

Chapter 1 : 4 Factors That Shape Market Trends

RNA transcription in eukaryotic organisms occurs in the nucleus of the cell where the cell's DNA is located. In prokaryotic organisms that lack a membrane-bound nucleus, transcription occurs directly in the cytoplasm of the cell.

Every day, approximately 830 women die from preventable causes related to pregnancy and childbirth. Maternal mortality is higher in women living in rural areas and among poorer communities. Young adolescents face a higher risk of complications and death as a result of pregnancy than other women. Skilled care before, during and after childbirth can save the lives of women and newborn babies. Between 2000 and 2017, as part of the Sustainable Development Goals, the target is to reduce the global maternal mortality ratio to less than 70 per live births. Maternal mortality is unacceptably high. About 830 women die from pregnancy- or childbirth-related complications around the world every day. Almost all of these deaths occurred in low-resource settings, and most could have been prevented 1. In sub-Saharan Africa, a number of countries halved their levels of maternal mortality since 2000. In other regions, including Asia and North Africa, even greater headway was made. Between 2000 and 2017, the global maternal mortality ratio the number of maternal deaths per live births declined by only 2. However, increased rates of accelerated decline in maternal mortality were observed from 2010 onwards. In some countries, annual declines in maternal mortality between 2010 and 2017 were above 5%. Where do maternal deaths occur? The high number of maternal deaths in some areas of the world reflects inequities in access to health services, and highlights the gap between rich and poor. More than half of these deaths occur in sub-Saharan Africa and almost one third occur in South Asia. More than half of maternal deaths occur in fragile and humanitarian settings. There are large disparities between countries, but also within countries, and between women with high and low income and those women living in rural versus urban areas. The risk of maternal mortality is highest for adolescent girls under 15 years old and complications in pregnancy and childbirth is a leading cause of death among adolescent girls in developing countries 2, 3. Women in developing countries have, on average, many more pregnancies than women in developed countries, and their lifetime risk of death due to pregnancy is higher. In countries designated as fragile states, the risk is 1 in 54; showing the consequences from breakdowns in health systems. Why do women die? Women die as a result of complications during and following pregnancy and childbirth. Most of these complications develop during pregnancy and most are preventable or treatable. The remainder are caused by or associated with diseases such as malaria, and AIDS during pregnancy. Most maternal deaths are preventable, as the health-care solutions to prevent or manage complications are well known. All women need access to antenatal care in pregnancy, skilled care during childbirth, and care and support in the weeks after childbirth. Maternal health and newborn health are closely linked. It was estimated that approximately 2. It is particularly important that all births are attended by skilled health professionals, as timely management and treatment can make the difference between life and death for both the mother and the baby. Severe bleeding after birth can kill a healthy woman within hours if she is unattended. Injecting oxytocin immediately after childbirth effectively reduces the risk of bleeding. Infection after childbirth can be eliminated if good hygiene is practiced and if early signs of infection are recognized and treated in a timely manner. Pre-eclampsia should be detected and appropriately managed before the onset of convulsions eclampsia and other life-threatening complications. To avoid maternal deaths, it is also vital to prevent unwanted and too-early pregnancies. All women, including adolescents, need access to contraception, safe abortion services to the full extent of the law, and quality post-abortion care. Why do women not get the care they need? Poor women in remote areas are the least likely to receive adequate health care. This is especially true for regions with low numbers of skilled health workers, such as sub-Saharan Africa and South Asia. Globally in 2017, births in the richest 20 per cent of households were more than twice as likely to be attended by skilled health personnel as those in the poorest 20 per cent of households 89 per cent versus 43 per cent. This means that millions of births are not assisted by a midwife, a doctor or a trained nurse. In high-income countries, virtually all women have at least four antenatal care visits, are attended by a skilled health worker during childbirth and receive postpartum care. Other factors that prevent women from receiving or seeking care during pregnancy and childbirth are:

Chapter 2 : Urbanization - Wikipedia

I'd like to do a Fashion post about fashion trends and forecasting, since it's an area that I work in, and find quite fascinating. In fact, I am going to write two posts on fashion trends, the first one.

From the above discussion of trends in random data with known variance, we know the distribution of calculated trends to be expected from random trendless data. The use of a linear trend line has been the subject of criticism, leading to a search for alternative approaches to avoid its use in model estimation. One of the alternative approaches involves unit root tests and the cointegration technique in econometric studies. The estimated coefficient associated with a linear time trend variable is interpreted as a measure of the impact of a number of unknown or known but unmeasurable factors on the dependent variable over one unit of time. Strictly speaking, that interpretation is applicable for the estimation time frame only. Outside that time frame, one does not know how those unmeasurable factors behave both qualitatively and quantitatively. Furthermore, the linearity of the time trend poses many questions: Research results of mathematicians, statisticians, econometricians, and economists have been published in response to those questions. If we consider a concrete example, the global surface temperature record of the past years as presented by the IPCC: Hence the trend is statistically different from 0. Goodness of fit r^2 and trend [edit] Illustration of the effect of filtering on r^2 . All have the same trend, but more filtering leads to higher r^2 of fitted trend line. The least-squares fitting process produces a value r^2 which is 1 minus the ratio of the variance of the residuals to the variance of the dependent variable. It says what fraction of the variance of the data is explained by the fitted trend line. It does not relate to the statistical significance of the trend line see graph; statistical significance of the trend is determined by its t-statistic. Often, filtering a series increases r^2 while making little difference to the fitted trend. Real data may need more complicated models [edit] Thus far the data have been assumed to consist of the trend plus noise, with the noise at each data point being independent and identically distributed random variables and to have a normal distribution. Real data for example climate data may not fulfill these criteria. This is important, as it makes an enormous difference to the ease with which the statistics can be analysed so as to extract maximum information from the data series. If there are other non-linear effects that have a correlation to the independent variable such as cyclic influences, the use of least-squares estimation of the trend is not valid. Also where the variations are significantly larger than the resulting straight line trend, the choice of start and end points can significantly change the result. That is, the model is mathematically misspecified. Statistical inferences tests for the presence of trend, confidence intervals for the trend, etc. Non-normal distribution for errors:

Chapter 3 : Norovirus Trends and Outbreaks | CDC

All trends follow a certain pattern in their evolution. When you know this pattern you can look for the pattern in connection with new changes in style and taste. If there are early signs that it is the trend process you will know how the rest of the process will evolve because the pattern is always the same.

Innovate How to Predict Trends Before They Happen Today more than ever, the success of an organization depends on its ability to prepare for change. Try this process to continually evaluate and predict trends before they occur. Getty Images We live in a period of increasingly rapid change. Technology, business, and culture are all evolving in fast and remarkable ways. Looking ahead and anticipating change is a complex task that takes the right combination of perspectives brought together in just the right way. Anticipating change is a key practice for success. Consider a trend like 3-D printing. It may seem only narrowly relevant to many businesses today. But what happens to the market when a toy company say, Lego starts allowing their toys to be downloaded and printed at home? Once a year, we host an Industry Forum: This first step frames the whole process. After assembling a group of leaders from a range of disciplines cutting across science research, editorial publishing, music publishing, digital media, film production, and academia, we posed a single question: Creating a clear focus is central to good collaboration and a meaningful outcome. With a clear, structured question it becomes possible to have people work together at once. Then, instead of individual perspectives, you get the result of perspectives multiplied by hundreds of interactions between those individuals as they discuss, debate, and generate ideas together. Every few minutes, we mixed up the groups to circulate the knowledge and ideas. Ideas and insights emerge when people are given an open, inviting, and interactive space in which to explore. This step intentionally creates that space and provides a model for reproducing it in the future. We gave lots of time to this step, asking participants to think big and small, broadly and specifically, and to say "Yes, and Once many ideas were generated, participants clustered them to combine common ideas and filter out others. In this step, they focused on trends that will have a high impact and manifest within the next three years. The very-low-impact trends perhaps, "new flavors of chewing gum" and the very-far-off trends say, "time travel" were filtered out, leaving the most relevant, most imminent trends organized and summarized. As trends emerged, participants wrote them down as trend statements--brief sentences that describe the trend and hint at its implications. Trend statements are necessary tools for giving life to the trend-mapping process and rapidly communicating complex ideas from person to person. Summarizing trends makes them easier to understand and talk about, which in turn makes it easier for an organization to put them on the agenda and begin building them into strategies. Finally, participants placed the trend statements on a large matrix. The vertical axis was for impact "How much impact will this trend have? No trends exist in isolation. Patterns in behavior are linked to developments in technology; trends in talent-demand are connected to how businesses are evolving, and so on. Trends are always highly interconnected and dependent on each other. A structured process for trend-mapping can help people collaboratively produce vital predictions. No process can fully predict the future, but an exercise like the Industry Forum is important for understanding context and what lies ahead. Businesses need processes for innovation and change, but perhaps more important, they need cultures where those things are happening informally and continuously. Feb 19, More from Inc.

Chapter 4 : What periodic trends of reactivity occur with the alkali metals? | Socratic

The environment includes advances in technology, economic trends, sociopolitical trends, the natural world, etc. and visual paradigms we have created. All these components of the environment (among others) contribute to current design culture.

The magical power of this shoes is louboutin shoes red that it makes you have no feeling of shoes. As if your own foot were dyed, the shoes are colorful, which you can pick them at your pleasure. Although it seems to sound weird, in my louboutin heels opinion, the shoes should be designed in this way. The five fingers style should replace of the arch style. It suits the beach, high land and louboutin flats mountain. You can wear it to travel around all the natural landscapes with varied topography. Patching it with a simple summer wear seems cheap louboutin shoes to be a nice idea. It will be definite the most fashionable costume in this summer. Perhaps you will enjoy the pictures which were shot by digi-cameras or your own cellphone camera when you soaked yourself in smiling and chatting with others by wearing the Five-Fingers shoes. March In the modern time, pets become more fashionable. Because the human beings want to dress their pets up to make them look more adorable. So we wrack our brains Jimmy Choo????? But nowadays, it changes a lot. The pets wear their clothes just like us, with different types of colorful????? Even sometimes, they will wear their clothes to participate in the pets beauty competition. In some present hot Hollywood pets movies, it is a commonly seen that the dog and cats wear skirts or gowns and earrings. That this is the case how people pay much attention to their pets. That is just so funny. Scientifically speaking, animals have got used to the wild world without wearing anything. Perhaps they are reluctant to be covered with something on their bodies, although their????? More seriously, it is possible to hurt their skins through spoiling the inner fiber organs by wearing clothes just because of the maladaptation. March A set of good sportswear designer jeans will do much favor to the athlete. In fact, the sportswear will decide who will win the final match to great extent. Why I diesel jeans say so? Just turn to those all-stars. Why they are more excellent and brilliant than others? The sport gift is may be their top priority, however, they calvin klein jeans just believe what they wear, they have a strong faith that coat armors they wear will bring them good luck, and the fact is indeed ed hardy jeans the case, although what they wear is not special at all. Just because of this, the average running shoes will be far behind the professional ones at the price. For most sports, the sportswear seem to be the key to success. A set of portable true religion jeans clothes will make the athletes more light-footed, such as swimming, running or doing gymnastics. The Burberry Jeans reason is simple, all these sports need speed, so the athletes will wear light to reduce the air hindrance. Would you like to buy a pair? In fact, take a moment and count to Rechargeable battery and charger are included. If a brand buys a fabric off a textile company that designs their own stuff then it can influence things. Before the fabrics are even made, the people designing the dyes to present have already come up with colour schemes, so in a way the influence starts way back at that process.

Chapter 5 : Maternal mortality

However, this digital transformation not simply facilitates a company's traditional method of doing business, but in several sectors the digital transformation in fact encourages new and innovative business models.

Trends are what allow traders and investors to capture profits. There are four major factors that cause both long-term trends and short-term fluctuations. These factors are government, international transactions, speculation and expectation, and supply and demand. Here are the four major factors: By increasing and decreasing interest rates, the U. Federal Reserve can effectively slow or attempt to speed up growth within the country. This is called monetary policy. By altering interest rates and the amount of dollars available on the open market, governments can change how much investment flows into and out of the country. Learn more in our Federal Reserve Tutorial. Countries that predominantly export, whether physical goods or services, are continually bringing money into their countries. This money can then be reinvested and can stimulate the financial markets within those countries. Speculation and Expectation Speculation and expectation are integral parts of the financial system. Expectation of future action is dependent on current acts and shapes both current and future trends. Sentiment indicators are commonly used to gauge how certain groups are feeling about the current economy. Analysis of these indicators as well as other forms of fundamental and technical analysis can create a bias or expectation of future price rates and trend direction. Supply and Demand Supply and demand for products, services, currencies and other investments creates a push-pull dynamic in prices. Prices and rates change as supply or demand changes. If something is in demand and supply begins to shrink, prices will rise. If supply increases beyond current demand, prices will fall. If supply is relatively stable, prices can fluctuate higher and lower as demand increases or decreases. While all of these major factors are categorically different, they are closely linked to one another. Government news releases, such as proposed changes in spending or tax policy, as well as Federal Reserve decisions to change or maintain interest rates can also have a dramatic effect on long term trends. The lowering of interest rates and taxes can encourage spending and economic growth. This in turn has a tendency to push market prices higher. In the short term, these news releases can cause large price swings as traders and investors buy and sell in response to the information. Increased action around these announcements can create short-term trends, while longer term trends may develop as investors fully grasp and absorb what the impact of the information means for the markets. A high demand for a currency means that currency will rise relative to other currencies. The Participant Effect The analysis and resultant positions taken by traders and investors based on the information they receive about government policy and international transactions create speculation as to where prices will move. When enough people agree on one direction, the market enters into a trend that could sustain itself for many years. Trends are also perpetuated by market participants who were wrong in their analysis. As more investors climb aboard to profit from a trend, the market becomes saturated and the trend reverses, at least temporarily. In some markets, such as commodities, supply is determined by a physical product. Supply and demand for oil is constantly changing, adjusting the price a market participant is willing to pay for oil today and in the future. As supply dwindles or demand increases, a long-term rise in oil prices can occur as market participants outbid one another to attain a seemingly finite supply of the commodity. Stocks fluctuate on a short and long-term scale, creating trends. The threat of supply drying up at current prices forces buyers to buy at higher and higher prices, creating large price increases. If a large group of sellers were to enter the market, this would increase the supply of stock available and would likely push prices lower. This occurs on all time frames. The Bottom Line As stated above, trends are generally created by four major factors: These areas are all linked as expected future conditions shape current decisions and those current decisions shape current trends. These policies effect international transactions which in turn effect economic strength. Speculation and expectation drive prices based on what future prices might be. Finally, changes in supply and demand create trends as market participants fight for the best price. Trading Center Want to learn how to invest? Get a free 10 week email series that will teach you how to start investing. Delivered twice a week, straight to your inbox.

Chapter 6 : Pertussis | Whooping Cough | About Outbreaks | CDC

Best Answer: For the atomic radius trend: The atomic radius tends to decrease as one progresses across a period because the effective nuclear charge increases, thereby attracting the orbiting electrons and lessening the radius.

Telecommunication NetApp Indonesia, the local unit of the American multinational storage and data management company, predicts three main information technology IT trends in Indonesia in Ana Sophia, Country Manager NetApp Indonesia, explained that numerous companies, all over the world, are currently experiencing digital transformation challenges. One simple example is the transportation app such as Grab, GoJek, or Uber on the mobile device through which consumers can order a vehicle or motorcycle including driver, a highly successful and innovative business model but one that came at the expense of earnings in the traditional transportation sector such as taxis and buses. Besides transporting the consumer, transportation app developers have been offering new and creative solutions to consumers: Go-Food for the order and delivery of food, Go-Massage to order a masseuse, Go-Clean to order cleaning services, etc. For existing companies it is important to adapt to the new digital reality in order to safeguard future revenue streams. Country Manager NetApp Indonesia Ana Sophia says not only internationally but also most companies in Indonesia are currently facing these challenges. Part of existing companies have already adapted but many more are still doing business in the traditional way although there does exist awareness to adapt to the digital reality. She detects three global IT trends that are to occur in Indonesia in The New Currency Data are the new currency, Sophia says. The explosion of data in the digital economy has fundamentally changed the way companies conduct business, including their business model, technology, and marketing. Some companies, such as the above-mentioned transportation apps, are even fully dependent on data. Others need data to determine their audience and to offer their products and services to this audience. However, Sophia believes that for many companies these data will become the key driver of their business model, hence being much more than just statistics. Such platforms integrate and simplify various services for its clients to build sophisticated applications and are therefore cost-efficient. Considering there is a lot of young and creative talent in Indonesia developers and programmers, this pool of talent is expected to choose for a comprehensive platform model for reasons of efficiency and effectiveness. Cloud Computing The third trend is cloud computing "the practice of using a network of remote servers hosted on the Internet to store, manage, and process data, rather than a local server or a personal computer". This is already being used by many companies in Indonesia for their data needs, Sophia says. The availability of cloud computing gives easy access to IT infrastructure that is required for innovation. One of the main advantages is cost-efficiency because it would be much more expensive for a company to set up its own data center than to use the existing facilities.

Chapter 7 : Ionization Energy Trends

Common Settings of Norovirus Outbreaks Describes settings where norovirus outbreaks commonly occur in the United States.

ShareCompartir Pertussis whooping cough is a common endemic disease in the United States, with peaks in reported disease every few years and frequent outbreaks. In , the most recent peak year, states reported 48, cases of pertussis “ and many more cases go unreported. The primary goal of pertussis outbreak control efforts is to decrease morbidity amount of disease and mortality death among babies; a secondary goal is to decrease morbidity among people of all ages. Identifying Pertussis Outbreaks Pertussis outbreaks can be difficult to identify and manage. Other respiratory pathogens germs often cause symptoms similar to pertussis. Also, pertussis does co-circulate with other pathogens bacterial and viral at times. Healthcare professionals commonly use polymerase chain reaction PCR tests to diagnose pertussis. PCR tests vary in their ability to correctly show who does not have pertussis specificity. This is important because if a test has a high specificity and someone tests positive, then it is very likely they actually have the disease. Since PCR tests vary in specificity, CDC recommends getting confirmation with culture a lab test where the bacteria are grown for at least one suspected case any time there is suspicion of a pertussis outbreak. False pseudo outbreaks of pertussis have resulted because of false positive test results with PCR. This highlights the importance of recognizing clinical signs and symptoms and practicing careful laboratory testing. Protecting Babies during Pertussis Outbreaks To reduce the risk of pertussis in new mothers and their young babies, CDC recommends that pregnant women receive Tdap vaccine during each pregnancy. The recommended time to get the shot is the 27th through 36th week of pregnancy, preferably during the earlier part of this time period. During outbreaks, prevention efforts should focus on improving rates of Tdap vaccination among pregnant women to reduce serious illness and possible deaths in vulnerable babies. Trends and Activity More Using Antibiotics during Pertussis Outbreaks More cases of pertussis are occurring and spreading through communities. Therefore, it may not be effective for health departments to spend a lot of time and resources looking for those exposed to pertussis extensive contact tracing and providing them with antibiotics to help prevent further pertussis infection post exposure antimicrobial prophylaxis, or PEP. Antibiotics may prevent pertussis disease if given before symptoms begin. However, there are no data showing that widespread use of PEP among contacts of people with pertussis works well to control or limit the size of pertussis outbreaks. Another important consideration is the overuse of antibiotics. CDC is engaged in actively promoting the appropriate use of antibiotics among healthcare professionals and patients. Given these considerations, CDC supports targeting PEP to people at high risk of developing a serious case of pertussis and to people who will have close contact with those at high risk of developing a serious case of pertussis, such as young babies. Active Screening during Pertussis Outbreaks Public health officials may consider active screening for symptomatic patients with suspected pertussis during outbreaks in settings such as schools, day care centers, and hospitals. Active screening for suspected cases potentially: Reduces exposure to people with pertussis Encourages timely medical evaluation and treatment of cases Promotes prompt administration of antibiotics to high-risk close contacts.

Chapter 8 : Trend Forecasting - Understanding Trends

Learning how these major factors shape trends over the long term can provide insight into how future trends may occur. Here are the four major factors: If government spending increases or.

What is a trend? A trend is a social process in which style or taste changes. This can be about changes in how we dress or what we eat or what we like to watch in television. There are different kinds of changes in style and taste. Some changes are short-lived and they are normally called fads. A lot of fashion changes are fads because they are only about one season or two. Some changes are long-lived and will end up being adopted by many people. And these changes are what I call trends. Who create new trends? We call them trendsetters, and they are a distinct group because of their personality. There is such a thing as a trendsetter personality and it makes trendsetters crave changes from time to time. Because of this they are very open to new innovative styles and will be the first to take on what is new. There are many trendsetters in groups such as, for instance, designers, artists, and gay men. Where will a new trend begin? Most trends start in large cities that have many trendsetters. From there the trend will spread to the rest of the country. On a global scale there are seven cities that again and again influence style and taste all over the world because of the number of trendsetters living there. How will a trend spread? The first step is that the new style or taste is accepted by many different trendsetters in groups such as designers, artists, young people, celebrities, wealthy people, and gay men. They go and mingle with other people who will observe the trendsetters and some of these people will copy the trendsetters. The trend process is a process of mingling, observing and copying that happen again and again between different groups of people, with the help of all kinds of different media, from magazines to Hollywood movies. How long times does a trend last? How long time will vary with how visible the object of change is. Hair styles change faster than underwear styles. Can you predict what will become a new trend? All trends follow a certain pattern in their evolvement. When you know this pattern you can look for the pattern in connection with new changes in style and taste. If there are early signs that it is the trend process you will know how the rest of the process will evolve because the pattern is always the same. What is important to be aware of is the behaviour of a certain group of individuals – the ones that we normally call trendsetters. Trendsetters are the most open and curious individuals. They are much more innovative than the average person. It is their behaviour that we want to analyse in order to understand trends. We can get some help in that from the fact that there are many trendsetters in certain groups of people:

Chapter 9 : Speak Up Archive: Where do Trends Begin?

Although the selection was a challenge, these are my top ten Human Resources trends of the decade. These Human Resources trends are presented in no particular order aside from the first trend, which has swamped HR the past couple of years.

Primate city The dominant conurbation s of a country can benefit to a greater extent from the same things cities offer, making them magnets for not just the non-urban population, but also urban and suburban population from other cities. Dominant conurbations are quite often primate cities , but do not have to be. For instance Greater Manila is rather a conurbation than a city: Economic effect[edit] As cities develop, effects can include a dramatic increase and change in costs, often pricing the local working class out of the market, including such functionaries as employees of the local municipalities. The drive for rapid urban growth and often efficiency can lead to less equitable urban development. Think tanks such as the Overseas Development Institute have proposed policies that encourage labor-intensive growth as a means of absorbing the influx of low-skilled and unskilled labor. In many cases, the rural-urban low skilled or unskilled migrant workers, attracted by economic opportunities in urban areas, cannot find a job and afford housing in cities and have to dwell in slums. Urbanization is often viewed as a negative trend, but there are positives in the reduction of expenses in commuting and transportation while improving opportunities for jobs, education, housing, and transportation. Living in cities permits individuals and families to take advantage of the opportunities of proximity and diversity. In many developing countries where economies are growing, the growth is often erratic and based on a small number of industries. For young people in these countries barriers exist such as, lack of access to financial services and business advisory services, difficulty in obtaining credit to start a business, and lack of entrepreneurial skills, in order for them to access opportunities in these industries. Investment in human capital so that young people have access to quality education and infrastructure to enable access to educational facilities is imperative to overcoming economic barriers. An urban heat island is formed when industrial and urban areas produce and retain heat. Much of the solar energy that reaches rural areas is consumed by evaporation of water from vegetation and soil. Vehicles, factories and industrial and domestic heating and cooling units release even more heat. When rain occurs in these large cities, the rain filters down the pollutants such as CO₂ and other green house gases in the air onto the ground below. Then, those chemicals are washed directly into rivers, streams and oceans, causing a decline in water quality and damaging marine ecosystems. First, the birth rate of new urban dwellers falls immediately to replacement rate, and keeps falling, reducing environmental stresses caused by population growth. Secondly, emigration from rural areas reduces destructive subsistence farming techniques, such as improperly implemented slash and burn agriculture. The mix of changing environmental conditions and the growing population of urban regions, according to UN experts, will strain basic sanitation systems and health care, and potentially cause a humanitarian and environmental disaster. The increase of food waste can raise environmental concerns such as increase production of methane gases and attraction of disease vectors. Accumulation of food waste causes increased fermentation, which increases the risk of rodent and bug migration. An increase in migration of disease vectors creates greater potential of disease spreading to humans. Depending on the various factors, such as level of urbanization, both increases or decreases in "species richness" can be seen. This means that urbanization may be detrimental to one species but also help facilitate the growth of others. In instances of housing and building devevelopment, many times vegetation is completely removed immediately in order to make it easier and less expensive for construction to occur, thereby obliterating any native species in that area. Other times, such as with birds, urbanization may allow for an increase in richness when organisms are able to adapt to the new environment. This can be seen in species that may find food while scavenging developed areas or vegetation that has been added after urbanization has occurred i. However, residents in poor urban areas such as slums and informal settlements suffer "disproportionately from disease, injury, premature death, and the combination of ill-health and poverty entrenches disadvantage over time. While urbanization is associated with improvements in public hygiene , sanitation and access to health care , it also entails changes

in occupational, dietary and exercise patterns. Overall, body mass index and cholesterol levels increase sharply with national income and the degree of urbanization. Throughout the world, as communities transition from rural to more urban societies, the number of people effected by asthma increases. The odds of reduced rates of hospitalization and death from asthmas has decreased for children and young adults in urbanized municipalities in Brazil. Similar to areas in the United States with increasing urbanization, people living in growing cities in low income countries experience high exposure to air pollution, which increases the prevalence and severity of asthma among these populations. Researchers suggest that this difference in hazard ratios is due to the higher levels of air pollution and exposure to environmental allergens found in urban areas. Furthermore, any amount of exposure to high levels of air pollution have shown long term effects on the Foxp3 region. The simplest explanation is that areas with a higher population density are surrounded by a greater availability of goods. Committing crimes in urbanized areas is also more feasible. Modernization has led to more crime as well. There is a greater awareness of the income gap between the rich and poor due to modern media. This leads to feelings of deprivation which can lead to crime. In some regions where urbanization happens in wealthier areas, a rise in property crime and a decrease in violent crime is seen. Some factors include per capita income, income inequality, and overall population size. There is also a smaller association between unemployment rate, police expenditures and crime. These areas have less social cohesion, and therefore less social control. This is evident in the geographical regions that crime occurs in. As most crime tends to cluster in city centers, the further the distance from the center of the city, the lower the occurrence of crimes are. People from one area are displaced and forced to move into an urbanized society. Here they are in a new environment with new norms and social values. This can lead to less social cohesion and more crime. Residents of rural areas and communities in the United States have higher rates of obesity and engage in less physical activity than urban residents. Mental health[edit] Urbanization factors that contribute to mental health can be thought of as factors that affect the individual and factors that affect the larger social group. At the macro, social group level, changes related to urbanization are thought to contribute to social disintegration and disorganization. These macro factors contribute to social disparities which affect individuals by creating perceived insecurity. Changes in social organization, a consequence of urbanization, are thought to lead to reduced social support, increased violence, and overcrowding. It is these factors that are thought to contribute to increased stress. It is the combination of urbanization with physical and social risk factors that contribute to mental health problems. As cities continue to expand it is important to consider and account for mental health along with other public health measures that accompany urbanization. Changing forms[edit] Different forms of urbanization can be classified depending on the style of architecture and planning methods as well as historic growth of areas. In cities of the developed world urbanization traditionally exhibited a concentration of human activities and settlements around the downtown area, the so-called in-migration. In-migration refers to migration from former colonies and similar places. The fact that many immigrants settle in impoverished city centres led to the notion of the "peripheralization of the core", which simply describes that people who used to be at the periphery of the former empires now live right in the centre. Recent developments, such as inner-city redevelopment schemes, mean that new arrivals in cities no longer necessarily settle in the centre. In some developed regions, the reverse effect, originally called counter urbanization has occurred, with cities losing population to rural areas, and is particularly common for richer families. This has been possible because of improved communications, and has been caused by factors such as the fear of crime and poor urban environments. It has contributed to the phenomenon of shrinking cities experienced by some parts of the industrialized world. When the residential area shifts outward, this is called suburbanization. A number of researchers and writers suggest that suburbanization has gone so far to form new points of concentration outside the downtown both in developed and developing countries such as India. It is called variously exurbia, edge city Garreau, , network city Batten, , or postmodern city Dear, Los Angeles is the best-known example of this type of urbanization. In the United States, this process has reversed as of , with "re-urbanization" occurring as suburban flight due to chronically high transport costs. The inability of countries to provide adequate housing for these rural migrants is related to overurbanization , a phenomenon in which the rate of urbanization grows more rapidly than the rate of economic development, leading to high

unemployment and high demand for resources. Nor is it between foreign and national interests. It is between rural classes and urban classes. The rural sector contains most of the poverty and most of the low-cost sources of potential advance; but the urban sector contains most of the articulateness, organization and power. So the urban classes have been able to win most of the rounds of the struggle with the countryside. According to research by the Overseas Development Institute pro-poor urbanization will require labour-intensive growth, supported by labour protection, flexible land use regulation and investments in basic services. Examples can be seen in many ancient cities; although with exploration came the collision of nations, which meant that many invaded cities took on the desired planned characteristics of their occupiers. Many ancient organic cities experienced redevelopment for military and economic purposes, new roads carved through the cities, and new parcels of land were cordoned off serving various planned purposes giving cities distinctive geometric designs. UN agencies prefer to see urban infrastructure installed before urbanization occurs. Landscape planners are responsible for landscape infrastructure public parks, sustainable urban drainage systems, greenways etc. Concepts of control of the urban expansion are considered in the American Institute of Planners. As population continues to grow and urbanize at unprecedented rates, new urbanism and smart growth techniques are implemented to create a transition into developing environmentally, economically, and socially sustainable cities. Mixed-use communities work to fight gentrification with affordable housing to promote social equity, decrease automobile dependency to lower use of fossil fuels, and promote a localized economy. By combining economic, environmental, and social sustainability, cities will become equitable, resilient, and more appealing than urban sprawl that overuses land, promotes automobile use, and segregates the population economically.