#### **RESEARCH REPORT | FELSTED SESSION 2023**

# **HEALTH ORGANISATION**



# Reluctance to address vaccination programs.





Munna K Ariyan



# TABLE OF CONTENT

#### MODEL UNITED NATION - FELSTED SCHOOL I SESSION 2023



**FORUM: Health Organisation Committee** 

ISSUE: Reluctance To Address Vaccination Programmes

STUDENT OFFICER: Munna K Ariyan



#### **Introduction**

The WHO listed vaccine hesitancy as one of the top 10 threats to global health in 2019. The reasons for vaccine hesitancy vary and are multifaceted, ranging from behavioural, social, and political factors. Caregivers, vaccine recipients, and frontline health workers must work together to increase the uptake of vaccinations to protect themselves and, in turn, protect their communities. Considering the significance of vaccine hesitancy, this report aims to acquire insights from various article and reports to determine how misleading information can lead to vaccine hesitancy, how social media plays a big role on vaccine hesitancy, what works to increase vaccine uptake and how we can apply this knowledge in a new conceptual model to increase the uptake of vaccines. The role of frontline health workers and the importance of interpersonal communication and counselling will also be explored. If and when the main causal factor to low vaccine uptake is access and availability, domestic and international partners must focus on supply chain issues.

However, if the issue is hesitancy regardless of access, one must examine the demand-related factors contributing to low vaccine uptake. The global situation around the COVID-19 vaccine provides a perfect example. In the US, vaccine hesitancy is driven by a lack of demand linked to personal beliefs, stereotypes, and socio-cultural factors. Yet, in much of the Global South, low vaccination rates are fuelled by the lack of access to adequate doses of the vaccine to protect entire populations. Individual decision-making regarding vaccination is complex and involves emotional, cultural, social, spiritual and political factors as much as cognitive factors. For example, when COVID-19 vaccines were in development, high-income countries began making deals with pharmaceutical companies for preorder. Over 80% of the COVID-19 vaccine developed by Pfizer was claimed by the United States, United Kingdom, European Union, and Japan. Even if the vaccine was made available to countries in the Global South (such as Latin America, India, Southeast Asia, and South Africa), there are still costs associated with maintenance, storage, transportation, and distribution.

There is broad agreement within the global scientific community that the most effective way to defeat the COVID 19 pandemic is through the mass vaccination of populations around the world. The development of vaccines for COVID 19 has been a powerful demonstration of how substantial public funding, intense focus, and unprecedented levels of scientific collaboration can help spur innovation to address global public needs in a very short time.



#### MODEL UNITED NATION - FELSTED SCHOOL I SESSION 2023



However, the approval and rollout of vaccines does not herald the immediate end of the health crisis, as attaining herd immunity will require the vaccination of a very substantial proportion of population and is therefore a major challenge. To succeed in the global effort to immunise billions of people as rapidly as possible, governments need to give priority to addressing issues of trust – trust both in vaccines, and in the institutions responsible for the vaccination endeavour. They need to promote confidence among the public in the effectiveness and safety of the vaccines, as well as in the capacity of governments to manage the logistical challenges competently.

Despite an initial "rally around the flag" effect seen early in the pandemic, many countries are observing increasing levels of distrust in government capacity to handle the crisis and implement coherent policies. This has resulted in declining compliance with public health-related rules and increasing scepticism about long-term economic recovery. More broadly, the pandemic has triggered widespread disinformation that has undermined both understanding and acceptance of science and public policy, and this extends to the issue of vaccine acceptance. Despite widespread recognition that COVID 19 is a critical issue to people all around the globe, many remain unwilling to be vaccinated. However, in February 2021, an average of 76% of the population across 11 OECD countries indicated willingness to be vaccinated, an increase from only 66% in December 2020. However, recent data from seven OECD countries showed that a quarter of the population in France, Germany and the United States may refuse COVID 19 vaccination, and an even higher proportion among younger population cohorts. More than 50% of French 25 to 34 year olds, and one third of Dutch 25 to 34 year olds, said they would probably or definitely not get vaccinated.

Not surprisingly, trust in the safety of vaccines has also been seriously tested by recent reports of rare, but serious, adverse events with a probable causal link to the Oxford/AstraZeneca vaccine. Both the safety signal, and the different responses of regulators around the world, are likely to have undermined public confidence. That said, there is also evidence to suggest that as more people are vaccinated, more will be inclined to accept vaccination. While this may to some degree indicate a gradual dissipation of initial fears about the safety of novel vaccines (recent events notwithstanding), it may also reflect that being vaccinated gradually becomes normative and is increasingly accepted as the path out of restriction and confinement.

Trust in vaccines must also be complemented by trust in the institutions responsible for vaccination. Lack of acceptance of vaccination may derive from previous failures of health systems and public institutions to serve certain population groups effectively and engender their trust. In general, trust in institutions is critical for the effective functioning of society and acceptance of public policy, and particularly so during a crisis. Trust is defined as one's belief that another person or institution will act in accordance with one's expectations of positive behaviour by others, and institutional trust is recognised as a key measure of government performance.





#### **Definitions Of Key Terms:**

Vaccine: - A vaccine is a product that produces immunity from a

disease.

Vaccination: - Is the action of giving the vaccine to someone.

*Immunisation:* - Is the process whereby a person becomes protected from a

disease. Immunisation can be caused by a vaccine or by a disease. Health authorities that work in this field are often

referred to as immunisation authorities or immunisation

programmes.

Vaccination services: - Refers to where, when, how and by whom vaccines are

given in a particular country, including factors such as cost,

accessibility, and convenience.

Vaccine hesitancy: - The reluctance or refusal to vaccinate despite the

availability of vaccines.

WHO: - World health Organisation

Misinformation: - False or inaccurate information, especially that which is

deliberately intended to deceive.

Disinformation: - False information, which is intended to mislead, especially

propaganda issued by a government organization to a rival

power or the media.

Herd immunity: - Protection from an infectious disease as a result of living in

a community where a large number of people are

vaccinated against that disease.

Coherent policies: - The systematic reduction of conflicting policy objectives,

activities and outcomes across government.

*MMR:* - Measles, mumps, and rubella combination vaccine.

#### **MODEL UNITED NATION – FELSTED SCHOOL I SESSION 2023**



HPV:

- Human papillomavirus (HPV) is the name of a very common group of viruses.

OECD:

- The Organization for Economic Co-operation and Development (OECD) is a unique forum where the governments of 37 democracies with market-based economies collaborate to develop policy standards to promote sustainable economic growth.

Autism:

- Autism spectrum disorder (ASD) is a developmental disability caused by differences in the brain.

hepatitis B:

- Is a vaccine-preventable liver infection caused by the hepatitis B virus (HBV).

Dengvaxia:

- A vaccine used to help protect against dengue disease.

Thimerosal:

- Is an organomercury compound. It is a well-established antiseptic and antifungal agent.

The Gavi COVAX:
AMC:

 Is the innovative financing instrument that will support the participation of 92 low- and middle-income economies in the COVAX Facility – enabling access to donor-funded doses of safe and effective COVID-19 vaccines.

Social cohesion:

- Refers to the extent to which people in society are bound together and integrated and share common values.

Political polarization:

- The act of dividing something, especially something that contains different people or opinions, into two completely opposing groups.

Libertarian views:

 Libertarianism is a kind of politics that says the government should have less control over people's lives. It is based on the idea of maximum liberty. Libertarians believe that it is usually better to give people more free choice.



#### **Background Information**

Vaccine hesitancy is not a new issue, but it has escalated in scope and scale. The high degree of vaccine questioning and reluctance to accept vaccination is amplified by social media platforms. In addition, the introduction of new vaccines and combinations of vaccines prompts new questions and consequent searching for information in a landscape of confusing misinformation and disinformation alongside accurate, scientifically based information.

Some of these changes are due to contextual factors, including a wider decline in trust of expertise and authority, and different modes of belief-based extremism. Political polarization, as well as libertarian views and alternative health care advocacy, triggers public questioning about the importance, safety, and effectiveness of vaccines. In addition, the hyperconnected digital landscape offers a new opportunity for people with shared beliefs to self-organize across geographic regions, influencing and sometimes disrupting public confidence and cooperation.

#### MMR, HPV, and Covid-19 Vaccine Hesitancy

Although many observers point to the 1998 Lancet article by Wakefield et al. (retracted in 2010) as the source of parental fears that MMR vaccination might cause autism, the search for what could be causing the seeming increase in autism was already brewing. In the United States, however, anxieties were more focused on thimerosal in vaccines as a possible cause of autism. The attention to thimerosal emerged in the context of a larger global movement that highlighted concern about mercury in food and drugs and in the environment. In 1999, as part of a review of mercury-related ingredients in all food and drugs, the Food and Drug Administration called for an assessment of thimerosal in childhood vaccines, although the small amount of thimerosal used in vaccines contains only a minute amount of ethyl mercury and does not contain any methylmercury (the more dangerous type of mercury), which was the prime focus of the larger review. The U.S. Public Health Service and the American Academy of Paediatrics followed with a recommendation to remove thimerosal from childhood vaccines as a precautionary measure. Even though the recommendation was precautionary, with no evidence of harm, it reinforced public concern and prompted an initial 38% decrease in the hospitals that offered hepatitis B vaccination with thimerosal-containing vaccines for infants.

#### MODEL UNITED NATION - FELSTED SCHOOL | SESSION 2023



To address the growing concerns, the Institute of Medicine conducted a major review of studies investigating links between vaccines and autism and concluded that neither MMR vaccines (which do not contain thimerosal) nor thimerosal-containing vaccines could cause autism. Meanwhile, some attention was shifted to the possibility that the increased number of vaccines given to children could be a cause of autism, a concern that is also not supported by any evidence. Nonetheless, the parental concerns have persisted. One study showed 70 additional MMR vaccine-related injury claims per month in the United States after publication of the report by Wakefield et al. Other research pointed to the effect of concern about a link between the MMR vaccine and autism on vaccine hesitancy in Somali immigrant communities in Norway and the United States.

In 2012, a court ruling in Italy granted compensation for vaccine-related injury on the basis of the report by Wakefield and colleagues, which further amplified public anxiety. Having lost his credentials as a general practitioner in the United Kingdom, Wakefield became an activist, appealing to concerned parents and reinforcing their vaccine anxieties, alongside environmental lawyer turned vaccine critic Robert F. Kennedy, Jr., whose previous work on the toxic effects of mercury in the environment provided fertile ground for his campaign against thimerosal and vaccine safety risks more broadly. The launch of Google in 1998, followed by a cascade of new Internet-based and social media technologies, allowed widespread access to information, as well as misinformation, and fuelled the viral spread of questioning about vaccines.

A study in Italy investigated YouTube video content between 2007 and 2017 that focused on the suspected link between the MMR vaccine and autism. In addition to an escalation in the amount of negative content over the 10-year study period, partly reflecting the growth of YouTube after its 2005 launch, the study showed that negative videos about the MMR vaccine outnumbered positive ones by a factor of 3, with the negative videos more widely viewed. Another Italian study of vaccine-related content on YouTube had similar findings. A number of studies investigating HPV vaccine content on YouTube also showed that negative videos attracted a larger following than positive ones.

Concern about one vaccine can also prompt questioning and hesitancy regarding other vaccines, such as the reported risks associated with a dengue vaccine (Dengvaxia) in the Philippines that contributed to a drop in measles vaccination and an HPV vaccine scare in Denmark that triggered a decline in MMR vaccine uptake. After HPV vaccine uptake declined (from 95% to just over 30%) after negative media reports, two-dose MMR vaccine coverage also dropped, from 86% to 80% among girls and from 85% to 79% among boys.



#### **MODEL UNITED NATION – FELSTED SCHOOL I SESSION 2023**



The negative media reports that sparked HPV vaccine hesitancy and refusal in Denmark were part of a global trail of episodes of reported symptoms after HPV vaccination, from dizziness to fainting and fatigue, which the WHO now characterizes as "Immunization Stress-Related Responses." One episode occurred in Japan in 2013, with related events in 2014 sparking HPV vaccine hesitancy in Denmark, Ireland, and Colombia.

The reactions in Japan provoked a Twitter-enabled anti-HPV vaccine movement led by mothers of the affected girls, prompting the government to suspend its active recommendation of the HPV vaccine in 2013. The suspension lasted for nearly 9 years, with re-enactment of the active recommendation in April 2022. The story of Japan's sustained suspension travelled around the world through news outlets and social media, prompting a viral global spread of HPV vaccine hesitancy. In a 2020 modelling study, the missed opportunities and hesitancy regarding vaccination between 2013 and 2019 were predicted to result in more than 25,000 cases of preventable cervical cancer and between 5000 and 5700 deaths from cervical cancer. The role of social media in fuelling the spread of vaccine hesitancy and its increasingly documented health consequences cannot be overstated, and vaccine hesitancy has escalated over the past decade, reaching new levels in the context of the Covid-19 pandemic. At the 2020 Munich Security Conference, WHO Director-General Tedros Adhanom Ghebreyesus called attention to the fact that alongside efforts to control the spread of Covid-19, we were faced with a challenging "infodemic" to

control.

Given the dramatic changes. in the communication landscape that fuels the rapid spread of vaccine information alongside misinformation, new methodologies are needed to monitor emerging vaccine concerns over time and place in

Perceived risks of vaccine-preventable diseases are low; vaccination is not deemed a necessary preventative action.

Other life/health responsibilities seen as more important at that point in time.

Extent to which physical availability, affordability, willingness-to-pay, geographical accessibility, ability to understand (language and health literacy) and appeal of immunisation services affects uptake.

Trust in vaccines, in the system that delivers them, and in the policy makers who decide which vaccines are needed and when.

order to better inform appropriate responses. Mapping vaccine hesitancy at a local level is one important step toward addressing it, along with other needed interventions at the individual and community levels.



#### Factors involved in vaccine hesitancy.

#### Reasons for vaccine hesitancy

- One Concerns about vaccine safety, adverse effects, toxicity, or poor quality of vaccine components.
- Previous experiences with vaccines and interactions with healthcare providers.
- Mistrust of doctors, health authorities, government sources, pharmaceutical companies and scientific research, and doubts about the technology used to produce the vaccine.
- Perceptions of low risk of contracting illness, low illness severity and low vaccine efficacy.
- Lack of information, information sources and influence of antivaccine proponents.
- Religious beliefs.
- Desire for a 'natural' and 'organic' lifestyle.
- How a person's peer group perceives vaccines.
- Belief in a person's right to make their own healthcare decisions.
- Fear of needles.
- Inconvenience.
- Vaccine cost.

# waccine health some dicine production and the source of th

### Additional concerns relating to COVID 19-vaccines

- The novelty of the vaccines; mRNA- and adenovirus-based vaccines are relatively new types of vaccines, compared with most vaccines that are currently available.
- Mistrust of vaccine benefit.
- Speed of vaccine development.
- Worry about unforeseen future negative effects.
- Concerns about commercial profiteering by pharmaceutical companies.
- Preference for natural immunity.
- Location of vaccine development.



in all vaccines is trust."

Barry Bloom, Harvard T.H. Chan School of Public Health





#### **Relevant UN Treaties, Resolutions And Reports.**

UN rights chief leads call for global COVID-19 vaccine equity.

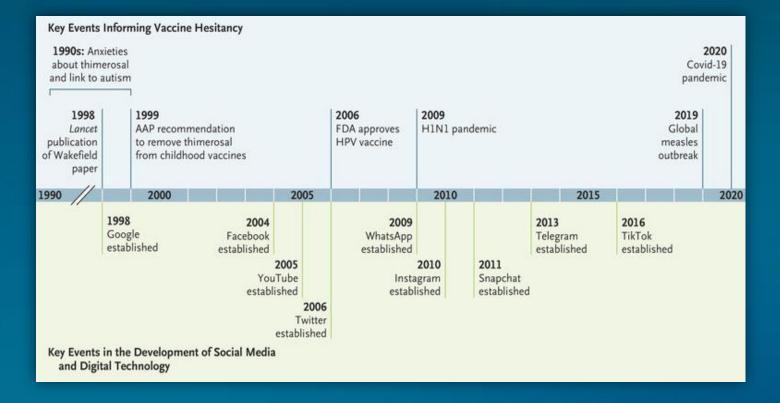


https://news.un.org/en/story/2022/03/1113672

Vaccine hesitancy has implications for us all.

The fewer the people who are vaccinated,
the greater the number of people who will
get seriously ill.

#### **Timeline Of Key events**





#### **Stakeholders**

## World leaders unite to commit to global equitable access for COVID-19 vaccines.

- The reactions in Japan The Gavi COVAX AMC Summit "One World Protected" virtual event, hosted today by the Government of Japan and Gavi, the Vaccine Alliance, raised US\$ 2.4 billion from nearly 40 donor governments, the private sector, and foundations, exceeding the funding target and bringing the total pledged to the COVAX AMC to US\$ 9.6 billion to date.
- Japan demonstrated its commitment to ending the acute phase of the pandemic by pledging US\$ 800 million at the Summit, making their total contribution to the COVAX AMC US\$ 1 billion.
- Their leadership made way for other donors to help COVAX fulfil its financial ask. The funds raised will enable Gavi to secure 1.8 billion doses of COVID-19 vaccines for lower-income countries participating in the COVAX Facility.
- The vaccines, to be delivered in 2021 and early 2022, will enable COVAX to protect almost 30% of the population in 91 AMC economies.



- In addition, five countries made new commitments to donate more than 54 million vaccine doses to lower-income countries, including through COVAX, to bridge short-term supply challenges. This brings the total number of doses shared to more than 132 million.
- José Manuel Barroso, Chair, Gavi Board "Thanks to all our donors, we can now protect not only health care workers, the elderly and other vulnerable people but broader sections of the population, increasing our chances further of bringing the pandemic under control."

Vaccination: Council calls for combatting vaccine hesitancy and closer EU cooperation



https://www.consilium.europa.eu/en/press/pressreleases/2022/12/09/vaccination-council-calls-forcombatting-vaccine-hesitancy-and-closer-eu-cooperation

#### UN COVID-19 Vaccine Hesitancy Survey



https://www.unicef.org/easterncaribbean/media/2996/file/COVID%20vaccine%20hesitancy%20rep.pdf





#### **Possible Solution**

#### Creating messages that convey more than just information

Humans are not perfect information processors. Thus, messaging is not about conveying information. It is just as much about eliciting emotions, creating trust, ensuring a genuine understanding of the issue in question, and making sure that the right people notice and remember the essence and react according to it.

#### **Building trust**

Research on crises and crisis communication points to one key concept above all: trust. If trust in health authorities and health workers is damaged, it may lead to long-term decline in vaccine uptake, possibly resulting in disease outbreaks. Trust is a sensitive good: it is hard to gain and easy to lose. Research shows that once trust is lost, risk communication becomes ineffective, and trust is difficult to re-establish. The aim, therefore, is to build and maintain trust continuously, in routine as well as crisis communication.

#### **Determinants of trust**

Research shows that the key determinants of trust are how people perceive the following:

- Competence: people need to feel that authorities and spokespeople possess knowledge and expertise.
- Objectivity: people need to feel that the information provided, and the actions taken are not influenced by stakeholders with an agenda.
- Fairness: people need to feel that all relevant opinions were included.
- Consistency: people need to feel that messages and actions are predictable and aligned.
- Sincerity: people need to feel that authorities and spokespeople are transparent, honest, and open showing transparency or empathy through actions here is more important than declaring it.
- Faith: people need to feel that authorities and spokespeople possess empathy, listen to them and understand them and sincerely want the best for them.





#### Preference for easy information

Psychological research shows that the human mind is more trustful, positive, and receptive when it receives information that repeats something it has heard before, and when the message is clear and simple in format and language.

- using clear, understandable, and non-technical language.
- demonstrating an ability to listen to people's concerns, taking these seriously and responding to them.
- regularly providing and repeating information, even when there is nothing new to say, never answering, "No comment" instead repeating the same messages, being confident about expressing any possible uncertainties while sharing information about the steps taken).

#### WHO guidance on building trust and responding to crises.

With the insights gained from this presentation of the factors that affect decision-making about vaccination, vaccine hesitancy and vaccine safety scares, and about vaccine crises and how communication activities may mitigate them, WHO recommends that Member States should:

- Work long-term to build population resilience against vaccine rumours and scares through ongoing activities.
- Build a strong programme that is well prepared to respond to any event that may erode confidence.
- Respond immediately to any event which may erode trust in vaccination and health authorities with appropriate actions based on an assessment of the situation.

Together, these actions may prevent a situation from escalating into a crisis or minimize the damaging effects of a crisis.





#### **Final Note**

While the development of COVID-19 vaccines has been an extraordinary success, vaccinating most of the global population is an enormous challenge, one for which gaining – and maintaining – public trust in COVID-19 vaccines and vaccination will be as essential as the effectiveness of the vaccines themselves. Moreover, the experience with COVID-19 will likely shape confidence in other vaccines making it even more important to build confidence at this time.

Trust in vaccination, and in the ability of governments to communicate, and to successfully deliver a vaccination programme, is critically dependent on:

- the extent to which the government can instil and maintain public confidence in the
  effectiveness and safety of the vaccines;
- the competence and reliability of the institutions that deliver them.
- the principles and processes that guide government decisions and actions in vaccine procurement, distribution, prioritisation, and administration;
- the capacity and effectiveness of regulatory agencies in handling issues and communicating
  consistently as events arise, while retaining public confidence in their review processes;
   and
- the effectiveness of the public engagement and communications that accompany these.

Given the speed at which COVID-19 vaccine development has taken place it is important for governments to emphasise that no developmental or regulatory corners were cut in the process, as:

- development was facilitated by extensive prior research, unprecedented levels of international collaboration among researchers, and massive public investment in R&D and manufacturing capacity; and
- approval processes were accelerated, in part through procedures that allow the acceptance
  of more preliminary evidence in circumstances of public emergency; and with COVID-19
  products accorded the highest priority by regulators.



#### MODEL UNITED NATION – FELSTED SCHOOL I SESSION 2023



Successful vaccination campaigns also require governments to partner and support community organisations to conduct extensive and well-managed community engagement. A thorough understanding is needed of different populations' specific concerns, prior experiences both with vaccination and the health system in general, religious and/or political affiliations, and socio-economic status. It is also important to ensure that government actions are open to public scrutiny, and that public institutions engage with the population, by:

- Proactively releasing timely information on vaccination strategies, modalities and accomplishments in disaggregated, user-friendly and open source formats.
- Enhancing transparent and coherent public communication to address misinformation and the "infodemic"; and
- Engaging the public when developing vaccination strategies, and in the form and content of key communications.

Finally, fairness is a hallmark of human behaviour that underpins social cohesion and trust. Governments must therefore manage public expectations and explain why it is fair that particular population groups within a country are prioritised for vaccination.

#### **APPENDICES**

Vaccine Hesitancy: A Story as Old as Vaccines Themselves.

Lancet retracts 12-year-old article linking autism to MMR vaccines. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2831678/

COVAX: The Vaccines Pillar Of The Access To Covid-19 Tools Accelerator Structure And Principles

https://www.gavi.org/sites/default/files/covid/covax/COVAX-Structure-and-Principles 2022.pdf

#### **Progress Towards Global Immunization Goals**

https://www.who.int/docs/default-source/documents/immunization/data/progress-towards-globalimmunization-goals-2018.pdf?sfvrsn=aa30c225\_2





#### <u>Bibliography</u>

https://www.euro.who.int/\_\_data/assets/pdf\_file/0004/329647/Vaccines-and-trust.PDF

https://gh.bmj.com/content/5/10/e004206

https://www.nature.com/articles/s41591-021-01459-7

https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31558-0/fulltext

https://www.unicef.org/immunization

https://www.un.org/en/coronavirus/vaccination

https://journals.sagepub.com/doi/full/10.1177/01410768211018951

https://www.gavi.org/news/media-room/world-leaders-unite-commit-global-equitable-access-covid-19-vaccines

https://pubmed.ncbi.nlm.nih.gov/34490416/

https://www.ipsos.com/sites/default/files/ct/news/documents/2021-05/COVID-19-Vaccination%20Intent%20-April-2021-report.pdf

https://www.who.int/docs/default-source/documents/immunization/data/progress-towards-global-immunization-goals-2018.pdf?sfvrsn=aa30c225\_2

https://www.who.int/news-room/spotlight/ten-threats-to-global-health-in-2019

https://www.tandfonline.com/doi/full/10.4161/hv.24657

https://www.rappler.com/newsbreak/in-depth/217912-dengvaxia-one-year-after-outbreaks-series-part-1/

https://www.who.int/health-topics/vaccines-and-immunization#tab=tab\_2

 $\underline{https://health\text{-}study.joinzoe.com/post/how-covid-vaccine\text{-}so-fast}$ 

https://www.mdpi.com/2076-393X/10/1/80

