

Iraq - What happens next?



In this April 13 photo, people flee their homes during a fight between Iraqi security forces and Islamic State group

By Erika Solomon

When they returned to their battered city of Tikrit last year, local volunteers tried to scrub away every trace of Isis rule. They cleared charred rubble from the streets and, in an act of exorcism, even filmed themselves in the places where the militant group once staged public beheadings, to prove to others it was safe.

Some remnants of Isis's 10-month rule, however, have been harder to expunge. Omar, a volunteer who asks to remain anonymous, recalls that efforts by Tikrit residents to connect to the Iraqi government's electricity grid were so unsuccessful that they reverted to a localised power system improvised while the jihadi force was in charge.

"The local system that people rigged under Isis still works better than our government's," he laughs - but beneath the joke lies an uncomfortable truth.

Recapturing territory from

Isis, which at one stage controlled a third of Iraq, has been an enormous challenge. Cities like Tikrit show that rehabilitating these areas may be an even greater test.

The US-led coalition and Iraqi government have spent

Iraq is facing a looming economic crisis with a displaced population of 3.3 million people and renewed sectarian bloodshed

billions on defeating Isis and they have been winning, with 40 per cent of the territory the jihadi group once held back in government hands. Less effort has been put into planning the reconstruction of a country that the jihadi force has torn apart. The Pentagon says it has spent USD6.5bn since 2014 on the military effort to force Isis out of Iraq. In

contrast, it has spent just \$15m on "stabilisation" support - highlighting the risk that once again, western powers could win the war but neglect the aftermath.

Iraq is facing a looming economic crisis, with a dis-

placed population of 3.3m people (according to the UN) and renewed sectarian bloodshed which could fuel the very resentments that helped Isis seize control of Sunni majority areas. Such problems could turn military victories into practical defeats.

One year on from its "liberation", Tikrit is lauded as a success story of post-Isis

rule. For Tikritis like Omar, there are reasons to celebrate: up to 90 per cent of the 160,000 people who fled the city have returned. They are re-creating basic infrastructure. Revenge killings are rare.

But for US-led coalition forces and the government, the irony of falling back on Isis-era infrastructure highlights the challenges Iraq is still failing to meet.

"The government needs to convince people that things will be better," says Zaid al-Ali, author of *The Struggle for Iraq's Future*. "If they maintain the same systems then all this effort is purposeless and Isis, or some newer version of it, will come back."

The birthplace of Saddam Hussein and the capital of Salahuddin province, Tikrit was among the first cities to fall to Isis in its whirlwind offensive in summer 2014, and one of the first to be freed, in April the following year. Rows of blown-up houses and dirt berms that

criss-cross the city are a reminder that every inch of this land was hard won - and how long it will take to rebuild.

Falling crude revenues have put oil-rich Iraq on the verge of financial collapse.

Officials say they need between \$6bn and \$10bn in loans just to cover the budget for the year. The central government has yet to fund any reconstruction projects in the country. Instead the bill has been picked up by the UN, humanitarian groups and locals.

At the University of Tikrit, professors like Awatif Jassim come on weekends to inspect bullet-scarred classrooms. They have 20,000 students back in class, but little equipment to teach them with.

"My college was completely looted - computers, machines, even the desks. We'd need IQD45bn [about \$4m] to rebuild," says Ms Jassim, a dean of science. "For now, we do what we can."

Down the road, local vol-

unteers hand out food to impoverished families displaced from other Sunni villages, taking shelter in Tikrit's bombed-out houses.

"Tikrit has had success, but it is the people who brought this city back to life," says resident Yusra Saidi, a schoolteacher. "Our government has nothing to do with it."

Aid workers worry that it will be difficult, if not impossible, for some of the displaced, who are largely Sunni, to reintegrate amid the destruction and suspicion wrought by the war. Once all-powerful under Saddam, the Sunni have been marginalized by a government dominated by the Shia majority. Their frustration was one reason that Isis - with former supporters of the deposed ruler in its ranks - was able to take root.

The UN has spent \$8m helping Tikritis rebuild basic infrastructure but it says the full cost of the destruction is incalculable. Some parliamentarians say small-

Iraq - What happens next? (continued)

er towns near Tikrit could cost up to \$10bn each to repair. This worries those looking ahead to the recapture of Mosul, the country's second city and the main Isis stronghold, which the coalition wants to reclaim by the end of the year. It is expected to be the group's last stand in Iraq.

"We're saying to the coalition guys - can you not destroy entire towns please?" one humanitarian official says privately. "One, we have no idea how long it will take to repair this, or who's going to pay. Two... you have lots of very frustrated Sunni."

More than reconstruction, the psychological scars and sectarian tension that Isis has ripped open may be more difficult to heal. Iraqis know some of their Sunni countrymen, even neighbours, joined or at least tolerated Isis when it blitzed across parts of Iraq. That is making it hard to convince many Shia leaders, foreign diplomats say, to prioritise the rehabilitation of Sunni areas.

If Tikrit is on a shaky path to progress, places like Muqdadiya, in north-eastern Diyala province, look frozen in time.

At the al-Quds mosque, commander Ahmad al-Tamimi and some of his fighters pick their way through the mangled furniture and melted mounds of flesh stuck on the floor. In February, an Isis suicide bomber blew himself up among Shia worshippers, killing 40. Two months lat-



Iraq's elite counterterrorism forces fire towards extremist positions during fights between Iraqi security forces and Islamic State group during a military operation to regain control of Hit, 140 kilometers west of Baghdad

er, local Shia officials and the paramilitary Shia forces, known as the Hashd al-Shaabi, or Popular Mobilisation units, are still refusing to clean up the macabre tableau.

"All of the blood lost in this mosque is Shia. We paid in blood to liberate our Sunni brothers. Yet we are accused of being blood-thirsty," says Mr Tamimi, a commander in the Hashd 24th division. It is close to the powerful Badr organisation, a Shia group that Sunni

MPs argue has more control over the province than the government. The sensitive region borders both Baghdad and the regional Shia power, Iran. Mr Tamimi says the refusal to clean up al-Quds is a protest at the lack of security in Diyala, whose territories were liberated from Isis even earlier than Tikrit.

Many Sunni are wary of security efforts dominated by the Shia group, accusing it of being involved in kidnapping and murder. Abdelsalam al-Jubouri, a Sunni parlia-

Expelling Isis is unlikely to be enough to bring back stability without addressing sectarian tension

mentarian from Diyala, says many Sunni politicians are too scared to leave Baghdad to visit his province. He blames the Hashd. "We receive outright threats... and people call all the time

reporting kidnappings," he says. "The Hashd uses them for ransom money."

Diyala shows that expelling Isis is unlikely to be enough to bring back stability without addressing sec-

tionary tension. Shia residents fear bombings. Their Sunni counterparts fear retribution - not only from Shia gunmen but Isis infiltrators who see them as traitors. After the attack on al-Quds, residents said, nine Sunni mosques in the area were firebombed.

Umm Hadi, who asked not to use her full name, is repairing the torched walls of her home in a Sunni district, but she is prepared to leave at a moment's notice if the family is forced to flee again: "I keep bags packed and ready."

The anxiety and distrust is shared with many Shia fearful of what happens if they reabsorb displaced Sunnis. Diyala has a brutal legacy of sectarian bloodshed. On a drive through the countryside, Mr Tamimi points to villages his men fought to recapture from Isis: the same places he fought al-Qaeda in 2004.

"Isis uses weak minds - especially people from the countryside," he says during a drive to the village of Adhaym. It took the Hashd a year before it agreed to let Adhaym residents return, he says. Security officials let in about 500 families, which locals say is still only a third of the town. The miles of agricultural fields between Adhaym and Muqdadiya are verdant, but empty. Most villages look like ghost towns.

Despite the tension, the urge to go home is palpable across Iraq - even when there is no home to return to. In Adhaym, Umm Maher lives next to a pile of rubble that was once her home. At night, she sleeps in a plastic caravan trailer with her husband and five children, which they have parked next to the ruins. By day, she digs through the rubble, looking for bits of material they can salvage in the hope that some day they can afford to rebuild.

"For a year, we just dreamt of coming home," she says. "Now I spend my days picking through bricks."

Sunni parliamentarians like Adnan Janabi, of Babel province, are urging the government to do more to help people return to areas once under Isis control. He says Iraq needs to take a risk.

"We should be courageous enough to trust these people," he says. "[If we don't] we will end up pushing them to sympathise with [Isis] instead of fighting it - unless they feel that we are their government, and they are our people."

Sectarian fear

Before Tikritis were allowed to return, many feared there would be a wave of sectarian killings to avenge the Isis massacre of hundreds of Shia soldiers in a former Saddam palace near the Tigris river. It is now virtually a shrine, and Shia militiamen pray at a makeshift mosque just next to the concrete block where Isis filmed its gunmen shooting the soldiers and dumping their bodies into the river.

"Tikrit is a pretty remarkable success story by those standards. Everyone had these doomsday scenarios, and none of it happened," says Mr Ali, the author, who is from the city. However, he warns, Tikrit is not a good barometer for other parts of Iraq. The population is politically and economically well-connected to the capital compared with other Sunni areas. Yet even here, signs of future troubles linger below the surface.

The Hashd works mostly at the

main checkpoint outside Tikrit. Shia religious banners hang along the outskirts of town, and locals like Omar are still painting over the graffiti that Hashd fighters scrawled on city buildings.

On the city's edge, hundreds of families have been detained in food storage facilities, residents say. They are Tikriti families displaced by the fight against Isis in nearby towns. They wait days, or even weeks, for the Hashd and local officials to give them security clearance to enter their own provincial capital.

"It's completely wrong - these are human beings," says one volunteer, who asks not to be named. "But no one here [in Tikrit] will complain. They are too grateful their own areas were liberated - that they got to go home."

With stamped certificates and "sponsorship" papers, crowds of Iraqis queue chaotically at checkpoints. They want to head to regional centres like Tikrit, or

the capital Baghdad.

The once-simple movements across provincial lines, however, are beginning to feel like border crossings between countries for displaced residents who hail from nearby Sunni Muslim areas captured by Isis.

"I'm an immigrant in my own country," says Ahmed Hajiri, who fled his Isis-controlled home town of Fallujah, in Anbar province, and needs a relative to sponsor him so he can move to the capital. "I don't have a country any more."

The government is worried about a rise in attacks such as suicide bombings as the jihadi forces lose territory. They fear Isis infiltrators among the population, but the heavy regulations disproportionately affect the Sunni minority that Iraq's Shia-dominated government needs to win over.

"They could have a new Sunni insurgency in a couple years

if they don't deal with this," one western diplomat says. "Many Shia leaders feel these people supported

Isis, or at least didn't turn on it. So why should they help them?" Many recaptured towns and cities have committees that determine who can return home and who cannot. They are usually controlled by security forces and local officials who may have grudges against families whose sons or relatives joined Isis.

Dhiaa al-Dhoury says 200 men were arrested when they tried to return to his town of al-Dour, near Tikrit. Farmers, shepherds and tribal sheikhs - all are still missing. Many had sons or relatives who joined Isis, he says, but he insists they were innocent of Isis sympathies.

"We will destroy our social fabric," he says. "When we insist they have no way to rejoin us, we are telling them: go to Isis. Where else can they go?"

By Monami Yui, Yuji Nakamura and Gwen Ackerman

Japanese Pinball maker tied to iPhone hack set for terror fight

THE hackers at Cellebrite Mobile Synchronization Ltd., the forensics unit of a little-known Japanese pinball company, are fast becoming the go-to guys when law enforcement needs to unlock smartphones. Its group chief has plans to keep the firm on the frontlines against terrorism.

In his first interview since Sun Corp. was thrust into the spotlight in the legal tussle between Apple Inc. and U.S. law enforcement over the hacking of an iPhone, Chief Executive Officer Masanori Yamaguchi says his company wants to expand its work countering tech-savvy terrorists. Yamaguchi says he's willing to spend as much as 20 billion yen (USD183 million) to acquire or merge with companies to expand its sought-after data extraction business.

"Demand will never go away," Yamaguchi, 67, said from the company's headquarters in Aichi prefecture southwest of Tokyo. "Extracting mobile phone data is the fastest way to solve crimes nowadays."

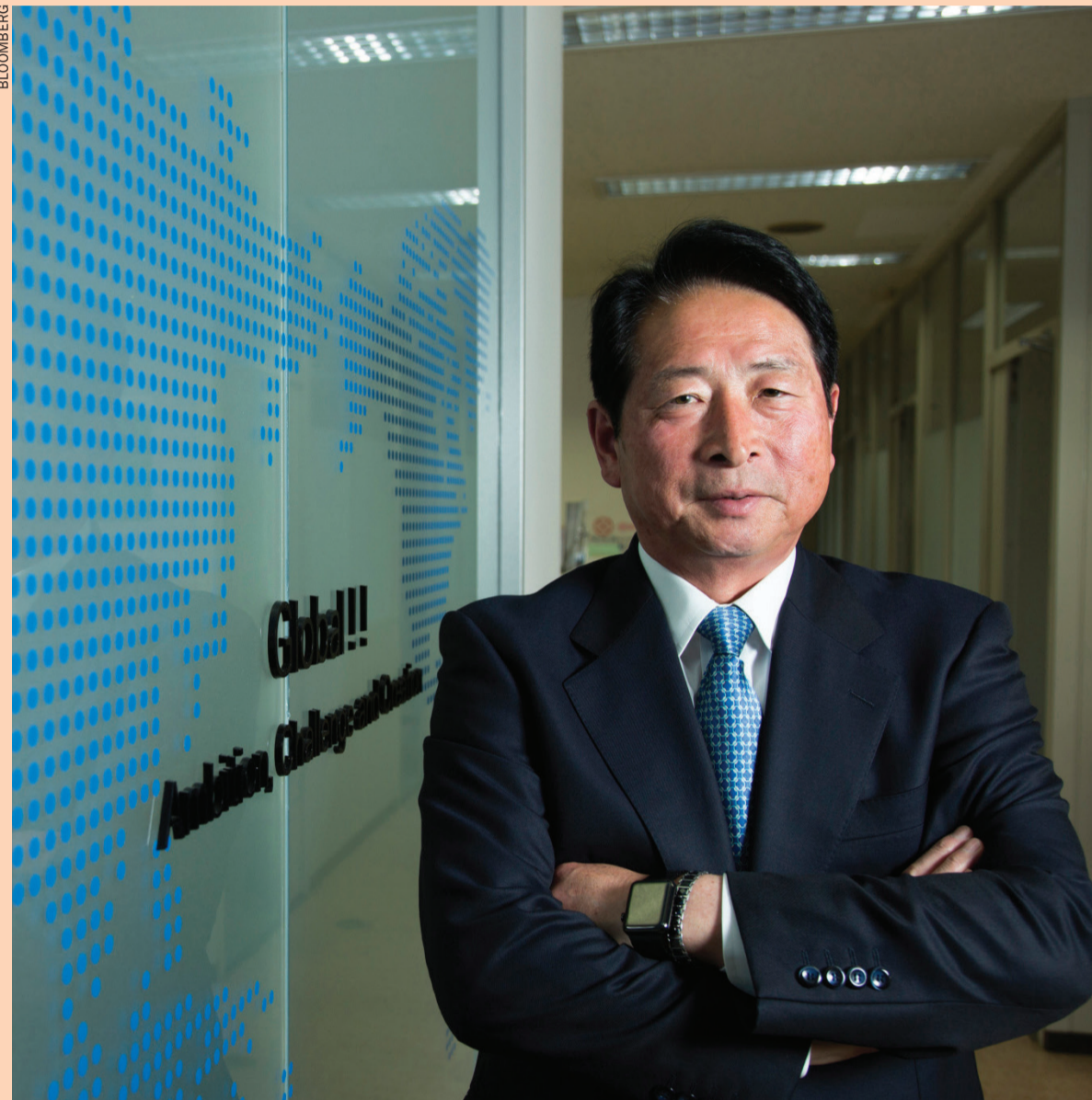
Sun's shares soared 17 percent, the exchange-imposed limit, in Tokyo trading Wednesday. The shares surged after Sun confirmed Cellebrite's agreement to provide additional support to Interpol's global efforts to fight cybercrime.

Petah Tikva, Israel-based Cellebrite is said to have worked with the Federal Bureau of Investigation to crack an iPhone connected with the San Bernardino, California terrorist attack in December and the company also helped authorities access devices used by assailants in the Paris shootings last year, according to people familiar with the matter.

Aside from the FBI, Cellebrite now has a client list that includes some of the world's most secretive spy organizations, such as the U.S. Central Intelligence Agency and Interpol, according to the people, who asked to not be identified because the information is private. Interpol signed an agreement with Cellebrite last week in which the company will provide a unit of the international police organization with digital forensic equipment and training services over a three-year period.

Sun is intent on growing its business, said Yamaguchi. Demand for the mobile forensics services of Cellebrite will grow as much as 20 percent annually in revenue, he said.

"There are very few companies like us, and I think this is our strength," Yamaguchi said. "As for the next step, we're open to the idea of teaming up with companies that possess unique technology in



Masanori Yamaguchi, chief executive officer of Sun Corp

■ Sales in Sun's mobile data solution business is expected to expand 10 percent to 20 percent annually in the coming years

forensics. We will continue to search for an appropriate partner."

The sensitivity of the technology, and the edge it provides to law enforcement, means companies and government agencies are reluctant to discuss methods of data extraction. Sun declined to release names of cases or clients, while the FBI, which said a third party had demonstrated a way to get into the iPhone connected to the San Bernardino shootings, has also not disclosed its partner.

The CIA and the office of the Paris prosecutor in charge of the investigation into last year's attacks there declined to comment. Interpol said it couldn't confirm whether Cellebrite aided in hacking phones used in the Paris shootings as law enforcement in that city handled the investigation.

Sun's shares had surged after March 21 when the FBI said a third party had demonstrated a way to get into the iPhone. The stock rose 17 percent to 1,049 yen by the close of trading in Tokyo on Wednesday, reaching its highest level since March 31.

The company, which employed 40 workers when Sun acquired it in 2007, has grown to become a 500-person firm with nine offices on four continents focusing on work to extract data, decode and analyze Apple devices, including iPods, iPads, and iPhones. Its technology can also be performed on locked Apple devices with simple or complex passcodes, and can also be used to recover deleted data, according to the company's website.

Sun is looking for targets with

expertise in unlocking data on personal computers, Yamaguchi said. The company could issue and sell as many as 2 million new shares, about 10 percent of existing shares, to raise funds within two years, he said. The proceeds, about 1.8 billion yen at Tuesday's share price, would be used to build the company's forensics business as well as augmented reality and machine-to-machine communications, he said.

"We've had unexpected feedback," he said. "Although we appreciate attention being paid to our company, we must focus on our business and make every effort to improve our services."

Sun has been building components for pinball-like game machines found in Japan's pachinko parlors since the 1970s, and moved on to developing personal computers, video games and more recently, iPhone mahjong apps. In 2007, as sales slumped, Sun acquired Cellebrite for a reported \$17.5 million. It hadn't ventured into forensics at the time, and later expanded its customer base beyond mobile phone retailers to police and

law enforcement authorities throughout the world, said Yamaguchi.

Revenue from Sun's mobile data solutions division overtook pachinko parts in the fiscal year ended March 2014 and contributed 13.6 billion yen or 50 percent of sales in fiscal year ended March 2015, according to data compiled by Bloomberg. The bulk of Sun's mobile data solutions business comes from Cellebrite, company spokesman Hidefumi Sugaya said March 31.

Cellebrite's website is full of kudos from police forces around the globe crediting its technology for facilitating investigations. On the Cellebrite website, the Providence, Rhode Island police department, for example, says the company helped it solve the 2014 gang-related murder of a 12-year-old girl and three other women at a graduation party.

Transparency Market Research, a global market intelligence company, forecast in March that increasing terrorist attacks and crime will push the digital forensics market to 13 percent annual growth to \$4.97 billion by 2021.

Cellebrite has emerged as a leading player in the security privacy industry, said Richard Overill, a senior lecturer in computer science at King's College in London who has studied the sector since 1992. Yamaguchi says the company commands a 55 percent market share of the U.S. forensics market.

"The general opinion is that Cellebrite's digital forensics products for mobile devices are leading edge state-of-the-art," said Overill. "They have put more effort, experience and expertise into studying the potentially exploitable vulnerabilities in these systems than other companies, and as a result have been able to produce superior products."

Sales in Sun's mobile data solution business is expected to expand 10 percent to 20 percent annually in the coming years, as demand for Cellebrite's devices and services are likely to increase, especially in China and India, Yamaguchi said.

"We've been cutting weight of pachinko-related business while becoming increasingly reliant on Cellebrite," said Yamaguchi. "We want to keep improving our technology to provide better services and skills to make the world safe and peaceful." **Bloomberg**

By Philip Marcelo in Boston

TRANSPORTATION

Women-only car services fill a niche, but are they legal?

RIDE-HAILING companies catering exclusively to women are cropping up and raising thorny legal questions, namely: Are they discriminatory?

In Massachusetts, Chariot for Women is promising to launch a service featuring female drivers picking up only women and children. Drivers will even have to say a "safe word" before a ride starts.

Michael Pelletz, a former Uber driver, said he started the company with his wife, Kelly, in response to instances of drivers for ride-hailing services charged with assaulting female passengers.

He believes their business plan is legal, and he's prepared to make his case in court, if it comes to that. The couple had planned an April 19 launch but now say they're pushing it back to the summer to make sure their app can handle demand they say has exceeded expectations.

"We believe that giving women and their loved ones peace of mind is not only a public policy imperative but serves an essential social interest," Pelletz said. "Our service is intended to protect these fundamental liberties."

In New York City, the owners of SheRides are also promising a reboot this summer.

Fernando Mateo, who co-founded the company with his wife, Stella, said the company put the brakes on its planned launch in 2014 after spending tens of thou-



Michael Pelletz, left, and Kelly Pelletz, both of Charlton, Mass., who together created the ride-sharing service Chariot for Women

sands of dollars on legal fees as activists and male drivers threatened to sue. The company settled one challenge, he said.

"We were accused of all sorts of things," Mateo said. "So we went back to the drawing board."

When the company re-launches as SheHails, men will be permitted as drivers and passengers. It will be left to female drivers to accept male passengers, and for female passengers to accept rides from male drivers.

While taxis driven by and for women are common in Dubai and India, such businesses would likely run afoul of anti-discrimination laws in the U.S., industry and legal experts said.

Major ride-hailing companies Uber and Lyft don't give users

the option of requesting a driver based on gender. The Taxicab, Limousine & Paratransit Association, a trade group, says companies vary on whether women may request a female taxi driver.

"The safety issue is a really big deal," said Rosabeth Moss Kanter, a professor at the Harvard Business School. "But you just can't discriminate. You can't turn people away."

On the employment side, the federal Civil Rights Act bans gender-based hiring except when deemed essential.

Courts have interpreted that "bona fide occupational qualification" clause very narrowly, said Elizabeth Brown, a business law professor at Bentley University in Waltham.

Prisons, for example, have been permitted to hire female guards in select situations, but the airline industry was famously ordered to end the practice of hiring only women as flight attendants in a 1971 U.S. Supreme Court ruling.

Whether the 1964 civil rights law applies is also an open question. The U.S. Equal Employment Opportunity Commission, which enforces the law, declined to comment on the legality of women-only ride-hailing services.

But spokeswoman Justine Lisser noted employers whose workers are independent contractors, as is the case with Mateo and Pelletz's companies, are generally outside the agency's purview.

On the consumer side, Massachusetts and many other states have anti-gender discrimination laws governing "public accommodations" like transportation services.

But those too, have exceptions. In Massachusetts, for example, women's-only gyms won a special legislative carve-out in 1998.

Michelle Sicard, a Granby resident who recently signed up as a Chariot for Women driver, said she isn't concerned about the legal debate.

"I don't think it's discriminating against anyone. It's another way to make women feel safe," said the 33-year-old postal worker. "I just think people overthink things and everything becomes a battle of the sexes."

But Harry Campbell, an Uber and Lyft driver in Los Angeles who runs The Rideshare Guy, a blog and podcast, fears the idea could be a "slippery slope" to other forms of discrimination.

Stronger background checks on drivers and regular monitoring of current ones might be a better approach, he suggested.

"There are likely passengers who would feel more comfortable with drivers who are the same race or same ethnicity, so where do we draw the line?" Campbell said.

Female ride-hailing users in the Boston area interviewed by The Associated Press had mixed feelings.

Ashley Barnett, a 24-year-old from Somerville, said it's "well intended" but avoids a larger societal problem — people's attitudes toward women.

"It's a solution to a problem that's way bigger than transportation," she said.

Carolina Quintanilla, a 22-year-old from Boston, said she'd consider using the service at night. But even then, she said, there's no guarantee of safety.

"There are crazy women out there, too," Quintanilla said. "You never really know nobody's intentions. You have to trust your instincts." AP

ASK THE VET

by Dr Ruan Du Toit Bester



CONTROLLING CAT HERPES WITH L-LYSINE SUPPLEMENTS

CAT herpes, otherwise known as rhinotracheitis, is an upper respiratory illness that can also potentially affect the eyes. It is an airborne virus, and because of how easily cat herpes spreads, cats that live with other cats in the same household are the most at risk. While L-Lysine supplements are not a direct cure for cat herpes, it has been clinically shown to both decrease a cat's risk of contracting the rhinotracheitis virus, and slow the growth of the infection.

SYMPTOMS OF CAT HERPES

You can tell if your cat has the cat herpes virus if it displays excessive sneezing and nasal discharge. Cats infected with the feline herpes virus can also get rhinitis, or an inflammation of the nose. It is uncommon for a case of cat herpes to affect the eyes, except in young kittens, which have a less developed immune system. Ocular infection also grows more likely as the cat gets older. Kittens usually experience so much ocular discharge that their eyelids stick together, while adult cats that contract an ocular case of rhinotracheitis are more likely to display corneal ulcers and

recurrent conjunctivitis (inflammation of the membrane lining the eyelid).

HOW DO L-LYSINE SUPPLEMENTS WORK?

Viral infections grow when an individual virus takes control of a host cell and makes it use its resources to manufacture more viruses. The virus does this by injecting its DNA into the nucleus of the host cell. This strip of genetic material contains instructions that the cell's chemical machinery can use to build more viruses. The host cell, unable to distinguish between the viral DNA and its own, will continue to make more viruses until it bursts, releasing the viruses into the body to infect more cells.

An uninfected cell usually does not use much of a particular amino acid called arginine, while cells that are infected use a lot of it to make more copies of the virus. The cell's natural chemical process that uses arginine is limited by the quantity of L-Lysine (another amino acid) that's available. By giving daily L-Lysine supplements to your cat, you increase the quantity of L-Lysine available for the cat's cells to use, which means that the cell uses more argini-

ne for its natural functions. This leaves less arginine available for the production of the cat herpes virus, thereby slowing the growth of the infection.

While the respiratory form of feline herpes is an uncomfortable and contagious infection, still more unbearable for a feline is an ocular rhinotracheitis infection. By administering a daily L-Lysine supplement, you can both help slow an already present infection in your cat, and prevent your cat from contracting future infections.

Hope this info helps all our cat lovers
Till next week
Dr Ruan

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