Impact of New-age Gateway Devices on Children

Why in news?

Recently Australia has passed the world-first bill that bans all vapes from general retail later this year.

What are the New-age gateway devices?

- **New Age gateway devices** - These are devices that were introduced and marketed as a healthier alternative to smoking that would make it easier to quit tobacco.
- **Forms** – Some of the tobacco product used to describe electronic nicotine delivery systems (ENDS) are
    - Vapes, vaporizers, vape pens, hookah pens, electronic cigarettes (e-cigarettes or e-cigs), e-cigars, e-pipes, Heat-not-burn (HNB) devices & other heated tobacco products (HTPs) are
- These are highly engineered drug delivery devices.
- Following a puff, the aerosol is delivered to the user's mouth and lungs and the rest is exhaled.
- The e-liquid contains a range of ingredients such as propylene glycol, nicotine and flavourings.

To know more about e-cigarette, click here

What are the impacts of new-age gateway devices in children?

- **Affect development of children** - These new-age gateway devices led to a *surge in youth vaping, creating a new pandemic*.
    - According to the Centers for Disease Control and Prevention, in 2023, e-cigarettes were most commonly used product among middle and high school students in United States.
- **Health Issues** – Continued use of these devices, poses irreversible health risks like *lung damage* and the *e-cigarette or vaping use-associated lung injury* (EVALI).
- **Mental health issues** – It leads to mental health challenges such as *depressive symptoms, anxiety, perceived stress,* and suicide-related behaviours among adolescents.
- **Social Issues** - Those who vape are more likely to experience feelings of *loneliness and social isolation* when compared to their peers who abstain from these.
- **Addiction** – E-cigarettes are highly addictive, particularly for individuals up to around the age of 25.
- Benzoic acid in nicotine e-liquid produces *protonated nicotine which enhances the addictive potential*.
- **Cyclical effect** – This is a developmental stage which makes them especially

vulnerable to structural and chemical changes induced by nicotine addiction.
- Once addiction takes root, it can increase the likelihood of developing other substance use disorders later in life.
- **E-Waste** - There are no practical means to collect or recycle vapes.
- **Environmental Issues** – volatile organic compounds, heavy metals, such as *nickel, tin and lead have toxic effects* on the environment – land, air, water.

Why children's are highly susceptible to addiction?

- The age group most at risk remains between 10 and 20 years old, a demographic that manufacturers allegedly exploit through appealing advertising and enticing vaping flavours.
- **Targeted advertisements** – The *colourful imagery* created by these new-age gateway devices suggests that these products will bring happiness and elevate one's social status.
- It is marketed with addition of flavours such as strawberry, cotton candy, pop rocks, and lemonade.
- **Technology Addiction** – Excessive technology usage is driving some children towards these addictive devices.
- **Peer influence** – *Friends' positive attitudes* towards vaping is the major introductory factor.
- Children often *prioritise peer preferences* over their own, leading them to embrace it.
- **Lack of Awareness** - Many children, teenagers, and even parents mistakenly believe that vaping only involves harmless water vapour and pleasant flavours.

How India regulates new-age smoking alternatives?

- Indian had passed Prohibition of Electronic Cigarettes (Production, Manufacture, Import, Export, Transport, Sale, Distribution, Storage and Advertisement) Act in 2019.
- **Ban** – It *prohibits the production, trade, storage, and advertisement* of electronic cigarettes in India.
- **Punishments -** Any person stores any stock of e-cigarettes, will be punishable with an *imprisonment* of up to six months, or a *fine* of up to Rs 50,000 or both.
- Any person who contravenes other restrictive provision will be punishable with imprisonment of up to one year, or a fine of up to one lakh rupees, or both.

What lies ahead?

- Comprehensively ban all the all forms of new age gateway devices such as Hookah, vapes.
- Stop the promotion of ENDS as the alternatives to conventional tobacco products.
- Create awareness among people about the negative impacts of all forms of new age gateway devices.
- Strengthen the surveillance and enforcement capacity for effective enforcement of the ban.

References

1. The Hindu | New-age gateway devices, the latest health threat
2. The Hindu | How do vapes work

