

To get the answer of this question to some extent, we have created a survey for the people of India of age group 15-75 to understand the fact that whether people would like to continue with these changes or will return to their original lives as before.

Our research work is based on the effect of lockdown mainly on 4 health related behaviours of lifestyle-

In a broad way, we can say lifestyle is a way or style of living; it is the interests, opinions and behavioral orientations of an individual, group or culture. There may be many variables associated with lifestyle like gender, age, parental and household characteristics, substance use (like smoking and alcohol use), physical activity, dietary intake, sedentary behavior etc.

- Physical activity
- Eating habits
- Alcohol Consumption
- Smoking/tobacco consumption

Alcohol consumption has been increasing in India gradually. Although, majority of the people are not the regular alcohol consumers but are occasional drinkers. According to recent data published by the WHO, globally the total per capita of alcoholic beverages consumption by individuals above 15 years of age is 6.2 lit of pure alcohol per year, and to about 5.4 billion litres alcohol consumption in 2016 in India.

Around 34.6% adults in India are smokers (out of which 47.95 are males and 20.3% are females). 145 adults use smoking tobacco, while 25.9% adults use smokeless tobacco. The prevalence of smoking has dropped down in India. From about 11.5% prevalence rate in 2005, it has reduced to 9.8% in 2020 and is estimated to further decrease to 8.5% by 2025. The reason may be the strict implementation of the tobacco control policies.

According to ICMR, physical inactivity is very common in India. A report shows that more than 50% Indians are physically inactive and about less than 10% engage in recreational physical activity. At present, people are very much accustomed to the sedentary lifestyle.

According to NFHS, most of the Indians eat unbalanced diet. Over half of the Indians, especially women, have access to unbalanced diet which is devoid of fruits, green leafy vegetables, pulses, meat and milk products, that are very much essential to lead a healthy life.

RESEARCH QUESTION – What is the effect of lockdown on the health-related behaviours

of individuals in India of age group 15-75 years?

GENERAL OBJECTIVE – To study the change in lifestyle related health parameter among people during lockdown.

SPECIFIC OBJECTIVE -

- To study the change in smoking/tobacco consumption, alcohol consumption, physical activity and eating habits of people.
- To evaluate the difference in the health-related behaviours of men and women.

METHODOLOGY

Study Design –

- Descriptive Case Report (Cross-sectional Survey)
- Qualitative Study

Sample Size - 152 responses were collected.

1. Primary data collection
2. Questionnaire was used

Primary data was collected in the form of a questionnaire by the creation of Google form.

The data collected was analysed and findings were made as indicated below.

RESULTS AND CONCLUSION

The responses have been collected by 152 persons across the country, out of which 88 (58%) were females, and 64 (42%) were males.

FINDINGS

I. PHYSICAL ACTIVITY

92% people believe that lockdown imposed a change on their physical activity.

Different Physical Activity by people Pre, During and Post Lockdown

Physical Activity	Pre lockdown	During lockdown	Post lockdown
Walk/Gym	124/152=81.57%	72/152=47.36%	104/152=68.42%
Domestic task/ Household work	33/152=21.7%	61/152=40.13%	38/152=25%
Dance/Aerobics/Zumba	23/152=15.13%	39/152=26.65%	26/152=17.10%
Yoga/Meditation	10/152=6.57%	32/152=21.05%	25/152=16.44%
Exercise	22/152=14.47%	27/152=17.76%	26/152=17.10%
Playing Outdoor Games	30/152=19.73%	28/152=18.42%	29/152=19.07%
Cycling	4/152=2.63%	0%	6/152=3.94%
Swimming	7/152=4.60%	2/152=1.31%	4/152=2.63%

- The above findings clearly show that the different physical activities adopted by people have increased during the lockdown as compared to pre lockdown conditions, except few of the activities like gymming, cycling, swimming and playing outdoor games, which the people might be unable to do due to Covid19 restrictions (as they were bound to stay home).

- The major increase has been observed in domestic task or the household work from around 21% pre lockdown to 40% during lockdown. Similarly, some other activities like Dance, Yoga and Exercise have also notably increased.

- On the other hand, if we compare the physical activities during and post lockdown, majority of the physical activities have reduced further with the end of lockdown. This may signify that physical activity was improved during the lockdown period but has

come back to original conditions as before lockdown. But few activities like cycling, swimming, playing outdoor games and going to gym have resumed again after the completion of lockdown.

Duration of Physical Activity Per Day (Pre, During and Post Lockdown)

Time Duration	**Pre Lockdown**	**During Lockdown**	**Post Lockdown**
Less than 30minutes	36 respondents	53 respondents	40 respondents
30-60 minutes	70 respondents	60 respondents	72 respondents
60-90 minutes	35 respondents	26 respondents	26 respondents
More than 90 minutes	11 respondents	13 respondents	14 respondents

- The above findings may show that the number of people who were performing physical activity for 30 minutes or less have increased from 36 respondents (23.7%) to 53 respondents (34.9%) during the time of lockdown, which could imply that people started the physical workout during the period of lockdown.

- Also, the number of respondents performing physical activity for 30-60 minutes have increased from 60 respondents (39.5%) during lockdown to 72 respondents (47.4%) after lockdown.

- When asked, whether the people with improved physical activity during the lockdown, would like to incorporate this change in future also, 91 (60%) respondents say 'Yes'. 35 (23%) respondents say "No" and 26 (17%) people found this question 'not applicable' (which indicate that lockdown had no impact on their physical activity).

- Therefore, it indicates that majority of the respondents are willing to improve their physical activity health related behaviour in future, as compared to pre lockdown conditions.

II. EATING HABITS

84% respondents believe that lockdown has imposed a change on their eating habits.

Food Consumption Pre, During and Post lockdown

Type of Food	Pre lockdown	During lockdown	Post lockdown
Fruit and vegetables	102/152=67.10%	102/152=67.10%	104/152=68.42%
Homemade Food	104/152=68.42%	140/152=92.10%	122/152=80.26%
Fast Food	99/152=65.13%	15/152=9.86%	32/152=21.05%
Nutritious Food/ Balanced Diet	48/152=31.57%	63/152=41.44%	62/152=40.78%

- Most of the people were consuming all the three meals (breakfast, lunch and dinner) of the day properly during the lockdown and when asked about which kind of food consumption has been reduced by the people during lockdown, majority of the people say that their fast food consumption has been reduced and most of the people are willing to follow this kind of eating habit in future, i.e. intake of less fast food.

- Therefore, it indicates that most of the respondents are willing to change their eating behavior; 45% people responded "Yes, to some extent" and 45% people responded "Yes, definitely.

III. SMOKING

Out of the 152 responses collected, only 12 are smokers, rest 140 are non-smokers. (Male=10, Female=2)

The cigarette/bidi consumption by the smokers Pre, During and Post lockdown

Cigarette intake	Pre lockdown	During lockdown	Post lockdown
Less than 5 cigarettes	9 respondents	7 respondents	8 respondents

5-20 cigarettes	2 respondents	4 respondents	3 respondents
More than 20 cigarettes	1 respondent	1 respondent	1 respondent

- The above data indicates that consumption of cigarettes has reduced after lockdown and people are willing to take less than 5 cigarettes.
- When asked that whether people who smoke less during lockdown, would like to continue this habit further, 67% people said 'Yes', 8% people said 'No' and 25% said 'Maybe'.
- Therefore, it indicates that people are willing to change their smoking health related behaviour post lockdown.

IV. ALCOHOL CONSUMPTION

Of the total 152 responses, only 31 respondents are alcohol consumers (Male=24 and Female=7). Out of the 31 responses, only 4 are regular drinkers and rest 27 are occasional drinkers.

Alcohol consumption pattern Pre, During and Post Lockdown

Alcohol intake	**Pre lockdown**	**During lockdown**	**Post lockdown**
No consumption	10 respondents	16 respondents	12 respondents
Less than 30ml	5 respondents	6 respondents	**7** respondents
30ml	3 respondents	3 respondents	5 respondents
60ml	8 respondents	3 respondents	5 respondents
90ml	1 respondent	0 respondent	0 respondent
120ml	3 respondents	2 respondents	1 respondent
More than 120ml	1 respondent	1 respondent	1 respondent

- The above data indicates that alcohol consumption has reduced a bit as compared to pre lockdown and further increased post lockdown. During lockdown the consumption was not as much as compared to pre lockdown, may be due to the non-availability of alcohol as per the COVID-19 restrictions.

- Therefore, most of the people did not change their alcohol related health behavior post lockdown.
- When asked that whether people with reduced alcohol consumption during the lockdown period, would like to continue this change in future also, 10 (32%) responses were ‘Yes’, 4 (13%)were ‘No’,13 (42%) were ‘Maybe' and 4 (13%)were ‘Not applicable’.

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PART 2 : REPORT ON ONLINE COURSE

Improving Global Health: Focusing on Quality and Safety

Course Description: Harvard University through edX platform provides an audit course on Improving Global Health through focusing on Quality and Safety. This course is of approx. 24 hours duration. This course is of intermediate level with 8 Lessons. It covers all the major aspects of quality and safety like Burden, Measurement, Standards, Improvement, Legal System and Regulation, Management etc.

Objective: To learn fundamentals of Quality and Safety in global scenario and help improving healthcare.

Course Content

Lesson 1	Burden
Lesson 2	Measurement
Lesson 3	Standards
Lesson 4	Improvement
Lesson 5	IT&Data
Lesson 6	Management
Lesson 7	Patients
Lesson 8	Public Systems

Learning Methodology: This course uses various types of learning methods to explain concepts of digital marketing. This includes:

- Lectures
- Case Studies
- Practical examples
- Discussion with Various Healthcare Providers

All this is covered through short video tutorial which are easy to understand and provided an opportunity to learn at our own comfort level. After every session in a module it conducts a simple test which helps us to apply the learning of that session. Also, with that there are open discussion within session where you can write down your answers to the questions asked. At every session there is summary of all previous sessions to recall.

KEY LEARNINGS

Lesson 1-BURDEN

It consists of two parts-

1. Burden and Harm – Dr.David Gates
2. Tuberculosis – Madhukar Pai

Burden and Harm – Dr.David Gates(Chief Innovation Officer at Brigham and Women's Hospital)

- Quality has six aims according to Institute of Medicine i.e Safety, Timely, Effective, Equitable, Efficient and Patient Centered. According to him, causes of Burden and Harm are Adverse drug event due to medication, Hospital Acquired Infection (HAI), fall, pressure ulcer, surgical complication and Deep Venous Thrombosis (DVT).In this Adverse Drug events can be prevented 70%, HAI probably in order of 80% by proper precautions and hand washing techniques and falls can be prevented by profiling people according to their risk of fall.
- In Low- and Middle-Income Countries (LMIC's) like India, Adverse drug effect is low as fewer medications are only used here and dangerous medications are actually quite expensive & infections are common. In LMIC's cause of death is little uncertain but some are counterfeit drugs, unsafe injections and birth related injury.
- In Ambulatory care, the big issues are Adverse drug events (seven times as many as record itself), Diagnosis related error, Laboratory follow-up (especially cancer), surgery, referrals.
- There was also discussion regarding Medication errors in which it is stated that 28% preventable adverse drug effect are due to medication error. Error occurs 50% at the ordering time,10% at pharmacy end, 30% at the administration stage, 10% occur at

transcribing stage. To reduce error, computerize prescribing or order and checking of patient allergy to the drug should be checked.

- In India, to reduce Medication error and Adverse drug effect referential material available by web, concentrated drugs, electronic information should be sorted.

Tuberculosis – Madhukar Pai (Epidemiologist)

- Giving tuberculosis background and burden Pai states that majority of patient deaths is from Drug-sensitive TB and it is mainly because they received care too late, received no care at all and care managed between public & private sector.
- In past 15 years, TB has decreased 20% but still 1.8 million deaths are occurring every year and numbers of TB new cases have also gone up.
- In India there is 100% DOTS coverage in public sector. Out of all the cases only half a million people are lost. Only 60% get the right diagnosis, out of them 50% get the treatment and only 40% finish through the line.
- The only problem is in diagnosis. Whereas in Private sector care scenario is different.2/3rd cases are managed by 80,000 pharmacists, they are the first care provider and they only spend 1 min with suspected patient by asking only one question by not referring them and by not giving any TB medication.
- Also, AYUSH practioner not dispending TB medicine and pertain multiple nonspecific antibiotics therapies. They suspect TB after long time, then only refer patient for chest X-Ray not sputum test.
- For improving Post Diagnostic TB care in Private sector of India follow up and data keeping of patient should be done with Smart pill box, daily therapy, adherence call centres, free drugs and GeneXpert testing. In public sector quality improvement is needed with all above measures.

Lesson 2-MEASUREMENT

It consists of two parts-

1. Quality Variation – Jishnu Das
2. Global Metrics – Neik Klazinga

Quality Variation- Jishnu Das (Economist at World Bank)

- Discussing about the state of health care in India, Jishnu Das state that South part of India is better performing than North. He also state that only 5% receive correct treatment while 40-45% receive the things that are not totally correct, while 50-55% didn't get right treatment at all.
- And the reasons for this are that firstly, doctor doesn't have knowledge because they are not properly trained, secondly, they are not putting enough effort because of extremely distracted environment, thirdly, doctor is getting paid for something which they know is not right. There is Know-Do-Gap pertaining within doctors in India
- He also discussed about variation in trained public sector doctor and untrained private sector doctor in as providing time to the patient in health care facilities and there is 50% lack of effort in whole story.
- In South and North India 75% of Health workforce has no medical knowledge but still condition is better in south than north because of more fully qualified doctors with knowledge and the people working under them without any formal medical training also have good knowledge. The condition of poor is worse at north:
    a. Because of Less effort by Public doctor.
    b. Because of Less knowledge of Private doctor.
- He mentions three globally applicable reducible metrics for quality of care:
    a. Consultation Time.
    b. Number of questions asked about Health.
    c. Number of physical exams that he or she did.

Global Metrics- Neik Klazinga (doctor and a professor of social medicine at the University of Amsterdam, also working in OECD, Paris)

- The three main components of the OECD's mission to improve healthcare quality are Policy analysis, Indicators, and International comparative statistics.
- In Indicators of Focus, the International Comparative Indicators are Primary care, Hospital care, Mental Health Care and Infectious diseases. Initial group of Indicators are Acute care and cancer care.
- The health care quality Indicator has grown from admission rates, potential avoidable hospital admissions, prescription data.
- Another indicator was Prevention quality indicators also known as Ambulatory Care sensitive conditions. It is an indicator that can be positively impacted by evidence-based ambulatory care.
- To measure health care quality right data system i.e. broad enough data system is required. In Low Middle Income countries if they do not have data developing universal health coverage should be started and social insurance system should be maintained.
- Data should be captured, and overtime complication rate should be overviewed, and results should be seen. Quality is an important issue and data should be collected through prescription, payments, research, admission rates. Cancer and other conditions registries should be maintained.

Lesson 3-STANDARDS

Legal System and Regulations- Allen Kachalia (Chief Quality Officer, Brigham and Women's Hospital)

- Three ways that the law helps assure that we have high quality or safe care in country. These are Regulation, Liability System, Financial Incentives & Penalties.
- Regulation sets minimum standards which practioner or hospital meet, if it wants to operate. Liability System is a system of accountability.
- Affordable Care Effect (ACA) is an example of medication system and Financial Incentives & Penalties.
- Joint Commission Accreditation process covers two-patient identifiers, handwashing, medical regulation, fall precautions, workspace area, hospital airflow, patient handoffs.
- Nurse staffing ratios regulation regulates the maximum number of patients taken care of by each nurse. Each floor has different ratios.
- Legal definition of negligence is if a physician acts unreasonably and that unreasonableness causes a patient harm, that's negligent.
- 16-17% cases are due to negligence i.e. 1 in 6 and only 2% of time patient claims a compensation for negligence not 98%. Role of malpractice system is to compensate patients for injuries and deterrence effect in negligence.
- Defensive medicine is providing care that is unnecessary for the purpose pf reducing legal risk. According to research U.S healthcare spends around $45 million on defensive medicine.
- Two most common factors that most often motivate people to sue their doctor are
  - Severity of injury.
  - Relationship between patients and physician.

Lesson 4-IMPROVEMENT

Quality Improvement - Maureen Bisogano (President Emerita and Senior Fellow, Institute for Healthcare Improvement)

- Maureen highlight ways to improve patient-centered care with new ideas, building will, execution skills.
- The four major steps within PDSA cycle are Plan, Do, Study, Act.

Lesson 5-IT & DATA

Health Information Technology – Julia Adler-Milstein (Associate Professor, University of Michigan)

- Electronic Health Record (EHR) gives information about you and your health history. The tools which make up an EHR are Clinical notes, Results and Results management, Electronic Ordering and Decision support.
- 50% of U.S doctors or hospitals have EHR and financial incentives from U.S government has contributed to the large Her adoption surge in the U.S in the past five years.
- Different approaches for connectivity are point-to-point record, patient-controlled records, and longitudinal records.
- HIT to be most helpful in improving quality of care in two areas i.e. Medication safety, Clinical decision support.

Lesson 6-MANAGEMENT

Role of Management – Raffaella Sadun (Associate Professor, Harvard Business School)

- Professor Sadun created a framework for understanding management by studying many average organizations. She and her team studied whether or not processes that matter for the performance of private sector organizations are relevant in healthcare and they find that you can take a management measurement tool and apply it in healthcare, high levels of within-country variation in performance, association between management scores and mortality.
- In study, high management scores were correlated with Lower AMI mortality rates (AMI: heart attack) and AMI mortality is a good measure of Hospital efficiency because Hospitals have little say in selecting the patients that they get.
- According to her, middle managers are important to focus on in quality research as they are not too far from the shop floor and are far removed from the CEO and give a fresh perspective.
- She also highlighted three findings from her research on hospital boards of directors for achieving high management scores i.e. hospital boards with good management score are more systematic at measuring quality of care, are proactive in monitoring what CEO's do and reward CEO's in accordance with their activities.
- She mentions critical steps for improving organizational effectiveness which are self-evaluation, benchmarking against peers, addressing weakness.

Lesson 7-PATIENTS

It consists of three parts:

1. Patient-Centered Care – Ronen Rozenblum
2. Maternal and Newborn Care – Margaret Kruk
3. New Technology – Felix Greaves

Patient-Centered Care – Ronen Rozenblum (Director of Business Development, Center for Patient Safety, Research, and Practice, Brigham and Women's Hospital)

- The Institute of Medicine (IOM) defined patient-centered care as the care that is respectful and responsive to the patient needs, and perspectives, and values, and ensuring that patient values guide all clinical decisions.
- Six domains of quality care are safety, effectiveness, efficiency, timeliness, patient-centered, equitable. Ronen states that patient experience affect outcomes which are mortality, morbidity, patient adherence, compliance.
- To measure patient experience HCAHPS(Hospital Consumer Assessment of Healthcare Providers and Systems) is a tool that can be added by specific hospitals to allow them to collect information specific to their interest with strict core guidelines in order to benchmark and thus allow for the comparison of different hospitals and also aims to measure overall satisfaction with a hospitals.
- Different levels for change to improve the culture of patient experience are Personal level, Microsystem/Unit level, Organizational level and External level.

Maternal and Newborn Care – Margaret Kruk (Associate Professor of Global Health, Harvard T.H. Chan School of Public Health)

- The features of high-quality delivery facilities are Around-the-clock supervision of patients, a skilled team (with midwife or generalist) that oversees regularly, an obstetrician less than 30 minutes away, a low-intensity delivery with family present.

- A key opportunity to improve healthcare quality in many countries is by increasing skills and motivation of staff.
- In women's experience in delivery kindness and interpersonal care affect most to women when choosing a delivery facility. The primary causes for low quality of care, including abuse and disrespect are under-motivation, culture, lack of dialogue between patients, providers and community.

New Technology – Felix Greaves (Deputy Director, Science and Strategic Information, Public Health England)

- The disadvantages Felix discusses to use online based data to rate hospitals are selection bias, doesn't reflect clinical care, fake ratings (non-informed ratings).
- The advantages Felix discusses to use this media-based method of evaluating hospitals are increases transparency, gives voice in system, breaks down barrier between patients and doctors.
- Regarding social media Felix stated that people tweeting at hospitals in England were 4-5 per hospital, per day.
- By sending SMS questionnaire, by mobile applications advantage can be taken to assess physician effort through mobile phone.

Lesson 8-PUBLIC SYSTEMS

It consists of three parts:

1. The Quality Movement – Don Berwick
2. National Strategy and the Case of Mexico – Julio Frenk
3. World health Organization – Ed Kelley

The Quality Movement – Don Berwick (President Emeritus and Senior Fellow, Institute for Healthcare Improvement)

- The reasons that healthcare has been slow to embrace the science of quality improvement were fragmented professional silos, inability to see defects.
- There were quality movement in healthcare which were categorized as Era 1, Era 2, Era 3. Era 1was defined by professional excellence and allowing the medical profession to police itself, known as professional Heroism. Era 2 was defined by rise of the metrics industry and an emphasis on individual accountability. To shift from Era 2 to Era 3 incentive complexity reduction, stronger voices for patients and families and focus on improvement sciences were the steps.
- FOUR principal categories of improvement sciences that Don Berwick mentions were systems, variation, psychology, epistemology.
- The triple aim is the Better care, Better health and Lower costs.
- IOM six aims for healthcare improvement are safety, effectiveness, efficient, timely, patient-centered and equitable.

National Strategy and the Case of Mexico – Julio Frenk (Former Dean, Harvard T. H. Chan School of Public Health)

- Epidemiological transition is transition from acute infectious disease to chronic non-infectious disease.
- In effective coverage Frenk emphasize on three components for quality universal care which are universal enrolment, universal coverage, universal effective coverage.

- Three pillars of reform for giving services safely, effectively and patient-centered were the financial protection, the insurance and innovation in the delivery.

World health Organization – Ed Kelley (Director, Department of Service Delivery and Safety, WHO)

- The first World Health Assembly resolution on Patient Safety was passed on 2002.
- Ed Kelley discusses the work that his team has been doing on in South Africa with the Office of Health Standards compliance and the initial issue was expansion of buildings, but lack of staff or mechanisms to implement and measure high quality care.
- Assessing patient experience and how well the care is offered must go hand in hand with do you have the basic tools to actually deliver the care