You've probably heard them before, those (good) tips to prevent having your identity stolen: Shred documents containing credit card numbers and don't give your social security number to anyone over the phone, for starters. But few consumers are aware of how to protect themselves against a growing and disturbing trend: medical identity theft.

Medical identity theft is the fraudulent use of another person's medical identity in order to obtain medical services and medications or to bill a third-party payor such as an insurance company or Medicare. Thieves may steal a social security, health system ID, driver's license, or health insurance policy number as well as other personal information in order to pose as someone else.

The crime can have long-lasting and dangerous effects, both on your health and your finances. The thief may obtain health services in your name or bill fraudulently for services that, although you never received them, could max out your annual or lifetime insurance limits. Whether the thief is actually receiving medical treatment or just billing for fictitious treatments in your name, incorrect information—about blood type, diagnoses, or drug allergies, for instance—may infiltrate your medical records as a result. Unpaid bills listing you as the patient may be sent to debt collection agencies and reported under your social security number to credit bureaus, affecting your credit history.

A recent survey done by the Ponemon Institute, a consultancy that conducts privacy and data security research, estimates that about 1.85 million people will be affected in 2012, up from 1.49 million in 2011. The incidence is indeed growing—at a rate of between 3 and 7 percent annually, says Pam Dixon, executive director of the World Privacy Forum (WPF), a nonprofit that conducts research and consumer education on privacy. “And there's a striking pattern in terms of geography,” she says: Although the crime occurs throughout the country, medical identity theft tends to be more prevalent in areas such as Los Angeles, Phoenix, South Florida, and New York. The patterns correspond to an aging population and the presence of Medicare and Medicaid processing centers, according to Dixon. “When you get more health care, you're more prone to be a victim of medical identity theft,” she says.

That said, anyone can have their medical identity stolen, whether you have private insurance, Medicare, or Medicaid. “Medical identity theft is a large national fraud trend that can bite almost anyone who's not alert to the possible schemes,” says James Quiggle, director of communications for the Coalition Against Insurance Fraud.

Perpetrators may belong to organized crime rings; others are individuals who need medical treatment and steal identities to avoid paying for care, says Quiggle, adding that it's common for the thief to know the victim. The crime can skirt detection for a long time. “People often find out years after the fact—two, five, even 10 years after,” says WPF's Dixon.

According to the recent Ponemon Institute survey, collection (dunning) letters—for an unfamiliar doctor visit or procedure, perhaps—are the most common clues to victims of the crime. Mistakes in medical records such as the wrong blood type or diagnosis and suspicious entries on statements or invoices also are common.