Why physicians deserve a better system — and how to get there

Get off the endangered list.

Receive a $100 gift card when you complete a 20-minute practice analysis.*
Why physicians deserve a better system — and how to get there

Let us help save your primary care practice from extinction.

Each year, practicing primary care gets more and more difficult—even without a pandemic—but there's hope. SignatureMD, a leader in membership-based medicine, has helped hundreds of primary care physicians thrive, not just survive. We do this by increasing practice revenue and profitability all while enabling physicians to regain their joy of practicing medicine and finding better work-life balance.

MedicalEconomics.com
Why physicians deserve a better system — and how to get there

A low-risk transition vs. possible extinction.
If you’re hesitant to make the leap, we completely understand. Our company is risk-conscious, too. That’s why we offer the only high-reward, low-risk customized medicine model to help transition with peace of mind—we call it a segmented model. Don’t allow a fear of the unknown to keep you from exploring your options.

Don’t just survive. Thrive. Call 866.868.0565 today or visit SignatureMD.com/physicians

*Only qualified physicians will be invited to participate and eligible to receive $100 gift card. Offer ends September 30, 2022.
**Physicians who integrated our personalized care model into their practices in 2021 added, on average, over $400,000 in membership revenue.
Why physicians deserve a better system — and how to get there

FIXING PRIMARY CARE

Practice Management
Benchmarking 101: What metrics your practice should track

Legal
How to avoid claim denials for medical necessity

Chronic Conditions
The role of continuous glucose monitoring in managing diabetes

Buy-in agreements: What to do when adding (or becoming) a practice owner

Physicians Financial News
Reality check: Why financial apocalypse is not upon us

MedicalEconomics.com
**TAKING ON SHINGLES TAKES TWO DOSES**

MAKE SURE YOUR PATIENTS RETURN FOR THEIR 2ND DOSE OF SHINGRIX

**Indication**
SHINGRIX is a vaccine indicated for prevention of herpes zoster (shingles) in adults aged 50 years and older. SHINGRIX is not indicated for prevention of primary varicella infection (chickenpox).

**Important Safety Information**
- SHINGRIX is contraindicated in anyone with a history of a severe allergic reaction (eg, anaphylaxis) to any component of the vaccine or after a previous dose of SHINGRIX
- Review immunization history for possible vaccine sensitivity and previous vaccination-related adverse reactions. Appropriate medical treatment and supervision must be available to manage possible anaphylactic reactions following administration of SHINGRIX
- In a postmarketing observational study, an increased risk of Guillain-Barré syndrome was observed during the 42 days following vaccination with SHINGRIX
- Syncope (fainting) can be associated with the administration of injectable vaccines, including SHINGRIX. Procedures should be in place to avoid falling injury and to restore cerebral perfusion following syncope

**DOSE 1**
Administer now

**DOSE 2**
Administer 2-6 months later

TAKING ON SHINGLES TAKES TWO DOSES

MAKE SURE YOUR PATIENTS RETURN FOR THEIR 2ND DOSE OF SHINGRIX

SHINGRIX
(ZOSTER VACCINE RECOMBINANT, ADJUVANTED)

**DOSE 1**
Administer now

**DOSE 2**
Administer 2-6 months later

TAKING ON SHINGLES TAKES TWO DOSES

MAKE SURE YOUR PATIENTS RETURN FOR THEIR 2ND DOSE OF SHINGRIX

SHINGRIX
(ZOSTER VACCINE RECOMBINANT, ADJUVANTED)

**DOSE 1**
Administer now

**DOSE 2**
Administer 2-6 months later

TAKING ON SHINGLES TAKES TWO DOSES

MAKE SURE YOUR PATIENTS RETURN FOR THEIR 2ND DOSE OF SHINGRIX

SHINGRIX
(ZOSTER VACCINE RECOMBINANT, ADJUVANTED)

**DOSE 1**
Administer now

**DOSE 2**
Administer 2-6 months later

TAKING ON SHINGLES TAKES TWO DOSES

MAKE SURE YOUR PATIENTS RETURN FOR THEIR 2ND DOSE OF SHINGRIX

SHINGRIX
(ZOSTER VACCINE RECOMBINANT, ADJUVANTED)

**DOSE 1**
Administer now

**DOSE 2**
Administer 2-6 months later

TAKING ON SHINGLES TAKES TWO DOSES

MAKE SURE YOUR PATIENTS RETURN FOR THEIR 2ND DOSE OF SHINGRIX

SHINGRIX
(ZOSTER VACCINE RECOMBINANT, ADJUVANTED)

**DOSE 1**
Administer now

**DOSE 2**
Administer 2-6 months later
THE IMPORTANCE OF THE 2ND DOSE

If your patients have already come into your office for their first dose of SHINGRIX, they’re not done. SHINGRIX is a 2-dose series with the second dose given anytime between 2 and 6 months after the first.¹ That’s important: The efficacy of SHINGRIX was demonstrated in clinical trials when it was administered as a 2-dose series.¹ They count on you to administer dose #2.

MANAGE EXPECTATIONS:
DISCUSS ADVERSE REACTIONS

Patients may experience adverse reactions. The key: throughout the vaccination process, make sure patients know what to expect. The most common side effects observed in clinical trials were pain, redness, and swelling at the injection site, myalgia, fatigue, headache, shivering, fever, and gastrointestinal symptoms.¹

FOLLOW UP:
REMIND PATIENTS TO RETURN

With the busy lives your patients lead, they can occasionally miss their second dose. Reminders can help. So, encourage patients to sign up for calls, emails, or text messages at SHINGRIXreminder.com.

Get additional patient counseling tips at seeSHINGRIXhcp.com

Important Safety Information (cont’d)

• Solicited local adverse reactions reported in individuals aged 50 years and older were pain (78%), redness (38%), and swelling (26%)
• Solicited general adverse reactions reported in individuals aged 50 years and older were myalgia (45%), fatigue (45%), headache (38%), shivering (27%), fever (21%), and gastrointestinal symptoms (17%)
• The data are insufficient to establish if there is vaccine-associated risk with SHINGRIX in pregnant women
• It is not known whether SHINGRIX is excreted in human milk. Data are not available to assess the effects of SHINGRIX on the breastfed infant or on milk production/excretion
• Vaccination with SHINGRIX may not result in protection of all vaccine recipients

Please see Brief Summary of Prescribing Information for SHINGRIX on the following pages.

Reference: 1. Prescribing Information for SHINGRIX.

Trademarks are owned by or licensed to the GSK group of companies.

©2021 GSK or licensor.
SGXJRNA210074 September 2021
Produced in USA.
BRIEF SUMMARY

SHINGRIX (Zoster Vaccine Recombinant, Adjuvanted)

The following is a brief summary only; see full prescribing information for complete product information.

1 INDICATIONS AND USAGE

SHINGRIX is a vaccine indicated for prevention of herpes zoster (HZ) (shingles) in adults aged 50 years and older.

2 DOSAGE AND ADMINISTRATION

2.2 Administration Instructions

For intramuscular injection only.

After reconstitution, administer SHINGRIX immediately or store refrigerated between 2° and 8°C (36° and 46°F) and use within 6 hours. Discard reconstituted vaccine if not used within 6 hours.

2.3 Dose and Schedule

Two doses (0.5 mL each) administered intramuscularly according to the following schedule:

• A first dose at Month 0 followed by a second dose administered 2 to 6 months later.

4 CONTRAINDICATIONS

Do not administer SHINGRIX to anyone with a history of a severe allergic reaction (e.g., anaphylaxis) to any component of the vaccine or after a previous dose of SHINGRIX [see Description (11) of full prescribing information].

5 WARNINGS AND PRECAUTIONS

5.1 Preventing and Managing Allergic Vaccine Reactions

Prior to administration, the healthcare provider should review the immunization history for possible vaccine sensitivity and previous vaccination-related adverse reactions. Appropriate medical treatment and supervision must be available to manage possible anaphylactic reactions following administration of SHINGRIX.

5.2 Guillain-Barré Syndrome (GBS)

In a postmarketing observational study, an increased risk of GBS was observed during the 42 days following vaccination with SHINGRIX [see Adverse Reactions (6.2)].

5.3 Syncope

Syncope (fainting) can be associated with the administration of injectable vaccines, including SHINGRIX. Syncope can be accompanied by transient neurological signs such as visual disturbance, paresthesia, and tonic-clonic limb movements. Procedures should be in place to avoid falling injury and to restore cerebral perfusion following syncope.

6 ADVERSE REACTIONS

6.1 Clinical Trials Experience

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a vaccine cannot be directly compared with rates in the clinical trials of another vaccine and may not reflect the rates observed in practice. There is the possibility that broad use of SHINGRIX could reveal adverse reactions not observed in clinical trials.

Adults Aged 50 Years and Older

Overall, 17,041 adults aged 50 years and older received at least 1 dose of SHINGRIX in 17 clinical studies.

The safety of SHINGRIX was evaluated by pooling data from 2 placebo-controlled clinical studies (Studies 1 and 2) involving 29,305 subjects aged 50 years and older who received at least 1 dose of SHINGRIX (n = 14,645) or saline placebo (n = 14,660) administered according to a 0- and 2-month schedule. At the time of vaccination, the mean age of the population was 69 years; 7,286 (25%) subjects were aged 50 to 59 years, 4,488 (15%) subjects were aged 60 to 69 years, and 17,531 (60%) subjects were aged 70 years and older. Both studies were conducted in North America, Latin America, Europe, Asia, and Australia. In the overall population, the majority of subjects were White (74%), followed by Asian (18%), Black (1.4%), and other racial/ethnic groups (6%); 58% were female.

Solicited Adverse Reactions: In Studies 1 and 2, data on solicited local and general adverse reactions were collected using standardized diary cards for 7 days following each vaccine dose or placebo (i.e., day of vaccination and the next 6 days) in a subset of subjects (n = 4,868 receiving SHINGRIX, n = 4,881 receiving placebo) with at least 1 documented dose). Across both studies, the percentages of subjects aged 50 years and older reporting each solicited local and general adverse reaction following administration of SHINGRIX (both doses combined) were pain (78%), redness (38%), and swelling (26%); and myalgia (45%), fatigue (45%), headache (38%), shivering (27%), fever (21%), and gastrointestinal symptoms (17%).

The reported frequencies of specific solicited local adverse reactions and general adverse reactions (overall per subject), by age group, from the 2 studies are presented in Table 1.

Table 1. Percentage of Subjects with Solicited Local and General Adverse Reactions within 7 Days of Vaccination in Adults Aged 50 to 59 Years, 60 to 69 Years, and 70 Years and Older* (Total Vaccinated Cohort with 7-Day Diary Card)

<table>
<thead>
<tr>
<th>Adverse Reactions</th>
<th>Aged 50-59 Years (%)</th>
<th>Aged 60-69 Years (%)</th>
<th>Aged ≥70 Years (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SHINGRIX Placebo*</td>
<td>SHINGRIX Placebo*</td>
<td>SHINGRIX Placebo*</td>
</tr>
<tr>
<td>Pain</td>
<td>13</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>Myalgia</td>
<td>35</td>
<td>34</td>
<td>35</td>
</tr>
<tr>
<td>Myalgia, Grade 3</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Fatigue</td>
<td>36</td>
<td>35</td>
<td>36</td>
</tr>
<tr>
<td>Fatigue, Grade 3</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Headache</td>
<td>38</td>
<td>37</td>
<td>38</td>
</tr>
<tr>
<td>Headache, Grade 3</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Shivering</td>
<td>29</td>
<td>28</td>
<td>29</td>
</tr>
<tr>
<td>Shivering, Grade 3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Total vaccinated cohort for safety included all subjects with at least 1 documented dose (n). * 7 days included day of vaccination and the subsequent 6 days. * Data for subjects aged 50 to 59 years and 60 to 69 years are based on Study 1. Data for subjects 70 years and older are based on pooled data from Study 1: NCT01165177 and Study 2: NCT01165229. * Placebo was a saline solution. * Grade 3 pain; Defined as significant pain at rest; prevents normal everyday activities. * Grade 3 myalgia, fatigue, headache, shivering, and GI: Defined as preventing normal activity. * Fever defined as ≥37.5°C/99.5°F for oral, axillary, or tympanic route, or ≥38°C/100.4°F for rectal route; Grade 3 fever defined as >39.0°C/102.2°F. * GI = Gastrointestinal symptoms including nausea, vomiting, diarrhea, and/or abdominal pain.

The incidence of solicited local and general reactions was lower in subjects aged 70 years and older compared with those aged 50 to 69 years.

The local and general adverse reactions seen with SHINGRIX had a median duration of 2 to 3 days.

(continued on next page)
There were no differences in the proportions of subjects reporting any or Grade 3 solicited local reactions between Dose 1 and Dose 2. Headache and shivering were reported more frequently by subjects after Dose 2 (28% and 21%, respectively) compared with Dose 1 (24% and 14%, respectively). Grade 3 solicited general adverse reactions (headache, shivering, myalgia, and fatigue) were reported more frequently by subjects after Dose 2 (2.3%, 3%, 4%, and 4%, respectively) compared with Dose 1 (1.4%, 1.4%, 2.3%, and 2.4%, respectively).

**Unsolicited Adverse Events:** Unsolicited adverse events that occurred within 30 days following each vaccination (Day 0 to 29) were recorded on a diary card by all subjects. In the 2 studies, unsolicited adverse events occurring within 30 days of vaccination were reported in 51% and 32% of subjects who received SHINGRIX (n = 14,645) or placebo (n = 14,660), respectively (Total Vaccinated Cohort). Unsolicited adverse events that occurred in ≥1% of recipients of SHINGRIX and at a rate at least 1.5-fold higher than placebo included chills (4% versus 0.2%), injection site pruritus (2.2% versus 0.2%), malaise (1.7% versus 0.3%), arthralgia (1.7% versus 1.2%), nausea (1.4% versus 0.5%), and dizziness (1.2% versus 0.8%).

Gout (including gouty arthritis) was reported by 0.18% (n = 27) versus 0.05% (n = 8) of subjects who received SHINGRIX or placebo, respectively, within 30 days of vaccination; available information is insufficient to determine a causal relationship with SHINGRIX.

**Serious Adverse Events (SAEs):** In the 2 studies, SAEs were reported at similar rates in subjects who received SHINGRIX (2.2%) or placebo (2.2%) from the first administered dose up to 30 days post-last vaccination. SAEs were reported for 10.1% of subjects who received SHINGRIX and for 10.4% of subjects who received placebo from the first administered dose up to 1 year post-last vaccination. One subject (<0.01%) reported lymphadenitis and 1 subject (<0.01%) reported fever greater than 39°C; there was a basis for a causal relationship with SHINGRIX.

Optic ischemic neuropathy was reported in 3 subjects (0.02%) who received SHINGRIX (all within 30 days after vaccination) and 0 subjects who received placebo; available information is insufficient to determine a causal relationship with SHINGRIX.

**Deaths:** From the first administered dose up to 30 days post-last vaccination, deaths were reported for 0.04% of subjects who received SHINGRIX and 0.05% of subjects who received placebo in the 2 studies. From the first administered dose up to 1 year post-last vaccination, deaths were reported for 0.8% of subjects who received SHINGRIX and for 0.9% of subjects who received placebo. Causes of death among subjects were consistent with those generally reported in adult and elderly populations.

**Potential Immune-Mediated Diseases:** In the 2 studies, new onset potential immune-mediated diseases (pIMDs) or exacerbation of existing pIMDs were reported for 0.6% of subjects who received SHINGRIX and 0.7% of subjects who received placebo from the first administered dose up to 1 year post-last vaccination. The most frequently reported pIMDs occurred with comparable frequencies in the group receiving SHINGRIX and the placebo group.

**Dosing Schedule:** In an open-label clinical study, 238 subjects 50 years of age and older were enrolled. A total of 2 doses of SHINGRIX were administered; available information is insufficient to determine a causal relationship with SHINGRIX.

**Risk Summary**

It is not known whether SHINGRIX is excreted in human milk. Data are not available to assess the effects of SHINGRIX on the breastfed infant or on milk production/excretion [see Use in Specific Populations (8.2) of full prescribing information].

**8.5 Geriatric Use**

Adults Aged 60 Years and Older

Of the total number of subjects who received at least 1 dose of SHINGRIX in Studies 1 and 2 (n = 14,645), 2,243 (15%) were aged 60 to 69 years, 6,837 (47%) were aged 70 to 79 years, and 1,921 (13%) were 80 years and older. There were no clinically meaningful differences in efficacy across the age groups [see Clinical Studies (14.1, 14.2, 14.3) of full prescribing information].

The frequencies of solicited local and general adverse reactions in subjects aged 70 years and older were lower than in younger adults (aged 50 through 69 years). [See Adverse Reactions (6.1).]]

**17 PATIENT COUNSELING INFORMATION**

• Inform patients of the potential benefits and risks of immunization with SHINGRIX and of the importance of completing the 2-dose immunization series according to the schedule.
• Inform patients about the potential for adverse reactions that have been temporally associated with administration of SHINGRIX.
• Provide the Vaccine Information Statements, which are available free of charge at the Centers for Disease Control and Prevention (CDC) website (www.cdc.gov/vaccines).

Trademarks are owned by or licensed to the GSK group of companies.

Manufactured by GlaxoSmithKline Biologicals Rixensart, Belgium, U.S. License 1617, and Distributed by GlaxoSmithKline Research Triangle Park, NC 27709

©2021 GSK group of companies or its licensor. July 2021 SHX-8BRS

©2021 GSK or licensor. SGXJRNA210074 September 2021 Produced in USA.
For 93 years, Medical Economics® has gauged the state of the medical profession with our Physician Report, a comprehensive survey of our audience that delves into the financial health of practices, salary levels, productivity, malpractice costs and much more.

The results of this year’s survey are published in the issue in your hands.

This year’s survey, covering 2021, is a unique window into how practices fared as the COVID-19 pandemic crawled on. We know the story of 2020, when lockdowns forced practices to pivot to virtual visits almost exclusively, and keeping doors open in such a restrictive environment proved one of the defining financial challenges of modern medical history.

“It was much more severe than many people realized,” says L. Allen Dobson, Jr., M.D., a family physician and editor-in-chief of Medical Economics®. “The notion that it would come back in one year I think it will be multiple years before practices recover from those two years of total disruption, particularly in the primary care side.”

So we were interested in seeing in the data how practices were doing a year later. There’s good news, and bad. Flip to page 24 in this issue to see the full report.

Accompanying our data package is an in-depth look at the state of primary care today, what COVID-19 has done to it, and what opportunities there are to fix our primary care system. You won’t want to miss it.

As always, we want to hear from our readers on what you think about our content, and what ideas you have to help us serve the physician community better. Reach out to our editorial director, Chris Mazzolini, at cmazzolini@mjhlifesciences.com with any feedback.

Mike Hennessy Jr.
President and CEO of MJH Life Sciences®
Physician’s Financial News®

6 Reality check: Financial apocalypse isn’t upon us...

8 ...but we may already be in a recession

The latest insights from Seeking Alpha.

Careers

16 Fixing primary care

Why physicians deserve a better system — and how to get there

21 Family physicians vs. the health system

An exclusive excerpt from a new book about the history and future of family medicine.

Practice Management

24 The 93rd Annual Physician Report

Exclusive physician survey results on salary, practice finances, malpractice, and more.

Health Economics

34 Benchmarking your practice

The important metrics every practice should track to ensure financial success.

President’s Message

From the Editor-in-Chief

41 How do we care for the caregivers?

Chronic Conditions

42 The role of continuous glucose monitoring in diabetes management

Physician’s Money Digest®

36 Physician buy-in agreements

What physicians need to know when they become a new owner or add a partner.

Technology

40 Tech for revenue

How digital tools can help physicians collect what they are owed.

Special Report

4 The /nine.lnum/three.lnumrd Annual Physician Report

Exclusive physician survey results on salary, practice finances, malpractice, and more.

Physician World News®

48 Christopher Fly, M.D.: Physician and beekeeper

The important metrics every practice should track to ensure financial success.

Physician World News®
Reality check: Financial apocalypse isn’t upon us

By Dave Gilreath, CFP

Fear that a market-punishing recession is right around the corner seems ubiquitous. Headlines, cable news chyrons, social media, talking heads, investment analysts and politicians solemnly convey the following composite message:

Monetary actions by the Federal Reserve Board will plunge the nation into recession this year or early next. This fate is confirmed in blinking neon by the trends in yields of Treasury bonds of different maturities, known as the yield curve. The recession will push the already declining stock market much lower, squeezing returns of millions of Americans investing for retirement. Inflation, at a 40-year high, is wrecking our economy and will continue indefinitely. The war in Ukraine will grind the market down even further.

Bleak picture
This picture of financial conditions is the bleakest since the financial crisis of 2008 (an actual crisis). Astonishingly, these prognosticators seem quite certain about something that is impossible to predict with certainty. At the very least, some of their predictions lack nuance and qualification. At the worst, they misleadingly rely on analysis that is flat-out wrong, hyped or distorted.

Sure, economists cover themselves with a lot of if-then statements. But the general tone of the media and some renowned investors these days is that a recession is coming soon — no question about it — and it will push the market far below current levels. The message is clear: Financial apocalypse is at our doorstep.

Sure, a recession is coming. Recessions are like rain: One is always coming. The question is: When? Doomsayers seem impervious to various data indicating that a recession before 2024 (if even then) is unlikely. They dismiss various indications that regardless of what happens with the economy, the market will not necessarily tank. But not all bear markets occur with recessions and not all bull markets occur with great economies.

Reality check
Here are some points that challenge the basis for the current hysteria.

The obsession with the direction of Treasury-yield curves is based partly on error, partly on assumption. National media, always looking for simplicity, obsessively monitor the slope of the curve of yields of the two-year and 10-year Treasury bills, as if this is a sure-fire recession indicator. They cover the flattening of this curve as though it were the horrifying descent of the suspended swinging blade in Edgar Allan Poe’s “The Pit and the Pendulum,” threatening to disembowel the economy.

Recession forecasting should rely on myriad data, not just Treasury-yield curves in isolation.

Unfortunately, they are looking at the wrong curve. The more predictive curve is the three-month/10-year, which is currently steepening, suggesting no approaching recession. The inferiority of the two-year/10-year curve as a recession indicator is a matter of historical record. This was clearly demonstrated again in 2018: After an angst-filled summer that year with this curve flattening, no recession ensued. Regardless, recession forecasting should rely on myriad data, not just Treasury-yield curves in isolation.

On the occasions when recessions do follow the flattening of Treasury-yield curves, on average they have historically occurred about 17 months later — and after a 14% gain in the S&P 500. People who are liquidating stocks now to sit out a recession may end up ruining that decision even before a recession begins.

In late April, the government reported the economy contracted in the first quarter by 1.4%, mostly due to inventory adjustments. At nearly the same time, many economic indicators released certainly did not point to a recession. Durable goods orders, personal consumption, unemployment, consumer confidence expectations and auto sales orders all pointed to a strong economy. The economy is solid, but when Fed Chairman Jerome Powell rattles off a litany of statistics demonstrating this at news conferences, no one seems to care. Never mind that jobs are plentiful and many households are in good shape, with low debt and high savings — and a collective excess of $2 trillion accumulated during pandemic quarantining, just waiting to be spent on summer vacations, year-round travel and dining out. Increasing travel and hospitality industry revenues show that the floodgates on this spending have opened.
Historically high inflation is spurring interest rate increases, but for most people this is not the albatross it is made out to be. For one thing, inflation is expected to diminish late this year or early next as supply chain bottlenecks ease and the current labor shortage abates. For another, those harping on inflation like to cite rising fuel costs, although the average American household spends only about 12% of its budget on food and energy combined. So current inflation has a relatively small impact on these people. But that has not stopped rising gas prices from becoming part of the current gloom-and-doom quotient.

Financial media are laser-focused on Fed watching, on the assumption that its monetary policy changes to fight inflation — interest rate increases and paring the balance sheet of purchased debt — will bring on recession. Although extremely difficult, the Fed’s task is not impossible. Even if the Fed’s actions do trigger recession, it probably will not be anything like the Great Recession of 2007 to 2009, which was almost a depression. If, as widely expected, the Fed incrementally increases the Fed funds rate to 2.75% or 3% this year, this will still be a low level historically. Companies will still be able to borrow money cheaply to finance research and development and propel growth.

One reason the Fed’s actions do trigger recession, it probably will not be anything like the Great Recession of 2007 to 2009, which was almost a depression. If, as widely expected, the Fed incrementally increases the Fed funds rate to 2.75% or 3% this year, this will still be a low level historically. Companies will still be able to borrow money cheaply to finance research and development and propel growth.

One reason the Fed’s actions do trigger recession, it probably will not be anything like the Great Recession of 2007 to 2009, which was almost a depression. If, as widely expected, the Fed incrementally increases the Fed funds rate to 2.75% or 3% this year, this will still be a low level historically. Companies will still be able to borrow money cheaply to finance research and development and propel growth.

One reason the Fed’s actions do trigger recession, it probably will not be anything like the Great Recession of 2007 to 2009, which was almost a depression. If, as widely expected, the Fed incrementally increases the Fed funds rate to 2.75% or 3% this year, this will still be a low level historically. Companies will still be able to borrow money cheaply to finance research and development and propel growth.

One reason the Fed’s actions do trigger recession, it probably will not be anything like the Great Recession of 2007 to 2009, which was almost a depression. If, as widely expected, the Fed incrementally increases the Fed funds rate to 2.75% or 3% this year, this will still be a low level historically. Companies will still be able to borrow money cheaply to finance research and development and propel growth.

Sure, a recession is coming. Recessions are like rain: One is always coming. The question is: When?

What makes projections of much lower returns this year hard for many to accept is their mistaken belief that we have had a continuous bull market since 2009. This is not the case. We had a short bear market in late 2018/early 2019, and starting in March 2020 there was a brief bear market along with a brief recession from the impacts of pandemic lockdowns. So far this year, a lot of air has already come out of much of the market. The average S&P 500 stock has already declined more than 20% from its 52-week high, a sort of rolling bear market. In fearing a bear market, many people are fearing much of what has already happened.

For good measure, crisis predictors like to end their litany of negatives by mentioning the war in Ukraine. Although the war is profoundly unfortunate, with many civilian lives lost, it is not depressing stock values much, so it would be a mistake to sell stocks just because of the war. Although wars around the world do not usually drive the U.S. market down, investing toward the end of wars is usually a good move because the cessation of hostilities is often an upward catalyst. There may be some buying opportunities as the Ukraine war concludes. Of course, that may not be for months or even years.

Long-term forces
So powerful is the current sense of doom that investor sentiment stemming from it may be pushing down the market a little in a bit of a fait accompli. To the extent that this is happening, when the market eventually rises it could spring back even more after these fears diminish. Likely pushing it up from there would be existing long-term forces, including the digital revolution, which has not only driven the growth of tech stocks in recent decades but the overall market as well.

Sure/comma.lnum a recession is coming/period.lnum Recessions are like rain/colon.lnum One is always coming/period.lnum The question is: When?

For good measure, crisis predictors like to end their litany of negatives by mentioning the war in Ukraine. Although the war is profoundly unfortunate, with many civilian lives lost, it is not depressing stock values much, so it would be a mistake to sell stocks just because of the war. Although wars around the world do not usually drive the U.S. market down, investing toward the end of wars is usually a good move because the cessation of hostilities is often an upward catalyst. There may be some buying opportunities as the Ukraine war concludes. Of course, that may not be for months or even years.

Long-term forces
So powerful is the current sense of doom that investor sentiment stemming from it may be pushing down the market a little in a bit of a fait accompli. To the extent that this is happening, when the market eventually rises it could spring back even more after these fears diminish. Likely pushing it up from there would be existing long-term forces, including the digital revolution, which has not only driven the growth of tech stocks in recent decades but the overall market as well.

Sure/comma.lnum a recession is coming/period.lnum Recessions are like rain/colon.lnum One is always coming/period.lnum The question is: When?

For good measure, crisis predictors like to end their litany of negatives by mentioning the war in Ukraine. Although the war is profoundly unfortunate, with many civilian lives lost, it is not depressing stock values much, so it would be a mistake to sell stocks just because of the war. Although wars around the world do not usually drive the U.S. market down, investing toward the end of wars is usually a good move because the cessation of hostilities is often an upward catalyst. There may be some buying opportunities as the Ukraine war concludes. Of course, that may not be for months or even years.

Long-term forces
So powerful is the current sense of doom that investor sentiment stemming from it may be pushing down the market a little in a bit of a fait accompli. To the extent that this is happening, when the market eventually rises it could spring back even more after these fears diminish. Likely pushing it up from there would be existing long-term forces, including the digital revolution, which has not only driven the growth of tech stocks in recent decades but the overall market as well.

Sure/comma.lnum a recession is coming/period.lnum Recessions are like rain/colon.lnum One is always coming/period.lnum The question is: When?

For good measure, crisis predictors like to end their litany of negatives by mentioning the war in Ukraine. Although the war is profoundly unfortunate, with many civilian lives lost, it is not depressing stock values much, so it would be a mistake to sell stocks just because of the war. Although wars around the world do not usually drive the U.S. market down, investing toward the end of wars is usually a good move because the cessation of hostilities is often an upward catalyst. There may be some buying opportunities as the Ukraine war concludes. Of course, that may not be for months or even years.

Long-term forces
So powerful is the current sense of doom that investor sentiment stemming from it may be pushing down the market a little in a bit of a fait accompli. To the extent that this is happening, when the market eventually rises it could spring back even more after these fears diminish. Likely pushing it up from there would be existing long-term forces, including the digital revolution, which has not only driven the growth of tech stocks in recent decades but the overall market as well.
Something very interesting is happening right now: People are pulling back their spending. Retail sales are generally based on dollar figures for spending, whereas consumers tend to frame decisions more in terms of experiences like “should I go out to eat tonight or eat in?” And if you look — at least here in Dallas-Fort Worth — people are pulling back on these decisions. The price of gasoline is way up, median wages are lagging price increases, the stimulus has run its course and the one-way train of profiting from stocks and cryptocurrency has reversed. Restaurants that were packed last year are much less busy on weeknights and road traffic is slowing.

I was 13 when the crash happened in 2008 and I noticed many of the same things. It was almost eerie, but not quite as much as driving around in March 2020.

Looking around is an underrated way of gaining insight into the world. This strategy is much more effective outside of Manhattan, where so much of the financial industry is concentrated. Even going to a couple of Apple (AAPL) stores at different times and talking to people can provide great insight. Apple stores were extremely busy for years when the PE multiple was low, an obvious contradiction that resolved in favor of shareholders in the long run (by the way, I would not say the local Apple stores are very busy right now; if they are getting growth, it will have to be from digital services). Apple reports after the bell for those looking to place their bets. Amazon (AMZN) reports as well, giving a real-time window into the health of the consumer.

So we get the gross domestic product (GDP) report, and it shows a -1.4% annualized decrease in real GDP for the first quarter of 2022. GDP estimates are notorious for revisions, so we get a revised estimate in about a month. But this is kind of a big deal. Two quarters of negative GDP growth is the definition of a recession, so one more figure that comes in negative officially puts us in a recession. Given that we had $1.9 trillion in stimulus last year and nothing this year, I think our year-over-year comparisons will be hard to beat going forward as well.

**Is stimulus to blame?**

Many technicalities and offsetting factors make the official GDP report hard to parse. For example, the dollar is strong and supply is constrained at home, so Americans are importing more things. This affects GDP negatively but is not a big deal. What might be a big deal is whether companies were induced to overinvest and overorder inventory by looking at the huge demand from stimulus last year and assuming it would last.

Restoration Hardware (RH) makes cool furniture, but its recent earnings report was a shock to the downside as consumers cut their discretionary purchases after the stimulus ran out. Freight Waves, a popular transportation industry publication, came out with a forecast for a freight recession a few days after.

The current state of housing also is an enigma to rational observers. The housing market at least feltbalanced in 2019 and luxury homes were frankly hard to sell in many markets. Obviously, the pandemic set off a huge housing boom, but the underlying demographics create an interesting contradiction. By year-end, we will have built about 5 million homes since the start of the pandemic, but the U.S. population is only expected to have increased by 1.5 million or so since then. Maybe the net number of new homes is lower because of the roughly 200,000 to 300,000 teardowns of homes that happen in the U.S. per year — but with 2.5 people per household, the implication is that long-term fundamentals only justify about a million homes being built, whereas we are building five times as many.

These numbers are ballpark estimates, but by this lens the housing boom looks like more of a speculative frenzy exacerbated by pandemic-era policies and less of a demographic megatrend. If letting millions of people live rent free for 12 to 18 months and using the Fed to fix mortgage rates below 3% for the same period created an epic short-term housing squeeze, the implication from the true demographic demand is that we might be in for a bust going forward.

When the government fixes the price Continued on page 10
Zocdoc is the best way for you to reach new patients with no upfront fees or monthly subscription costs!

Take a free demo to see how we take the guesswork out of growing your practice.

Get started now.
of something too low, a shortage will inevitably result. But when the government stops fixing the prices as a return to normal, this will put people out of business who created business models around the fixed prices, as we saw in the savings and loan crisis in the 1980s and in the 2000s housing bust. Look at homebuilder stocks for what I mean — they are crashing while the housing market booms.

I seem to always pick on housing, but it is one of the sectors where the government has the most influence on economics — unlike the used car market where a boom-and-bust is just an annoyance, or the oil market where such things are common, expected and planned for.

One wonders whether companies of all kinds obtained too much inventory based on what people were spending in 2021 and will be stuck with surplus now that consumers are tapped out. One also wonders whether some of these companies hired too many workers based on the same assumptions and will need to let some go to balance the new supply-and-demand picture.

Nonfarm payroll numbers are still good
We are almost to the payroll peak hit in 2019, and I think we can count on at least a couple more months of good numbers. We are still getting over the shock from the pandemic — the friction in the labor markets means it takes time for workers to come back and be placed in jobs for which they are a good fit.

A question to ask is whether we have too few people working, about the right amount or too many. The mainstream answer is that we have a labor shortage, but companies have been remarkably flexible in dealing with this. (Have you used self-checkout lately?) Although I agree that there are still some shortages in the service industry, I think we might have too many people working in certain sectors of the economy — construction might be a prime candidate for a bust in 12 months.

The labor market is continuing to normalize, but as part of the process my guess is that rapid gains in nonfarm payrolls will turn to mild losses in the back half of this year. The Fed is in a tricky spot here if inflation stays high and the jobless rate starts to inch higher, but my guess is that as long as unemployment is below 5.5% to 6%, then getting inflation down will be more important.

The worst thing the government could do here is to print lots more money and start the cycle over, but I think they learned their lesson from the mistakes of the 1970s. Populism and the desire to attempt to print to prosperity seem to be on their way out — France and Slovenia just chose centrist candidates rather than populist ones, and inflation is arguably the No. 1 political issue in the upcoming U.S. midterms. The government did not rush to bail people out in 2008 the way it did in 2020, reminding traders that the “Fed put” is not universal.

Takeaways for Your portfolio
The market is forward looking, whereas economic data is backward looking. Looking around into the world can help bridge the gap. What I am writing about here is a big part of the reason the S&P 500 is down about 12% for the year. My guess is that we have 10% to 20% more downside from here, making this market worse than in the early 1990s but better than in 2008. Valuations now never got quite as crazy as they did in the late 1990s, but we could see a market with some of the same mechanisms of the tech bust of the early 2000s.

The future is uncertain and long-term investors do not necessarily need to sell to sidestep this, but I think you will be able to get stocks cheaper in six months than you can now. At the very least, I would try to make sure you own as much as possible of quality companies with real earnings and not speculative companies or companies with junk-rated credit. Consumer discretionary stocks and high-valuation companies are the riskiest right now, so avoid those if possible. Good luck to all. »
INTRODUCING APRETUDE: A NEW OPTION

NOW APPROVED

Apretude
cabotegravir 200 mg/mL
extended-release injectable suspension

Please see the following pages for Brief Summary of full Prescribing Information, including Boxed Warning, for APRETUDE.

LEARN MORE ABOUT APRETUDE AT
APRETUDEHCP.COM

Trademarks are owned by or licensed to the ViiV Healthcare group of companies. ©2022 ViiV Healthcare or licensor. CBTJRNA210001 January 2022. Produced in USA.
WARNING: RISK OF DRUG RESISTANCE WITH USE OF APRETUDE FOR HIV-1 PRE-EXPOSURE PROPHYLAXIS (PrEP) IN UNDIAGNOSED HIV-1 INFECTION

Individuals must be tested for HIV-1 infection prior to initiating APRETUDE or oral cabotegravir, and with each subsequent injection of APRETUDE, using a test approved or cleared by the FDA for the diagnosis of acute or primary HIV-1 infection. Drug-resistant HIV-1 variants have been identified with use of APRETUDE by individuals with undiagnosed HIV-1 infection. Do not initiate APRETUDE for HIV-1 PrEP unless negative infection status is confirmed. Individuals who become infected with HIV-1 while receiving APRETUDE for PrEP must transition to a complete HIV-1 treatment regimen.

CONTRAINDICATIONS

APRETUDE is contraindicated in individuals: with unknown or positive HIV-1 status; with previous hypersensitivity reaction to cabotegravir; receiving the coadministered drugs for which significant decreases in cabotegravir plasma concentrations may occur due to uridine diphosphate glucuronosyltransferase (UGT1A1) – Anticonvulsants: carbamazepine, oxcarbazepine, phenobarbital, phenytoin; Antimycobacterials: rifampin, rifapentine.

WARRIORS AND PRECAUTIONS

Comprehensive Management to Reduce the Risk of HIV-1 Infection: Use APRETUDE for HIV-1 PrEP to reduce the risk of HIV-1 infection as part of a comprehensive prevention strategy including adherence to the administration schedule and safer sex practices, including condoms, to reduce the risk of sexually transmitted infections (STIs). APRETUDE is not always effective in preventing HIV-1 acquisition. The time from initiation of APRETUDE for HIV-1 PrEP to maximal protection against HIV-1 infection is unknown. Risk for HIV-1 acquisition includes behavioral, biological, or epidemiologic factors including, but not limited to, condomless sex, past or current STIs, self-identified HIV risk, having sexual partners of unknown HIV-1 viremic status, or sexual activity in a high prevalence area or network. Counsel individuals on the use of other prevention measures (e.g., consistent and correct condom use; knowledge of partner(s)’ HIV-1 status, including viral suppression status; regular testing for STIs that can facilitate HIV-1 transmission). Inform individuals about and support their efforts in reducing sexual risk behavior. Use APRETUDE to reduce the risk of acquiring HIV-1 only in individuals confirmed to be HIV-1 negative. HIV-1 resistance substitutions may emerge in individuals with unknown HIV-1 infection who are taking only APRETUDE, because APRETUDE alone does not constitute a complete regimen for HIV-1 treatment; therefore, care should be taken to minimize the risk of initiating or continuing APRETUDE before confirming the individual is HIV-1 negative. Prior to initiating APRETUDE for HIV-1 PrEP, ask seronegative individuals about recent (in past month) potential exposure events (e.g., condomless sex or condom breaking during sex with a partner of unknown HIV-1 status or unknown viremic status, a recent STI), and evaluate for current or recent signs or symptoms consistent with acute HIV-1 infection (e.g., fever, fatigue, myalgia, skin rash). If recent (<1 month) exposures to HIV-1 are suspected or clinical symptoms consistent with acute HIV-1 infection are present, use a test approved or cleared by the FDA as an aid in the diagnosis of acute or primary HIV-1 infection. When using APRETUDE for HIV-1 PrEP, HIV-1 testing should be repeated prior to each injection and upon diagnosis of any other STIs. If an HIV-1 test indicates possible HIV-1 infection, or if symptoms consistent with acute HIV-1 infection develop following an exposure event, additional HIV testing to determine HIV-1 status is needed. If an individual has confirmed HIV-1 infection, then the individual must be transitioned to a complete HIV-1 treatment regimen. Counsel HIV-1 uninfected individuals to strictly adhere to the recommended dosing and testing schedule for APRETUDE in order to reduce the risk of HIV-1 acquisition and the potential development of resistance. Some individuals, such as adolescents, may benefit from frequent visits and counseling to support adherence to the dosing and testing schedule. Potential Risk of Resistance with APRETUDE: There is a potential risk of developing resistance to APRETUDE if an individual acquires HIV-1 either before or while taking APRETUDE or following discontinuation of APRETUDE. To minimize this risk, it is essential to clinically reassess individuals for risk of HIV-1 acquisition and to test before each injection to confirm HIV-1 negative status. Individuals who are confirmed to have HIV-1 infection must transition to a complete HIV-1 treatment regimen. Alternative forms of PrEP should be considered following discontinuation of APRETUDE for those individuals at continuing risk of HIV-1 acquisition and initiated within 2 months of the final injection of APRETUDE.

Long-Acting Properties and Potential Associated Risks with APRETUDE: Residual concentrations of cabotegravir may remain in the systemic circulation of individuals for prolonged periods (up to 12 months or longer). It is important that individuals select individuals who agree to the required every-2-month injection dosing schedule because non-adherence to every-2-month injections or missed doses could lead to HIV-1 acquisition and development of resistance. Healthcare providers should take the prolonged-release characteristics of cabotegravir into consideration when APRETUDE is prescribed. Hypersensitivity Reactions: Serious or severe hypersensitivity reactions have been reported in association with other integrase inhibitors and could occur with APRETUDE. Administration of cabotegravir oral lead-in dosing was used in clinical studies to help identify participants who may be at risk of a hypersensitivity reaction. Remain vigilant and discontinue APRETUDE if a hypersensitivity reaction is suspected. Discontinue APRETUDE immediately if signs or symptoms of hypersensitivity reactions develop (including, but not limited to, severe rash, or rash accompanied by fever, general malaise, fatigue, muscle or joint aches, blisters, mucosal involvement [oral blisters or lesions], conjunctivitis, facial edema, hepatitis, eosinophilia, angioedema, difficulty breathing). Clinical status, including liver transaminases, should be monitored and appropriate therapy initiated. For information regarding long-acting properties or previous section. Hepatotoxicity: Hepatotoxicity has been reported in a limited number of individuals receiving cabotegravir with or without known pre-existing hepatic disease or identifiable risk factors. Clinical and laboratory monitoring should be considered and APRETUDE should be discontinued if hepatotoxicity is suspected and individuals managed as clinically indicated. For information regarding long-acting properties of APRETUDE, see previous section. Depressive Disorders: Depressive disorders (including depression, depressed mood, major depression, persistent depressive disorder, suicide ideation or attempt) have been reported with APRETUDE. Promptly evaluate individuals with depressive symptoms to assess whether the symptoms are related to APRETUDE and to determine whether the risks of continued therapy outweigh the benefits. Risk of Reduced Drug Concentration of APRETUDE Due to Drug Interactions: The concomitant use of APRETUDE and other drugs may result in reduced drug concentration of APRETUDE. Drug Concentration of APRETUDE Due to Drug Interactions:

Some of the more commonly reported adverse events are:

The most commonly reported ISRs (all causality and grades) in at least 1% of participants are:

- Headache 4% 3% 12% 13%
- Pyrexia 4% 2% 3% 3%
- Eczema 1% 2% 3% 3%
- Flatulence 1% 1% <1% <1%

Dermatologic: Eczema (n = 2,285) and rash (n = 774) were approximately equal in incidence and highest in severity among ISRs reported after injection of APRETUDE. The incidence of rash was reduced with subsequent injections.

The most commonly reported treatment-related adverse events are:

- Sleep disorders includes insomnia, abnormal dreams.
- Weight increase and weight loss (regardless of severity) occurred in <1% of participants receiving APRETUDE in either HPTN 083 or HPTN 084. The median time on blinded study product in these trials was 48 weeks.

The incidence of pyrexia (including pyrexia, feeling hot, chills, influenza-like illness) was 12% in participants receiving APRETUDE. This was approximately equal in incidence and highest in severity among treatment-related adverse events reported after injection of APRETUDE.

The most commonly reported laboratory abnormalities are:

- The most common test abnormalities (Grade 3 or 4 post-baseline maximum toxicity laboratory test) in participants receiving APRETUDE were lipids, AST, ALT, ALP, GGT, and bilirubin.

Adverse Effects of APRETUDE: The most common treatment-related adverse events associated with APRETUDE were:

- The most common adverse events regardless of severity reported in at least 1% of participants in HPTN 083 or HPTN 084 or HPTN 084 are presented in Table 4. In HPTN 083, 6% of participants in the group receiving APRETUDE intramuscular injection every 2 months and 4% of participants receiving oral TRUVADA (emtricitabine (FTC) and tenofovir disoproxil fumarate (TDF)) once daily discontinued due to adverse events (all causality). Non-injection-site-associated adverse events leading to discontinuation and occurring in >1% of participants were:

- In HPTN 084, 1% of participants receiving APRETUDE and 1% of participants receiving TRUVADA discontinued due to adverse events. The most commonly reported adverse event (all causality) leading to discontinuation was increased alanine aminotransferase (<1% with APRETUDE and TRUVADA). The side-by-side tabulation is to simplify presentation; direct comparison across trials should not be made due to differing trials.

ADVERSE REACTIONS

Clinical Trials Experience: Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared with rates in the clinical trials of another drug and may not reflect rates observed in practice. Clinical Trials Experience in Adults:

The safety assessment of APRETUDE is based on the analysis of data from 2 international, multicenter, double-blind trials, HPTN 083 and HPTN 084. Adverse reactions were reported while on blinded study product following exposure to APRETUDE extended-release injectable suspension and oral cabotegravir tablets as oral lead-in. The median time on blinded study product in HPTN 083 was 65 weeks and 2 days (range: 1 day to 156 weeks and 1 day), with a total exposure on cabotegravir of 3,231 person-years. The median time on blinded study product in HPTN 084 was 64 weeks and 1 day (range: 1 day to 153 weeks and 1 day), with a total exposure on cabotegravir of 2,009 person-years. The most common adverse reactions regardless of severity reported in at least 1% of participants in HPTN 083 or HPTN 084 are presented in Table 4. In HPTN 083, 6% of participants in the group receiving APRETUDE intramuscular injection every 2 months and 4% of participants receiving oral TRUVADA (emtricitabine (FTC) and tenofovir disoproxil fumarate (TDF)) once daily discontinued due to adverse events (all causality). Non-injection-site-associated adverse events leading to discontinuation and occurring in >1% of participants were:

- In HPTN 084, 1% of participants receiving APRETUDE and 1% of participants receiving TRUVADA discontinued due to adverse events. The most commonly reported adverse event (all causality) leading to discontinuation was increased alanine aminotransferase (<1% with APRETUDE and TRUVADA).
Once Daily

TRUVADA (n = 2,081); HPTN 084, APRETUDE (n = 1,519) and TRUVADA (n = 1,516).

The most frequent adverse reactions associated with the intramuscular administration of APRETUDE in HPTN 084 were ISRs. After 13,068 injections, 1,171 ISRs were reported. Of the 1,519 participants who received at least one injection of APRETUDE, 578 (38%) participants experienced at least one ISR. No participants discontinued APRETUDE because of ISRs. Among the participants who received APRETUDE and experienced at least one ISR, the maximum severity of reactions was mild (Grade 1) in 66% of participants, moderate (Grade 2) in 34% of participants, and severe (Grade 3) in less than 1% of participants. The median duration of overall ISR events was 8 days. The proportion of participants reporting ISRs at each visit and the severity of the ISRs generally decreased over time. The most commonly reported ISRs (all causality and grades) at their last visit are presented in Table 5. The most frequent adverse reactions associated

with the intramuscular administration of APRETUDE in HPTN 084 were ISRs. After 13,068 injections, 1,171 ISRs were reported. Of the 1,519 participants who received at least one injection of APRETUDE, 578 (38%) participants experienced at least one ISR. No participants discontinued APRETUDE because of ISRs. Among the participants who received APRETUDE and experienced at least one ISR, the maximum severity of reactions was mild (Grade 1) in 66% of participants, moderate (Grade 2) in 34% of participants, and severe (Grade 3) in less than 1% of participants. The median duration of overall ISR events was 8 days. The proportion of participants reporting ISRs at each visit and the severity of the ISRs generally decreased over time. The most commonly reported ISRs (all causality and grades) at their last visit are presented in Table 5. The most frequent adverse reactions associated

with the intramuscular administration of APRETUDE in HPTN 084 were ISRs. After 13,068 injections, 1,171 ISRs were reported. Of the 1,519 participants who received at least one injection of APRETUDE, 578 (38%) participants experienced at least one ISR. No participants discontinued APRETUDE because of ISRs. Among the participants who received APRETUDE and experienced at least one ISR, the maximum severity of reactions was mild (Grade 1) in 66% of participants, moderate (Grade 2) in 34% of participants, and severe (Grade 3) in less than 1% of participants. The median duration of overall ISR events was 8 days. The proportion of participants reporting ISRs at each visit and the severity of the ISRs generally decreased over time. The most commonly reported ISRs (all causality and grades) at their last visit are presented in Table 5. The most frequent adverse reactions associated

with the intramuscular administration of APRETUDE in HPTN 084 were ISRs. After 13,068 injections, 1,171 ISRs were reported. Of the 1,519 participants who received at least one injection of APRETUDE, 578 (38%) participants experienced at least one ISR. No participants discontinued APRETUDE because of ISRs. Among the participants who received APRETUDE and experienced at least one ISR, the maximum severity of reactions was mild (Grade 1) in 66% of participants, moderate (Grade 2) in 34% of participants, and severe (Grade 3) in less than 1% of participants. The median duration of overall ISR events was 8 days. The proportion of participants reporting ISRs at each visit and the severity of the ISRs generally decreased over time. The most commonly reported ISRs (all causality and grades) at their last visit are presented in Table 5. The most frequent adverse reactions associated

with the intramuscular administration of APRETUDE in HPTN 084 were ISRs. After 13,068 injections, 1,171 ISRs were reported. Of the 1,519 participants who received at least one injection of APRETUDE, 578 (38%) participants experienced at least one ISR. No participants discontinued APRETUDE because of ISRs. Among the participants who received APRETUDE and experienced at least one ISR, the maximum severity of reactions was mild (Grade 1) in 66% of participants, moderate (Grade 2) in 34% of participants, and severe (Grade 3) in less than 1% of participants. The median duration of overall ISR events was 8 days. The proportion of participants reporting ISRs at each visit and the severity of the ISRs generally decreased over time. The most commonly reported ISRs (all causality and grades) at their last visit are presented in Table 5. The most frequent adverse reactions associated

with the intramuscular administration of APRETUDE in HPTN 084 were ISRs. After 13,068 injections, 1,171 ISRs were reported. Of the 1,519 participants who received at least one injection of APRETUDE, 578 (38%) participants experienced at least one ISR. No participants discontinued APRETUDE because of ISRs. Among the participants who received APRETUDE and experienced at least one ISR, the maximum severity of reactions was mild (Grade 1) in 66% of participants, moderate (Grade 2) in 34% of participants, and severe (Grade 3) in less than 1% of participants. The median duration of overall ISR events was 8 days. The proportion of participants reporting ISRs at each visit and the severity of the ISRs generally decreased over time. The most commonly reported ISRs (all causality and grades) at their last visit are presented in Table 5. The most frequent adverse reactions associated

with the intramuscular administration of APRETUDE in HPTN 084 were ISRs. After 13,068 injections, 1,171 ISRs were reported. Of the 1,519 participants who received at least one injection of APRETUDE, 578 (38%) participants experienced at least one ISR. No participants discontinued APRETUDE because of ISRs. Among the participants who received APRETUDE and experienced at least one ISR, the maximum severity of reactions was mild (Grade 1) in 66% of participants, moderate (Grade 2) in 34% of participants, and severe (Grade 3) in less than 1% of participants. The median duration of overall ISR events was 8 days. The proportion of participants reporting ISRs at each visit and the severity of the ISRs generally decreased over time. The most commonly reported ISRs (all causality and grades) at their last visit are presented in Table 5. The most frequent adverse reactions associated

with the intramuscular administration of APRETUDE in HPTN 084 were ISRs. After 13,068 injections, 1,171 ISRs were reported. Of the 1,519 participants who received at least one injection of APRETUDE, 578 (38%) participants experienced at least one ISR. No participants discontinued APRETUDE because of ISRs. Among the participants who received APRETUDE and experienced at least one ISR, the maximum severity of reactions was mild (Grade 1) in 66% of participants, moderate (Grade 2) in 34% of participants, and severe (Grade 3) in less than 1% of participants. The median duration of overall ISR events was 8 days. The proportion of participants reporting ISRs at each visit and the severity of the ISRs generally decreased over time. The most commonly reported ISRs (all causality and grades) at their last visit are presented in Table 5. The most frequent adverse reactions associated

with the intramuscular administration of APRETUDE in HPTN 084 were ISRs. After 13,068 injections, 1,171 ISRs were reported. Of the 1,519 participants who received at least one injection of APRETUDE, 578 (38%) participants experienced at least one ISR. No participants discontinued APRETUDE because of ISRs. Among the participants who received APRETUDE and experienced at least one ISR, the maximum severity of reactions was mild (Grade 1) in 66% of participants, moderate (Grade 2) in 34% of participants, and severe (Grade 3) in less than 1% of participants. The median duration of overall ISR events was 8 days. The proportion of participants reporting ISRs at each visit and the severity of the ISRs generally decreased over time. The most commonly reported ISRs (all causality and grades) at their last visit are presented in Table 5. The most frequent adverse reactions associated
Table 6. Laboratory Abnormalities (Grades 3 to 4) in ≥1% of Participants in Either HPTN 083 or HPTN 084

<table>
<thead>
<tr>
<th>Laboratory Parameter</th>
<th>HPTN 083</th>
<th>HPTN 084</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>APRETEDE Every 2 Months (n = 2,281)</td>
<td>TRUVADA Once Daily (n = 2,285)</td>
</tr>
<tr>
<td>ALT (≥5.0 x ULN)</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>AST (≥5.0 x ULN)</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Creatine phosphokinase (≥10.0 x ULN)</td>
<td>15%</td>
<td>14%</td>
</tr>
<tr>
<td>Lipase (≥3.0 x ULN)</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Creatinine (≥1.8 x ULN or increase to ≥1.5 x baseline)</td>
<td>3%</td>
<td>3%</td>
</tr>
</tbody>
</table>

ALT = Alanine transaminase, ULN = Upper limit of normal, AST = Aspartate aminotransferase.

Serum Lipids: Changes from baseline to Month 15 in total cholesterol, HDL cholesterol, LDL cholesterol, triglycerides, and total cholesterol to HDL ratio in HPTN 083 and HPTN 084 are presented in Table 7.

Table 7. Fasting Lipid Values, Median Change from Baseline* at Week 57, Reported in HPTN 083 and HPTN 084

<table>
<thead>
<tr>
<th>HPTN 083</th>
<th>HPTN 084</th>
</tr>
</thead>
<tbody>
<tr>
<td>APRETEDE</td>
<td>TRUVADA</td>
</tr>
<tr>
<td>Total cholesterol (mg/dL)</td>
<td>+1.0</td>
</tr>
<tr>
<td>LDL cholesterol (mg/dL)</td>
<td>+1.0</td>
</tr>
<tr>
<td>HDL cholesterol (mg/dL)</td>
<td>-0.2</td>
</tr>
<tr>
<td>Triglycerides (mg/dL)</td>
<td>+2.7</td>
</tr>
<tr>
<td>Total cholesterol: HDL cholesterol ratio</td>
<td>+0.1</td>
</tr>
</tbody>
</table>

*Nearly 60% of participants with baseline data available had Week 57 data available in both arms of both trials. Within each trial, baseline values were comparable among participants receiving APRETEDE and TRUVADA.

Clinical Trials Experience in Adolescents: In adolescents receiving APRETEDE for HIV-1 PrEP, the safety data were comparable to the safety data reported in adults receiving APRETEDE for HIV-1 PrEP.

DRUG INTERACTIONS

Use of Other Antiretroviral Drugs after Discontinuation of APRETEDE: Residual concentrations of cabotegravir may remain in the systemic circulation of individuals for prolonged periods (up to 12 months or longer). These residual concentrations are not expected to affect the exposures of antiretroviral drugs that are initiated after discontinuation of APRETEDE. Potential for Other Drugs to Affect APRETEDE: Cabotegravir is primarily metabolized by UGT1A1 with some contribution from UGT1A9. Drugs that are strong inducers of UGT1A1 or UGT1A9 are expected to decrease cabotegravir plasma concentrations; therefore, coadministration of APRETEDE with these drugs is contraindicated. Established and Other Potentially Significant Drug Interactions: Information regarding potential drug interactions with cabotegravir is provided below. These recommendations are based on either drug interaction trials following oral administration of cabotegravir or predicted interactions due to the expected magnitude of the interaction. The information below includes potentially significant interactions but is not all inclusive.

- Anticonvulsants: Carbamazepine, oxcarbazepine, phenobarbital, phenytoin – coadministration is contraindicated with APRETEDE due to potential for significant decreases in plasma concentration of APRETEDE
- Antimycobacterials: Rifampin, rifampin-rifapentine – coadministration is contraindicated with APRETEDE due to potential for significant decreases in plasma concentration of APRETEDE
- Antimycobacterials: Rifabutin – when rifabutin is started before or concomitantly with the first initiation injection of APRETEDE, the recommended dosing of APRETEDE is one 600-mg (3-mL) injection, followed 2 weeks later by a second 600-mg (3-mL) initiation injection and monthly thereafter while on rifabutin. When rifabutin is started at the time of the second initiation injection or later, the recommended dosing schedule of APRETEDE is 600 mg (3 mL) monthly while on rifabutin. After stopping rifabutin, the recommended dosing schedule of APRETEDE is 600 mg (3 mL) every 2 months

Success of APRETEDE is subject to successful induction therapy. When initiating APRETEDE with an oral lead-in dose of efavirenz, lenvadex, or CABENUVA, the use of antiretroviral agents that are highly bound to plasma proteins, it is unlikely that it will be significantly removed by dialysis. Based on studies with oral cabotegravir, no dosage adjustment of cabotegravir is provided below. Studies or clinical experience with oral cabotegravir have shown that the exposure at the RHD) was not associated with delayed parturition or neonatal death. In a rat pre- and postnatal development study, cabotegravir was administered orally to pregnant rabbits at 0, 30, 500, or 2,000 mg/kg/day from Gestation Days 7 to 19. No drug-related fetal toxicities were observed. In a rat pre- and postnatal development study, cabotegravir was administered orally to pregnant rabbits at 0, 30, 500, or 2,000 mg/kg/day from Gestation Days 7 to 19. No drug-related fetal toxicities were observed. No drug-related fetal toxicities were observed. In a rat pre- and postnatal development study, cabotegravir was administered orally to pregnant rabbits at 0, 30, 500, or 2,000 mg/kg/day from Gestation Days 7 to 19. No drug-related fetal toxicities were observed.

Consult the full Prescribing Information for potential drug interactions; this list is not all inclusive.

USE IN SPECIFIC POPULATIONS

Pregnancy: Pregnancy Exposure Registry: There is a pregnancy exposure registry that monitors pregnancy outcomes in women exposed to APRETEDE during pregnancy. Healthcare providers are encouraged to register individuals by calling the Antiretroviral Pregnancy Registry (APR) at 1-800-258-4263. Risk Summary: There are insufficient human data on the use of APRETEDE during pregnancy to adequately assess a drug-associated risk of birth defects and miscarriage. While there are insufficient human data to assess the risk of neural tube defects (NTDs) with exposure to APRETEDE during pregnancy, NTDs were found in a rat pre- and postnatal development study at ≥28 times the exposure at the recommended human dose (RHD). No evidence of adverse developmental outcomes was observed with oral cabotegravir in rats or rabbits (≥28 times or similar to the exposure at the RHD).
BRIEF SUMMARY for APRETUDE (cabotegravir extended-release injectable suspension), for intramuscular use (cont’d)

respectively) given during organogenesis (see Data). Clinical Considerations: Cabotegravir is detected in systemic circulation for up to 12 months or longer after discontinuing injections of APRETUDE; therefore, consideration should be given to the potential for fetal exposure during pregnancy. Data: Human Data: Data from a birth outcome surveillance study in Botswana showed that dolatregravir, another integrase inhibitor, was associated with increased risk of NTDs when administered at the time of conception and in early pregnancy. Data from clinical trials are insufficient to address the risk with cabotegravir. Animal Data: Cabotegravir was administered orally to pregnant rats at 0, 0.5, 5, or 1,000 mg/kg/day from 15 days before cohabitation, during cohabitation, and from Gestation Days 0 to 17. There were no effects on fetal viability when fetuses were delivered by caesarean, although a minor decrease in fetal body weight was observed at 1,000 mg/kg/day (>28 times the exposure in humans at the RHD). No drug-related fetal toxicities were observed at 5 mg/kg/day (approximately 13 times the exposure in humans at the RHD), and no drug-related fetal malformations were observed at any dose. Cabotegravir was administered orally to pregnant rabbits at 0, 30, 500, or 2,000 mg/kg/day from Gestation Days 7 to 19. No drug-related fetal toxicities were observed at 2,000 mg/kg/day (approximately 0.7 times the exposure in humans at the RHD). In a rat pre- and postnatal development study, cabotegravir was administered orally to pregnant rats at 0, 0.5, 5, or 1,000 mg/kg/day from Gestation Day 6 to Lactation Day 21. A delay in the onset of parturition and increases in the number of stillbirths and neonatal deaths by Lactation Day 4 were observed at 1,000 mg/kg/day (>28 times the exposure in humans at the RHD); there were no alterations to growth and development of surviving offspring. In a cross-fostering study, similar incidences of stillbirths and early postnatal deaths were observed when rat pups born to cabotegravir-treated mothers were nursed from birth by control mothers. There was no effect on neonatal survival of control pups nursed from birth by cabotegravir-treated mothers. A lower dose of 5 mg/kg/day (13 times the exposure at the RHD) was not associated with delayed parturition or neonatal mortality in rats. Studies in pregnant rats showed that cabotegravir crosses the placenta and can be detected in fetal tissue. Lactation: Risk Summary: It is not known if cabotegravir is present in human breast milk, affects human milk production, or has effects on the breastfed infant. When administered to lactating rats, cabotegravir was present in milk (see Data). If cabotegravir is present in human milk, residual exposures may remain for 12 months or longer after the last injection has been administered. Because of detectable cabotegravir concentrations in systemic circulation for up to 12 months or longer after discontinuing injections of APRETUDE, it is recommended that women breastfeed only if the expected benefit justifies the potential risk to the infant. Data: Animal Data: Animal lactation studies with cabotegravir have not been conducted. However, cabotegravir was detected in the plasma of nursing pups on Lactation Day 10 in the rat pre- and postnatal development study. Pediatric Use: The safety and effectiveness of APRETUDE for HIV-1 PrEP in at-risk adolescents weighing at least 35 kg is supported by data from 2 adequate and well-controlled trials of APRETUDE for HIV-1 PrEP in adults with additional safety and pharmacokinetic data from studies in HIV-1 infected adults who were administered CABENUVA, and in HIV-1 infected pediatric subjects who were administered separate components of CABENUVA in addition to their current antiretroviral therapy. APRETUDE for HIV-1 PrEP is being evaluated in 2 open-label multicenter clinical trials in adolescent individuals. Fifty-nine adolescents have been enrolled. Of these, 54 adolescent participants received one or more injections. In adolescents receiving APRETUDE for HIV-1 PrEP, the safety data were comparable to the safety data reported in adults receiving APRETUDE for HIV-1 PrEP. While using APRETUDE, HIV-1 testing should be conducted prior to initiating APRETUDE (with or without an oral lead-in with oral cabotegravir) and prior to each injection of APRETUDE. Adolescents may benefit from more frequent visits and counseling to support adherence to the dosing and testing schedule. The safety, efficacy, and pharmacokinetics of APRETUDE in pediatric participants younger than 12 years of age or weighing <35 kg have not been established. Geriatric Use: No dose adjustment is required in elderly individuals. There are limited data available on the use of APRETUDE in individuals aged 65 years and older. In general, caution should be exercised in administration of APRETUDE in elderly individuals reflecting greater frequency of decreased hepatic, renal, or cardiac function and of concomitant disease or other drug therapy. Renal Impairment: Based on studies with oral cabotegravir, no dosage adjustment of APRETUDE is necessary for individuals with mild (creatinine clearance >60 to <90 mL/min) or moderate renal impairment (creatinine clearance 30 to <60 mL/min). In individuals with severe renal impairment (creatinine clearance 15 to <30 mL/min) or end-stage renal disease (creatinine clearance <15 mL/min), increased monitoring for adverse effects is recommended. In individuals with end-stage renal disease not on dialysis, effects on the pharmacokinetics of cabotegravir are unknown. As cabotegravir is >99% protein bound, dialysis is not expected to alter exposures of cabotegravir. Hepatic Impairment: Based on studies with oral cabotegravir, no dosage adjustment of APRETUDE is necessary for individuals with mild or moderate hepatic impairment (Child-Pugh A or B). The effect of severe hepatic impairment (Child-Pugh C) on the pharmacokinetics of cabotegravir is unknown.

OVERDOSAGE

There is no known specific treatment for overdose with APRETUDE. If overdose occurs, monitor the individual and apply standard supportive treatment as required as well as observation of the clinical status of the individual. As APRETUDE is highly bound to plasma proteins, it is unlikely that it will be significantly removed by dialysis. Consider the prolonged exposure to APRETUDE following an injection when assessing treatment needs and recovery.
AFTER MORE THAN TWO YEARS OF COVID-19, the United States must transform its primary care system to deliver better care at lower cost and to provide greater satisfaction for doctors, medical staff and patients.

The pandemic was seen by many as an opportunity to fix primary care. Two years later, the problems that existed before COVID-19 — and that were in some ways exacerbated by it — will continue to worsen without intervention, according to physicians and health policy experts interviewed by Medical Economics®.

The problems are as familiar as they are intractable. Primary care remains underfunded in proportion to its importance to the health care system. Continued reliance on fee-for-service payments means doctors remain strapped for time because they need high patient volumes to earn revenue. Consequently, patient visits are too short, schedules are too full and physicians are burned out. Workforce shortages are robbing doctors of time needed to focus on patient health. More spending
is needed to recruit new doctors to primary care specialties.

All of this has contributed to widespread burnout among primary care physicians — 94% said they have experienced symptoms of burnout, according to the 2021 Medical Economics® Physician Burnout survey. Many are questioning their career choices. One-third of internists said they would choose a new specialty if they could, according to the 2022 Medical Economics® Physician Report.

But there also remains an opportunity to fix what ails the system. “Things are open as much as they have been in a century for primary care to improve its funding, its training, its sense of professionalism in the U.S. health care system,” says Rebecca Etz, Ph.D., a professor of family medicine and population health at Virginia Commonwealth University in Richmond.

“But it could also fail,” Etz adds. “And I don’t think people understand that this is a platform that is too critical to collapse.”

**Follow the money**

The root cause of primary care’s problems is “a misalignment of payment” between funding on a fee-for-service basis and the ability to provide proactive, population-based care in communities, says Asaf Bitton, M.D., M.P.H., executive director of Ariadne Labs, a collaborative health systems innovation center at Brigham and Women’s Hospital and the Harvard T.H. Chan School of Public Health in Boston.

Bitton was a member of the National Academies of Sciences, Engineering, and Medicine (NASEM) committee that in May 2021 published “Implementing High-Quality Primary Care: Rebuilding the Foundation of Health Care,” a 428-page study outlining the recent history of primary care in the United States and ways to bolster it.

One of its recommendations is plain: Primary care accounts for 35% of health care visits and gets 5% of health care expenditures. In other words, pay primary care doctors adequately for the services they provide and on par with specialists, says Timothy Hoff, Ph.D., professor of management, health care systems and health policy at Northeastern University in Boston.

“Things are open as much as they have been in a century for primary care to improve its funding, its training, its sense of professionalism in the U.S. health care system. But it could also fail.”

—Rebecca Etz, Ph.D., professor of family medicine and population health, Virginia Commonwealth University

How do we go about fixing this system? Some physician groups call for single-payer models, such as Medicare for All, that if enacted would blow up the U.S. health payment system as we know it. There is very little institutional support for such a change.

The NASEM report recommends creating a societal goal to direct a greater proportion of health care spending to primary care. It also examines options for dealing with primary care payments and recommends a shift away from fee-for-service to a hybrid model with capitation to pay doctors regular, fixed amounts per patient — in other words, value-based payments.

**Value-based payment initiatives are not new — the latest major overhaul came in 2015 when Congress passed the Medicare Access and CHIP Reauthorization Act (MACRA), which created several new models including the Merit-based Incentive Payment System (MIPS) and the Alternative Payment Model system.**

The goal of MACRA was to incentivize providers to move away from MIPS, a combination of fee-for-service with some value-based incentives/penalties, toward alternative payment models, according to an analysis in a July 2021 Health Affairs blog. But for many reasons, the MACRA programs have not...
“Cardiologists and neurologists are really good at advocating for the things they need. I would argue primary care should be just as good or better.

We offer a huge value proposition for the rest of the health care system.”

—Asaf Bitton, M.D., M.P.H., executive director, Ariadne Labs

effectively moved providers toward accountable care organizations and participation is declining. The authors of the Health Affairs analysis call for Congress to take up legislation to fix MACRA. “Congress has an opportunity to harness the significant energy behind payment reform and channel it into clear and strong payment incentives for providers to improve the quality of care they deliver and manage total costs of care,” they write.

Instead, there is little that individual physicians and practices can do to impact the conversation around reimbursement rates and value-based care. Some are taking matters into their own hands by opting for insuranceless practices, using models sometimes described as direct care or concierge or membership medicine.

Erika Bliss, M.D., a primary care physician in Seattle, uses a direct care business model with patients paying monthly fees and no billing of insurance at the primary care level, she says. Apart from a revenue stream, direct care allowed Bliss to be flexible, using telehealth for quick responses to patients during the pandemic lockdowns. With a constant stream of referrals, her practice grew so much that she closed to new patients during the pandemic.

“Really, a lot of what we were doing was just monitoring the situation and giving people information,” Bliss says. Other patients and physicians struggled to connect, “and a lot of practices closed or had to hire a bunch of people because they couldn’t pay their bills.”

**Time for treatment**

Greater investment in primary care would allow primary care physicians to hire more staff, which would allow doctors to spend more time with patients, says Emily Godfrey, M.D., M.P.H., a family physician and OB-GYN specialist in Seattle.

Because primary care is reimbursed at a lower rate than specialists, primary care clinics are forced to have a greater number of shorter visits to meet overhead costs, Godfrey says. This leads to primary care physicians having a greater administrative burden than specialists, which perpetuates burnout among primary care physicians and proportionally fewer medical school graduates going into primary care.

She describes the difference between a 40-minute specialty examination of one patient issue and trying to address four or five patient issues in a 15-minute appointment. “Because 15 minutes of our time is worth less than 15 minutes of a specialist’s time, we have to see more patients to earn the same amount of revenue as a specialty clinic,” Godfrey says.

As a result, it’s not possible to address the range of issues patients have and in a manner that addresses their issues in the context of their families and communities. Often these patients have to come back for multiple visits to get their issues addressed, she says. And more patient appointments mean a greater need for staff.

Some financial help for staff could be coming. In November 2021, CMS announced the 2022 Medicare Physician Fee Schedule will update its clinical labor pricing rates for the first time since 2002. Essentially, Medicare payments have not kept up with the true cost of clinical staffing, says Sterling N. Ransone Jr., M.D., FAAFP, the president of the American Academy of Family Physicians (AAFP) and a family physician in Deltaville, Virginia.

“We’re using 20-year-old data to pay me in order to pay my staff, and prices have gone up quite a bit since then,” Ransone says. More money for physicians to pay for nurses and medical assistants can improve patient care while easing the financial strain on primary care practices, he says.

**Help wanted**

The health care workforce was strained even before the worst times of COVID-19. For some, the pandemic became the tipping point.

In March 2020, the Larry A. Green Center — a Richmond, Virginia-based institute that studies primary care — began a regular national survey that became a running tally of pandemic stress on physicians and their staff and how it has affected patient care. Two years later, 62% of responding clinicians say they know of other doctors who retired early or quit during the pandemic, 29% say they...
have personal knowledge of practices that closed and 25% reported they expect to leave primary care within the next three years.

“It’s a bad situation,” says Etz, a co-author of the NASEM report. “These people are really struggling. We really need to figure out both how to increase the workforce that we have in primary care and how to support the current workforce that is suffering historic highs of mental exhaustion and burnout and historic lows of resilience.”

When physicians close their practices, other doctors take on more patients but resources are stretched even thinner. The United States has about one-third of its medical workforce in primary care but that number needs to be about 40% of its medical workforce to create a basic, well-functioning health care system, Etz says.

Primary care cannot necessarily rely on a steady stream of new physicians. Medical schools are only sending about 12% to 15% of graduates to primary care — not enough people to replenish the health care system, Etz says. The situation likely will get worse. Last year the Association of American Medical Colleges projected a national shortage of between 17,800 and 48,000 primary care physicians by 2034.

There are policy solutions that could help. Physician groups applauded in December 2021 when CMS announced 1,000 new Medicare-funded physician residency slots in qualifying hospitals. They will be phased in with about 200 a year over the next five years, targeted for hospitals with training programs and the greatest need for physicians. It was the largest increase in Medicare-funded residency slots in more than 25 years, according to CMS.

Those slots need to focus on primary care, “the bread and butter, which is foundational in medicine,” not subspecialties, says George M. Abraham, M.D., M.P.H., MACP, immediate past president of the American College of Physicians and an internist in Worcester, Massachusetts, describes a patient visit combining technology and team-based care. For example, an office assistant or nurse could make a pre-visit call, updating details such as vaccinations and current prescriptions. Time with the physician would be “really spent in that face-to-face encounter to address the specific issues” of the patient. A follow-up call by a physician or staff would ensure the patient comprehended any instructions, gathering any needed data. It would make a huge difference, quantitatively and qualitatively, in the completeness of a visit, Abraham says. “However, all that comes with extra work time and personnel, all of which add cost,” he says. “And so unless our system, our reimbursement system, changes to accommodate those sorts of concepts, we wouldn’t be able to enhance the quality of care to the extent that we would like it to be.”

physicians could combine teamwork and technology to improve patient care across the United States. Patients would benefit from a larger team-based approach with primary care physicians collaborating with their peers and other providers, including nurse practitioners and physicians’ assistants, mental health professionals, social workers, pharmacists and others.

“I think when you’re working together, we’ll be able to accomplish a lot more in terms of a more efficient, more cohesive, more cost-effective way in managing our patients,” says Rob Pedowitz, D.O., ACOP, chairman of the practice management committee of the American College of Osteopathic Family Physicians.

A dream goal would be to house such a team in one place, and that happens in some health care systems around the country. If a health care team cannot be in one room or building, telehealth could be a tool that maximizes time for physicians and staff and that serves patients by improving communication among primary care doctors and specialists – a real need, Pedowitz says.

“In a rural area, one of the beauties that we have today is being able to connect to others,” Pedowitz says. “So via telehealth and technology, that person in a rural community has their community extended far greater by being able to have connections to physicians and specialists and pharmacists that may not be physically on site but can be just a click or a phone call away. And I think that’s really where we need to go.” Physicians are hoping the federal Centers for Medicare & Medicaid Services, commercial payers and states will permanently approve the use of telehealth and pay doctors for virtual visits on par with in-person visits, Pedowitz says.

George M. Abraham, M.D., M.P.H., MACP, immediate past president of the American College of Physicians, and an internist in Worcester, Massachusetts, describes a patient visit combining technology and team-based care. For example, an office assistant or nurse could make a pre-visit call, updating details such as vaccinations and current prescriptions. Time with the physician would be “really spent in that face-to-face encounter to address the specific issues” of the patient. A follow-up call by a physician or staff would ensure the patient comprehended any instructions, gathering any needed data. It would make a huge difference, quantitatively and qualitatively, in the completeness of a visit, Abraham says.

“However, all that comes with extra work time and personnel, all of which add cost,” he says. “And so unless our system, our reimbursement system, changes to accommodate those sorts of concepts, we wouldn’t be able to enhance the quality of care to the extent that we would like it to be.”

Solutions for your own practice

Build teams, use technology

It’s a bad situation,” says Etz, a co-author of the NASEM report. “These people are really struggling. We really need to figure out both how to increase the workforce that we have in primary care and how to support the current workforce that is suffering historic highs of mental exhaustion and burnout and historic lows of resilience.”

When physicians close their practices, other doctors take on more patients but resources are stretched even thinner. The United States has about one-third of its medical workforce in primary care but that number needs to be about 40% of its medical workforce to create a basic, well-functioning health care system, Etz says. The situation likely will get worse. Last year the Association of American Medical Colleges projected a national shortage of between 17,800 and 48,000 primary care physicians by 2034.

There are policy solutions that could help. Physician groups applauded in December 2021 when CMS announced 1,000 new Medicare-funded physician residency slots in qualifying hospitals. They will be phased in with about 200 a year over the next five years, targeted for hospitals with training programs and the greatest need for physicians. It was the largest increase in Medicare-funded residency slots in more than 25 years, according to CMS.

Those slots need to focus on primary care, “the bread and butter, which is foundational in medicine,” not subspecialties, says George M. Abraham, M.D., M.P.H., MACP, immediate past president of the American College of Physicians and an internal medicine physician in Worcester, Massachusetts.

The AAFP has called for more federal spending on programs that target primary care, such as the National Health Service Corps, which started in 1972. It offers scholarships and student loan repayment for doctors and other health care staff who work in underserved areas around the nation.

The academy endorses the federal Teaching Health Center Graduate Medical Education program, which started in 2011 and has trained more than 1,148 primary
CAREERS / FIXING PRIMARY CARE

physicians and dentists in underserved areas, with 65% working as family physicians.

As a field, primary care needs a fresh approach to recruitment, Abraham says. “Unfortunately, we don’t have the equivalent of an NBA or an NFL or an NHL draft, so there aren’t these people queuing up to be a member of the team,” Abraham says. “We’re sort of coaxing people to come play with us.”

Medical students learn that treating patients with multiple medical problems is time consuming, energy draining and sometimes demoralizing, and they will make more money and likely have less workload as specialists, Abraham says. Physicians need to talk to medical students about the joy they find in getting to know patients, sometimes generations of families, and the mutual caring relationships that can develop. Getting students out to see how primary care affects a community “would be incredibly beneficial,” especially during the third and fourth years that are specialty oriented, Ransone says.

Advocacy needed now

As pandemic conditions subside, doing more of the same is an option — and probably the worst one if physicians hope to see meaningful change in payment methods and finding new doctors, experts say. Physicians and analysts already know primary care is the only part of the health system in which regular investments produce more equity and lower mortality, Bitton says. Physicians need to be part of the solution set, and that starts by articulating their needs to patients, payers and policy makers.

“That’s going to require advocacy, political organizing (and) articulation of a clear use case just like other physician and nursing specialties do,” Bitton said. “I mean, cardiologists and neurologists are really good at advocating for the things they need. I would argue primary care should be just as good or better. We offer a huge value proposition for the rest of the health care system for our communities (and) for our country. Now we need to state it and then get to practicalities and then implement it.”

Read the reports

The National Academies of Sciences, Engineering, and Medicine formed a committee that in May 2021 published the study “Implementing High-Quality Primary Care: Rebuilding the Foundation of Health Care.”

Seven physician organizations joined to create Primary Care Speaks As One, a unified long-term vision for primary care in the U.S. health care system.
https://www.newprimarycareparadigm.org/


The American Academy of Family Physicians launched its Vision 2025 Project to develop a value-based payment model for primary care.

Better Health – Now is a campaign launched by the Primary Care Collaborative in March 2022 “to improve health and health care for patients and their families by convening and uniting stakeholders around research, care delivery and payment models, and policies.”
https://www.pcpcc.org/betterhealthnow

COMING SOON

Medical Economics™ Pulse sat down with L. Allen Dobson, M.D., to discuss the state of primary care, including threats and opportunities for physicians. Watch here:
https://www.medicaleconomics.com/medical-economics-pulse
Editor’s Note: The following is adapted from “Searching for the Family Doctor: Primary Care on the Brink” by Timothy J. Hoff. Copyright 2022. Published with permission of Johns Hopkins University Press.

Poor soil for growing generalists

When I worked in primary care as an administrator back in the late 1980s, I heard the same complaint from the family doctors with whom I worked as I do now from those that I interview for my research—primary care medicine is not paid for in the United States anywhere commensurate with its value to patients. When I helped to run an insurance billing department for a primary care office thirty years ago, I saw firsthand how much lower the payments were for services meant to keep people from getting sick compared to payment for services that relied on waiting for people to get sick. Not much has changed in 2021. There is the rhetoric that primary care and prevention matter much more now to insurance companies, hospitals, and doctors’ offices. Sure, maybe in a few areas like chronic disease management where primary care medicine and family doctors have been asked to do more for patients. But that has not created a financial windfall for primary care, and what it asks of family doctors is very much responsible for how joyless some of their patient care work has become. For the most part, high-cost specialty medicine still dominates the health care system and still receives the bulk of the insurance payments. It is responsible for keeping hospitals profitable and specialist doctors well paid and in control.

The specialty of family medicine has always existed within the context of an unsupportive American health care system that underemphasizes primary care, where service is fragmented and procedural medicine is favored, and that waits until people get sick to interact with them and is ever more corporatized. It is a care delivery system long built on capitalist ideals. One defined by a supply side which pushes the prevailing narrative that health care is not a fundamental individual right, but rather a market in which buyers and sellers come together to transact business that benefits both sides. Despite the advent of Medicare and Medicaid in the 1960s, and the Affordable Care Act in 2010, health care in America since the 1970s has been mostly about providing big ticket items to an unhealthy, largely uninformed group of patients. That is where the money has always been for hospitals and specialists. This profit motive has produced a care delivery system in which monopolistic behavior and service fragmentation abound, politicians serve powerful industry stakeholders in biased ways, growth is valued above all else, and patients are left mostly out of the equation.

To create such a cold-blooded system takes time. It has not happened overnight. Neither will it be fixed overnight. Such a system is no friend to either family medicine or primary care. In fact, such a system views primary care as an attractive nuisance, useful for capturing patients in more expensive systems of care and getting them efficiently to higher-cost services. A loss leader to get patients to
CAREERS / FAMILY DOCTORS VERSUS THE HEALTH SYSTEM

the expensive stuff. The American health care system has for decades been less enthusiastic to the idea of a generalist doctor managing patients’ care holistically and with a high level of relational excellence. It has financially undervalued primary care in all its forms. It has allowed the job of a family doctor to become saddled with administrative chores and bureaucratic requirements. It has made family doctors buy into one new initiative after another, overpromising how these initiatives would help primary care while under delivering. In many ways, it has treated family doctors like the generalists of old they replaced — as lower-valued and lower-paid parts of American medicine.

The financial undervaluing of primary care
All things hostile to family medicine in the American health care system start with reimbursement. And reimbursement has not been kind to family medicine and primary care delivery over the years. In terms of receiving adequate payment for its services, primary care medicine has always been the ugly stepchild of American health care. In other countries like Canada and the United Kingdom, primary care medicine and its doctors remain the centerpiece of care delivery and receive a significant bulk of the resources, but in the United States it has not been that way since World War II. Continued advances in medical technology, the rise of hospitals and specialists, and an ambivalent public have been steady negative influences on primary care’s viability.

Aiding these developments beginning in post-World War II America was the increased availability of private insurance for many Americans, usually paid by employers. Before insurance, generalist doctors dealt in a cash-only business, charging patients fixed fees for different types of services. Their system of billing was perhaps less egalitarian in giving everyone the chance to obtain their services, but it was within physicians’ control and fully transparent. Patients knew how much a service would cost, and they could assess whether it was worth the cost to have it performed, at least from their personal perspective. Doctors, almost all of whom owned their practices, could in theory better manage their revenue and expenses, altering their prices in relation to how much time and other resources were put into the service provided. Such a payment system helped to keep generalist medicine an economically viable endeavor in which a single doctor could be involved as an owner. One might not get wealthy, but you could earn a good living, control the economics of your practice, and do the kind of medicine that you wanted with your patients.

Then insurance came along. Private insurance separated patients from the costs of various forms of care, making specialty medicine an attractive option with fewer financial risks associated with it. While other countries like Canada and the United Kingdom insured most of their populations through government-run programs that had spending caps and placed primary care medicine at the center of care delivery, the United States pursued its insurance expansion in a different way, focused for decades on fee-for-service reimbursement and providing “usual and customary” payments to doctors based largely on what the latter wanted to charge for their services.

Insurance in American health care undercut the economic rewards of primary care medicine for family doctors because it biased payments toward procedures and specialists. It prevented patients from understanding “value” when it came to diagnosis or treatment and
many no longer needed to worry about how much a health service cost. The fee-for-service payment system over time paid out more bills at a higher rate for specialists than for primary care doctors, because the usual and customary fees were set by specialists themselves, with little questioning of how they came up with their fees.

Good primary care medicine is slower to do than most procedural work. It does not align well with procedural medicine that can be done in an assembly-line fashion, generating a higher volume of overall fees in the process. Family medicine or primary care involves something called “evaluation and management services,” which in essence is time the family doctor spends on interviewing the patient, asking questions, getting to know patients, and managing a wide swath of clinical complaints and treatments for some. Attempting to be someone’s “comprehensive doctor” and “care manager” means a lot of these types of tasks and activities.

Whereas specialists are niche providers focused on treating single diagnoses and body parts, family doctors in theory are practicing medicine focused on prevention, disease management, behavioral health, and family care. They rely on getting to know their patients’ preferences, needs, and wants to deliver this type of medicine effectively. They must get patients to trust and listen to them. Primary care medicine takes more time as a result. It also has a longer trajectory to seeing the end results because it is more uncertain and complicated for many patients, involves a lot of cognitive work on the part of the doctor, and often has delayed time frames for seeing good outcomes. Many tasks and activities of primary care medicine simply have not been as highly valued dollar-wise by insurers. But they are critical to a close-knit doctor-patient relationship.

Timothy Hoff, Ph.D., is professor of management, health care systems, and health policy at Northeastern University in Boston; a visiting associate fellow at the University of Oxford, and author of "Next in Line: Lowered Care Expectations in the Age of Retail- and Value-Based Health."
Medical Economics® is proud to present the 93rd Physician Report. Our in-depth survey presents exclusive data collected from our physician audience on salaries, productivity, malpractice rates, the state of the profession and much more. The survey was conducted by HRA®, a full-service health care market research agency and a brand of MJH Life Sciences®. Data were collected from physicians who responded to email invitations during the first quarter of 2022.

FINANCIAL STATE OF PROGRESS (compared with one year ago)

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Better than a year ago</td>
<td>21%</td>
<td>22%</td>
<td>23%</td>
<td>11%</td>
<td>21%</td>
</tr>
<tr>
<td>About the same</td>
<td>48%</td>
<td>52%</td>
<td>55%</td>
<td>43%</td>
<td>50%</td>
</tr>
<tr>
<td>Worse than a year ago</td>
<td>30%</td>
<td>26%</td>
<td>22%</td>
<td>46%</td>
<td>29%</td>
</tr>
<tr>
<td>No answer</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

INSIDE

26 Practice ownership  
27 COVID-19 impact  
28 Salary  
29 Student debt  
30 Productivity  
30 Medical lifestyle  
31 Malpractice rates  
32 Secondary income  
33 Ancillary services  
33 Who took the survey
WHY FINANCES IMPROVED OR WORSEned IN 2021

Top reasons for improvement:
1. Seeing more patients
2. Increased revenue from telehealth
3. Receiving pay-for-performance incentives
4. Addition of ancillary services
5. Renegotiated payer contracts

Top reasons things got worse:
1. Lost revenue/increased expenses due to COVID-19
2. More time spent on uncompensated tasks
3. Lower reimbursement
4. Higher overhead
5. Difficulty collecting from patients
The top 10 issues facing physicians in 2021

1. Burden of paperwork/quality metrics
2. Burnout/work-life balance
3. Third-party interference (e.g., prior authorizations)
4. Inadequate reimbursement
5. Electronic health record systems
6. Lack of staffing
7. Lack of trust in health care institutions and medical knowledge
8. Recruiting young physicians
9. Malpractice/tort reform
10. Supply shortages

*Arrow indicates change from 2020

PRACTICE OWNERSHIP
Do you have an ownership interest in your practice?

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>50%</td>
<td>50%</td>
<td>49%</td>
<td>51%</td>
<td>45%</td>
</tr>
<tr>
<td>No</td>
<td>50%</td>
<td>50%</td>
<td>51%</td>
<td>49%</td>
<td>55%</td>
</tr>
</tbody>
</table>

PERCENTAGE OF PHYSICIANS WITH OWNERSHIP STAKE IN THEIR PRACTICE, THE LOWEST RATE RECORDED IN SURVEY’S HISTORY

PERCENTAGE OF PHYSICIANS SURVEYED WHO DID NOT CONDUCT ANY TELEMEDICINE VISITS IN 2021

AVERAGE NUMBER OF TELEMEDICINE VISITS PHYSICIANS CONDUCTED PER WEEK IN 2021

19
8
COVID-19 IMPACT

Financial state
(compared with before COVID-19 pandemic)

Did your practice receive any funds from a federal relief program (e.g., CARES Act, Paycheck Protection Program)?

- Don't know
- Yes
- No

2020
- 20%
- 50%
- 30%

2021
- 24%
- 43%
- 33%

How did your practice’s use of telemedicine in 2021 compare with your use in 2020?

- Don't know
- Conducted more telemedicine visits
- Conducted fewer telemedicine visits
- Conducted about the same number of telemedicine visits

- 11%
- 22%
- 18%
- 49%
### Average income by primary care specialty

Average pretax income comparison for both employed physicians and practice owners
2021 physician average pretax income = $268,270

<table>
<thead>
<tr>
<th>Specialty</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>Difference*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal medicine</td>
<td>$230,000</td>
<td>$262,000</td>
<td>$243,000</td>
<td>$234,000</td>
<td>$209,000</td>
<td>-$25,000</td>
</tr>
<tr>
<td>Family medicine</td>
<td>$205,000</td>
<td>$242,000</td>
<td>$241,000</td>
<td>$232,000</td>
<td>$240,000</td>
<td>+$8,000</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>$205,000</td>
<td>$233,000</td>
<td>$231,000</td>
<td>196,000</td>
<td>$210,000</td>
<td>+$14,000</td>
</tr>
<tr>
<td>OB-GYN</td>
<td>$271,000</td>
<td>$288,000</td>
<td>$298,000</td>
<td>$285,000</td>
<td>$300,000</td>
<td>+$15,000</td>
</tr>
</tbody>
</table>

*Difference from 2021 to 2022

### Average income by gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>$268,000</td>
<td>$306,000</td>
<td>$300,000</td>
<td>$292,000</td>
<td>$291,000</td>
</tr>
<tr>
<td>Women</td>
<td>$207,000</td>
<td>$232,000</td>
<td>$226,000</td>
<td>$222,000</td>
<td>$221,000</td>
</tr>
<tr>
<td>Difference</td>
<td>$61,000</td>
<td>$74,000</td>
<td>$74,000</td>
<td>$70,000</td>
<td>$70,000</td>
</tr>
</tbody>
</table>

### Average income by community

<table>
<thead>
<tr>
<th>Community</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inner city</td>
<td>$247,000</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Urban</td>
<td>$253,000</td>
<td>$283,000</td>
<td>$260,000</td>
<td>$276,000</td>
<td>$271,000</td>
</tr>
<tr>
<td>Suburban</td>
<td>$249,000</td>
<td>$285,000</td>
<td>$280,000</td>
<td>$268,000</td>
<td>$266,000</td>
</tr>
<tr>
<td>Rural</td>
<td>$230,000</td>
<td>$274,000</td>
<td>$281,000</td>
<td>$265,000</td>
<td>$269,000</td>
</tr>
</tbody>
</table>

*In 2018, the survey was amended and “inner city” was removed as a choice.

### Average income by region

<table>
<thead>
<tr>
<th>Region</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northeast</td>
<td>$245,000</td>
<td>$280,000</td>
<td>$263,000</td>
<td>$254,000</td>
<td>$263,000</td>
</tr>
<tr>
<td>Midwest</td>
<td>$249,000</td>
<td>$278,000</td>
<td>$280,000</td>
<td>$278,000</td>
<td>$273,000</td>
</tr>
<tr>
<td>South</td>
<td>$245,000</td>
<td>$285,000</td>
<td>$280,000</td>
<td>$267,000</td>
<td>$273,000</td>
</tr>
<tr>
<td>West</td>
<td>$252,000</td>
<td>$284,000</td>
<td>$269,000</td>
<td>$290,000</td>
<td>$270,000</td>
</tr>
</tbody>
</table>

### Average income by practice ownership

<table>
<thead>
<tr>
<th>Ownership</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner</td>
<td>$252,000</td>
<td>$315,000</td>
<td>$289,000</td>
<td>$276,000</td>
<td>$289,000</td>
</tr>
<tr>
<td>Non-owner</td>
<td>$241,000</td>
<td>$248,000</td>
<td>$258,000</td>
<td>$265,000</td>
<td>$252,000</td>
</tr>
</tbody>
</table>
Average income by practice type/employer

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private practice</td>
<td>$301,000</td>
<td>$282,000</td>
<td>$268,000</td>
<td>$264,000</td>
</tr>
<tr>
<td>Hospital-owned practice</td>
<td>$288,000</td>
<td>$290,000</td>
<td>$297,000</td>
<td>$289,000</td>
</tr>
<tr>
<td>Inpatient hospital</td>
<td>$278,000</td>
<td>$276,000</td>
<td>$274,000</td>
<td>$262,000</td>
</tr>
<tr>
<td>Nonprofit organization</td>
<td>$228,000</td>
<td>$248,000</td>
<td>$254,000</td>
<td>$233,000</td>
</tr>
<tr>
<td>Government</td>
<td>$206,000</td>
<td>$214,000</td>
<td>$224,000</td>
<td>$279,000</td>
</tr>
</tbody>
</table>

Average income by practice size

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solo practice</td>
<td>$280,000</td>
<td>$253,000</td>
<td>$242,000</td>
<td>$247,000</td>
</tr>
<tr>
<td>2 physicians</td>
<td>$261,000</td>
<td>$280,000</td>
<td>$259,000</td>
<td>$267,000</td>
</tr>
<tr>
<td>3-10 physicians</td>
<td>$307,500</td>
<td>$282,000</td>
<td>$287,000</td>
<td>$271,000</td>
</tr>
<tr>
<td>11-50 physicians</td>
<td>$283,000</td>
<td>$277,000</td>
<td>$281,000</td>
<td>$283,000</td>
</tr>
<tr>
<td>More than 50 physicians</td>
<td>$283,000</td>
<td>$286,000</td>
<td>$286,000</td>
<td>$292,000</td>
</tr>
</tbody>
</table>

**$70,000**  
THE DIFFERENCE IN AVERAGE PRETAX INCOME BETWEEN MALE AND FEMALE PHYSICIANS IN 2021.

**$37,000**  
GAP IN AVERAGE ANNUAL EARNINGS BETWEEN PHYSICIANS WHO HAVE OWNERSHIP INTEREST IN THEIR PRACTICE VERSUS THOSE WHO DO NOT.

**STUDENT DEBT**

Average amount of medical school debt, by physician years in practice, in 2021

<table>
<thead>
<tr>
<th>Years</th>
<th>Debt Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 10</td>
<td>$173,000</td>
</tr>
<tr>
<td>11 to 20</td>
<td>$123,000</td>
</tr>
<tr>
<td>21 to 30</td>
<td>$94,000</td>
</tr>
<tr>
<td>31 to 40</td>
<td>$92,000</td>
</tr>
<tr>
<td>41 years and more</td>
<td>$0</td>
</tr>
</tbody>
</table>
PRODUCTIVITY

Average number of hours worked per week, by specialty
Average number of hours for all physicians = 48

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Family medicine</td>
<td>52</td>
<td>52</td>
<td>52</td>
<td>48</td>
<td>50</td>
<td><strong>47</strong></td>
</tr>
<tr>
<td>Internal medicine</td>
<td>54</td>
<td>54</td>
<td>53</td>
<td>51</td>
<td>52</td>
<td><strong>49</strong></td>
</tr>
</tbody>
</table>

AVERAGE NUMBER OF HOURS WORKED PER WEEK IN 2021

<table>
<thead>
<tr>
<th>Category</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>By gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>By practice ownership</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice owners</td>
<td>49</td>
<td></td>
</tr>
<tr>
<td>Non-owners</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>By years in practice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-10 years</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>10-20</td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>21-30</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>31-40</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>41 and more years</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>By specialty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal medicine</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Family medicine</td>
<td>52</td>
<td></td>
</tr>
<tr>
<td>Pediatrics</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>By practice size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solo</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>2 physicians</td>
<td>49</td>
<td></td>
</tr>
<tr>
<td>3-10 physicians</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>11-25 physicians</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>26-50 physicians</td>
<td>49</td>
<td></td>
</tr>
<tr>
<td>51 or more physicians</td>
<td>50</td>
<td></td>
</tr>
</tbody>
</table>

MEDICAL LIFESTYLE

Q: If you could go back in time and choose your career again, you would choose:

<table>
<thead>
<tr>
<th>Choice</th>
<th>61%</th>
</tr>
</thead>
<tbody>
<tr>
<td>The same specialty</td>
<td></td>
</tr>
<tr>
<td>A different specialty</td>
<td>18%</td>
</tr>
<tr>
<td>A different career altogether</td>
<td>17%</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>4%</td>
</tr>
</tbody>
</table>

Specialty most satisfied with their choice: **Ophthalmology (75%)**
Specialty least satisfied with their choice: **Internal medicine (33%)**
## MALPRACTICE RATES

Change in malpractice premiums for 2021, compared with 2020

<table>
<thead>
<tr>
<th>Change</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased</td>
<td>22%</td>
</tr>
<tr>
<td>Stayed the same</td>
<td>62%</td>
</tr>
<tr>
<td>Decreased</td>
<td>3%</td>
</tr>
<tr>
<td>Don’t know</td>
<td>13%</td>
</tr>
</tbody>
</table>

### MEDIAN 2021 ANNUAL PREMIUMS

#### By specialty

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Premium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family medicine</td>
<td>$9,200</td>
</tr>
<tr>
<td>Internal medicine</td>
<td>$9,100</td>
</tr>
</tbody>
</table>

#### By gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Premium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>$10,000</td>
</tr>
<tr>
<td>Women</td>
<td>$8,000</td>
</tr>
</tbody>
</table>

#### By geographic region

<table>
<thead>
<tr>
<th>Region</th>
<th>Premium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northeast</td>
<td>$12,300</td>
</tr>
<tr>
<td>South</td>
<td>$7,500</td>
</tr>
<tr>
<td>Midwest</td>
<td>$10,400</td>
</tr>
<tr>
<td>West</td>
<td>$8,200</td>
</tr>
</tbody>
</table>

#### By years in practice

<table>
<thead>
<tr>
<th>Years in practice</th>
<th>Premium</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 or less</td>
<td>$7,000</td>
</tr>
<tr>
<td>11-20</td>
<td>$10,800</td>
</tr>
<tr>
<td>21-30</td>
<td>$11,200</td>
</tr>
<tr>
<td>31-40</td>
<td>$9,200</td>
</tr>
<tr>
<td>41 or more</td>
<td>$7,100</td>
</tr>
</tbody>
</table>

#### By practice ownership

<table>
<thead>
<tr>
<th>Ownership</th>
<th>Premium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice owners</td>
<td>$9,400</td>
</tr>
<tr>
<td>Non-owners</td>
<td>$9,700</td>
</tr>
</tbody>
</table>

---

**Q:** Would you recommend that your child or a friend’s child pursue a career in medicine?

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>43%</td>
</tr>
<tr>
<td>No</td>
<td>29%</td>
</tr>
<tr>
<td>Not sure</td>
<td>27%</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>1%</td>
</tr>
</tbody>
</table>

Specialty that most frequently wishes they had chosen a different career altogether: **Psychiatry (27%)**
**SECONDARY INCOME**

*Did you earn income from an employment source outside your practice in 2021?*

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>30%</td>
<td>32%</td>
<td>30%</td>
<td>33%</td>
<td>31%</td>
</tr>
<tr>
<td>No</td>
<td>69%</td>
<td>68%</td>
<td>70%</td>
<td>67%</td>
<td>69%</td>
</tr>
<tr>
<td>No answer</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

**Top 10 sources of secondary income in 2021**

1. Consulting
2. Teaching
3. Expert witness
4. Nonmedical work
5. Clinic work
6. Hospital, not emergency department
7. Market research
8. Speaking
9. Clinical trials/research
10. Medical administrator

*Arrow indicates change from 2020*

**Amount of secondary income (average) in 2021**

- Internal medicine: **$58,000**
- Family medicine: **$44,000**
- Pediatrics: **$55,000**
- OB/GYN: **$58,000**
**ANCILLARY SERVICES**

Most popular ancillary services in internal medicine/family medicine in 2021

<table>
<thead>
<tr>
<th>Service</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECG</td>
<td>73%</td>
</tr>
<tr>
<td>Lab services</td>
<td>54%</td>
</tr>
<tr>
<td>Spirometry</td>
<td>38%</td>
</tr>
<tr>
<td>Nutritional counseling/weight loss</td>
<td>30%</td>
</tr>
<tr>
<td>Radiology/imaging services</td>
<td>24%</td>
</tr>
<tr>
<td>Pain management</td>
<td>18%</td>
</tr>
<tr>
<td>Holter monitoring</td>
<td>15%</td>
</tr>
<tr>
<td>Pharmacy services</td>
<td>14%</td>
</tr>
<tr>
<td>Bone densitometry</td>
<td>13%</td>
</tr>
<tr>
<td>Addiction medicine</td>
<td>11%</td>
</tr>
<tr>
<td>Implantable contraceptives</td>
<td>11%</td>
</tr>
</tbody>
</table>

Percentage of revenue for primary care from ancillary services in 2021 (average)

<table>
<thead>
<tr>
<th>Service</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal medicine</td>
<td>12%</td>
</tr>
<tr>
<td>Family medicine</td>
<td>13%</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>9%</td>
</tr>
<tr>
<td>OB-GYN</td>
<td>14%</td>
</tr>
</tbody>
</table>

**About the survey**

The 93rd Medical Economics® Physician Report was conducted by HRA®, a full-service health care market research agency and a brand of MJH Life Sciences®. Data were collected from physicians who responded to email invitations between January 17, 2022 and March 15, 2022. Margin of error is ±3.23% based on a 95% confidence level.
Benchmarking your practice

What metrics physicians should track

by Jordan Rosenfeld, Contributing Author

Running a physician practice means wearing different hats — sometimes a challenge when patient care takes most of a doctor’s time. For a practice to thrive, it is important to track, measure and address specific benchmarks. Here we look at some key areas, from converting leads to claim denials, navigating a value-based care model and tracking reimbursement.

Clinical/quality benchmarks
Denise Brown, M.D., an internal medicine physician and the chief growth and strategy officer at Vituity, a nationwide multiespecialty physician partnership based in Emeryville, California, breaks down key benchmarks into essential “buckets” for doctors to prioritize as follows: clinical, operational, financial and equity.

Measuring clinical metrics can be challenging, Brown says, particularly when trying to measure patient outcomes. “The real outcome that matters is quality of life,” she says “and everyone’s got a slightly different perception of what that is.” She recommends physicians utilize quality-of-life surveys or track how often patients avoid emergency room admission or readmission.

In the value-based care model “we’re going to get paid on the value we create,” according to Dan McNeil, chief commercial officer for PatientPop, a growth and patient engagement platform for independent practices based in Santa Monica, California. The challenge for the primary care physician is to work to eliminate hospitalization or referrals to specialists when possible, and both metrics can be tracked.

Operational benchmarks
“It’s the operational benchmarks that can really make or break your small group or private practice,” Brown says. These include such metrics as tracking how long patients wait in your office before being seen, how well your practice communicates with patients and whether it provides options such as text, email and phone.

What physicians must realize about improving their operations is that “we are in a new era of consumer-driven health care,” McNeil says. “Patients want the Uber experience … easy, accessible and convenient.”

This necessitates looking at the patient experience from the moment a practice first collects patient information, which he says should be a digital, simple process. “And when they show up, they’re brought right into the appointment room and it’s just as elegant as it can be,” he says.

Physicians should also follow up appointments
Financial benchmarks

Important financial benchmarks begin before a practice even sees a patient, McNeil says. “What are your incoming patient leads and are those leads converting?” he asks.

He suggests that in this digital age there are many opportunities to track conversion rates of patient leads into appointments, but it does require having a website, app or patient portal and staying on top of online reviews. It also requires paying attention to patients’ show rate and looking at the technology and software that could be introduced to make the process easier for practice manager and patient. “This could be providing text confirmations, digital intake forms, etc.”

The model dictates the metrics

The financial metrics a practice needs to track will vary depending on the financial model of the business, according to David Berg, president of Redirect Health, a care navigation company with headquarters in Scottsdale, Arizona.

“In an entirely fee-for-service model, the more I do, the more I’m going to make — so if I’m spending too much time with somebody and not getting that corresponding billing, I’m going to get in trouble financially.” In this model, physicians will likely be tracking ways to offer patient care that do not always require an in-office visit, he says.

In the fee-for-service model, physicians must pay close attention to their collection percentage. “It’s easy to leave a lot of money on the table if the doctor is not measuring collection percentages based on the work they do,” Berg says. Improving this ratio may require collecting more from patients up front or increasing the number or the seamlessness of available payment options.

In the value-based care model, where physicians are paid in a capitated way, the financial benchmarks become more connected to the quality of patient care, McNeil says. This means physicians must work more efficiently to reduce frequency of patient visits. “With value-based care, getting the trust of the patient is more important, and the customer experience depends a lot on communication,” McNeil says.

Berg discovered after years of running a practice that physicians need to take a very close look at how they are being reimbursed by Medicare/Medicaid. “I would encourage physicians to pick the top 10 codes they use and measure the pricing for just those, because I see a lot of doctors getting fooled in their contracts.”

For example, he says, “If I’m a primary care doctor, I don’t really care what I get paid on a heart surgery. Or if I never do skin biopsies, it doesn’t matter what I’d get paid. What matters is what I get paid on the services I typically do.”

Accounts receivable

An obvious, but often fraught, metric to track is accounts receivable (AR). “You don’t want your AR to get huge,” says Beth Cable, director of revenue cycle operation for AKASA, an artificial intelligence (AI)-powered automation for health care businesses.

Common problems with AR include denied claims and the work of correcting errors and resubmitting claims. “You want to make sure you’re collecting as much as you can and tying that in with a clean claim rate, which means getting that claim out the door right the first time,” Cable says.

This is where AI-based programs can help automate processes that would otherwise consume the resources of a billing person or practice manager. “Some AR denials and requests for additional documentation requests can be handled by AI,” Cable says.

Berg recommends an in-house billing person over outsourcing. “The first 80% of claims are fairly easy to get. The next 10% gets dramatically harder to collect, and you’ve got to know when to stop trying so you don’t waste money.” The amount of money most outsourcing companies want may not be worth it to obtain that last 5% to 10% for a smaller practice.

Equity benchmarks

Lastly, Brown emphasizes the importance of measuring equity in a practice, although it is not as easy a metric to track as some others. “Who are you treating and why, and how did you decide?” she asks. “If you don’t take insurance, why are you not, or which insurances are you not taking?” She feels these are important questions for a practice to ask to ensure it is reaching as wide a patient population as possible.

Berg adds that this extends to guiding patients, who are often confused by their health care journey, in understanding everything from how to make an appointment to the costs of their care. “The more that a doctor can hold a patient’s hand and guide them through the things where they have the most fear and doubt, the more value that doctor is going to create.”
Physician buy-in agreements

Here is what you need to do when becoming a practice owner

For a physician, a partner buy-in agreement is an admission to the ownership and management of the practice as well as a landmark in a medical career. The agreement determines many of the most important aspects of a physician’s career, including compensation, ownership stake, management responsibilities and the terms under which he or she can leave the practice through retirement or resignation.

However, the agreements do not always get the scrutiny they deserve, according to health care attorneys who have represented practices and physicians in negotiations over the contracts. “A partnership agreement is a crucially important agreement that could be in place for 30 years or more and it should be approached that way,” says health care attorney Jeffrey Sansweet of Wayne, Pennsylvania.

What buy-ins cover
Buy-in agreements are different from the employment contracts physicians sign when joining a practice as an associate. However, employment contracts often stipulate the time of service and other conditions necessary for an associate to be considered for or automatically offered a partnership.

Usually, terms of the buy-in agreement are negotiated separately, after a physician has been with the practice for two to five years. That period allows the associate and partners to evaluate one another and the partners to learn the revenue-generating capacity of the associate. Of course, not all doctors want to become partners, with some preferring to remain employees.

Negotiations usually are not contentious, says Patrick Formato, a health care attorney in Lake Success, New York. “By the time they get to the buy-in, the associates know what the situation is and what the buy-in is,” he says. “And if the practice really values the physician and they want to make it happen, they’re going to make it happen.”

There are exceptions, however. Sansweet says he has seen negotiations drag on for years: “It can get heated when you deal with ego, money and power.”

The amount of negotiating can depend on the practice and how frequently it adds partners. A larger practice that regularly executes agreements probably will work from a template that it is unlikely to alter significantly, Sansweet says. However, a practice that has not added a partner in a long time or that has seen its circumstances change is usually more willing to start from scratch, he says.

Not surprisingly, the attorneys interviewed recommended that physicians hoping to become partners should hire a health care attorney to negotiate on their behalf. “Don’t let the practice’s attorney tell you what to do,” Sansweet says, adding that having lawyers do the negotiating can avoid tension between associate physicians and the partners they hope to join.

Determining the value
Because aspiring partners are buying a share of the practice, determining the value of the practice is key to a fair agreement. There are three common ways to calculate it.

The first is the market method, basing a practice value on recent sales of comparable practices nearby, like the way real estate agents price houses.

Continued on page 38

by James F. Sweeney Contributing author
More time to focus on your patients.
Just what the doctor ordered.

Introducing Physicians First, customized financial solutions for physicians, dentists, veterinarians and their practices. Doctors have unique financial needs — and little time to deal with them. Physicians First was designed to help you achieve your goals, from paying off student loans and buying a home to building a practice and planning for retirement, all while appreciating your greatest asset — time. Learn more at fnb-online.com/physicians.
Healthcare business consultants typically collect practice transactions through annual surveys, broken down by specialty, location and other practice characteristics.

The second is the revenue method bases the value on practice profitability. It is favored by accountants and often used in conjunction with the market method.

The third method is based on practice assets, such as equipment, real estate, valuable inventory and any affiliated businesses, and calculates what it would cost to build the practice from the ground up. Any debt owed by the practice is subtracted from the value.

The practice should open its books to an associate physician during negotiations, including any existing valuations, additional companies owned by the practice, leases, revenue, tax returns, balance sheets, debt and buyout agreements for current partners, Sansweet says, adding, “It’s a red flag if they’re not willing to share everything.”

Practice valuations often include goodwill, the value of a practice over and above the value of its net tangible assets. Such items as patient lists, an ideal location, community reputation and other factors can be included in this.

Buy-ins generally are less expensive than they used to be, Formato says, explaining that as more practices are acquired by hospitals and health care systems, the remaining ones have fallen in value. Typically, when a practice is acquired, the employment and buy-in agreements are voided and replaced by employment agreements with the new owners, he says.

The buy-in payment can be structured in several ways. A lump sum payment is relatively uncommon. More typical is payment through years of deductions from the new partner’s salary or a mix of the two.

“A partnership agreement is a crucially important agreement that could be in place for 30 years or more, and it should be approached that way.”

—Jeffrey Sansweet
health care attorney

The importance of buyouts

Buyouts — the terms under which a partner leaves the practice through retirement, resignation, death, disability or other means — are part of most buy-in agreements and just as important, says Formato. Although these usually are negotiated as part of the buy-ins, many agreements include opportunities to renegotiate when a partner decides to leave or retire.

They usually include the amount of notice a partner must give the practice before leaving, which might be up to 180 days, Sansweet says. And the new partner’s buyout is not the only one that matters.

To truly determine the value of the practice, aspiring partners should also examine the buyout agreements of current partners, particularly if they are nearing retirement age. These agreements detail the terms of how the practice will buy back the ownership shares of departing partners. Depending on the cost, the financial impact can be severe.

Buyouts can sometimes be renegotiated to reduce the cost to the practice, Formato says, adding that in some cases a practice will try to break the agreement to preserve its viability. Buyouts guaranteed by the partners themselves can be harder to change, whereas those guaranteed by the practice can be easier to break, he says.

Other terms to consider

Although the buy-in and buyout terms are most important, buy-in agreements cover other key subjects as well. One of these is power in the management of the practice. A new partner buying a share equal to three current partners should get an equal vote with the other three, Sansweet says. However, it is not unusual for larger practices to have tiered partnerships with senior members retaining more clout.

Buy-in agreements can spell out the new partner’s administrative responsibilities, work and on-call hours, vacation time and more. They also can provide job security by barring partners from expelling someone from their ranks without just cause.

Buyouts also can include non-compete clauses that restrict a departing partner’s freedom to join another practice or establish a new one. However, Sansweet says, these are unenforceable in a growing number of states.
Thursday, June 30
3:00 PM – 7:00 PM EST

Business Training for Physicians

- Coding & Reimbursement
- Concierge Medicine
- Remote Patient Monitoring
- Tax Planning for Physicians

Maximize your time and your earning potential
Industry experts will guide you through four business-focused sessions that will help you reach your full profit potential.

REGISTER FOR FREE!
Scan or visit: medicaleconomics.com/summerbootcamp

Sponsored by:
Better patient engagement

How digital tools can help physicians collect what they are owed

The number of severe COVID-19 cases may be on the decline, but physicians still face plenty of headwinds, including some that existed before the pandemic and others that the pandemic created. Many physicians — confronted with staffing shortages and clinician burnout, rising patient demand for telehealth, increased supply and labor costs and a lack of interoperability between different information systems — are struggling to maintain prepandemic profitability levels.

That is why it is essential that physicians obtain the payments they are owed as quickly as possible, completely capture accurate payments and minimize collection costs. For many physicians, solving these problems starts with adopting digital engagement tools that make it easier for patients to schedule appointments at any time of the day by choosing from a preselected list of available dates and times specified by the provider. Self-scheduling reduces barriers to care for patients while enabling staff to spend more time on higher-value activities.

**Automated, omnichannel reminders:** Physicians can implement information systems that deliver automated reminders to patients at prespecified intervals prior to appointments. Appointment reminders help physicians maintain revenues by reducing the rate of patients who miss or skip visits.

**Prearrival and in-clinic digital check-in:** With digital check-ins, patients enter or confirm key personal and insurance data plus the reason for their visit, which enables physicians to deliver a previsit cost estimate based on visit type and copay. When patients validate, confirm and update information, it increases the likelihood of clean claims that result in prompt payment to physicians.

**Digital billing and bill reminders:** According to new research, 32% of patients will pay their medical bill within five minutes of receiving a text reminding them to pay their bill; 25% will pay when presented a bill via email. Patients expect the security and convenience of text and email notices to receive and pay bills.

**Flexible payment plans:** Physicians that offer patients flexible postservice payment plans can improve collections, reduce the need for costly follow-up activity, and reduce bad debt sent to collection agencies. Ultimately, patients want to pay their bills, but because most health care costs are unplanned, it is important to offer flexibility to create a win-win for patient and physician.

To thrive financially in a postpandemic world, physicians must do everything they reasonably can to secure the payments they are owed while minimizing investment in resources to collect those payments. Digital patient engagement tools that boost convenience for patients and productivity for staff represent the path to get there.

Rajesh Voddiraju is president of Health iPASS, a Sphere Company. Send your tech questions to medec@mhiflsciences.com.
The COVID-19 pandemic has stressed the entire health care workforce. Particular attention in press accounts has been focused on burnout among nurses and doctors along with other clinical personnel resulting from long work hours, inadequate staff, shortage of supplies and the emotional toll of caring for dying patients. We simply must provide better preparation and support for those who care for others.

Not to detract from this important group, but I would also call attention to another group of caregivers who, like doctors and nurses, have experienced increased stress and burnout during the pandemic but also go almost totally unrecognized during nonemergency times. That group consists of family caregivers for patients who are elderly, disabled or facing a critical or terminal illness.

I can speak from personal experience, having been the primary caregiver for my parents, both in their 90s, during the last years of their lives. It is a difficult task under any circumstances but made worse by inconsistent resources, lack of coordination of needed help, and the disconnect between the medical system and other providers of care and services.

I can hardly imagine the increased stress involved for those who have had less exposure to the health care system than have I, a physician of 40 years. The effect of the pandemic found its way to homebound patients, making doctor visits more difficult and resources harder to find while bringing significant social isolation due to limitation of visitors.

I have been left to wonder: How does being a caregiver affect the health of the caregiver, and how does our system dysfunction play into that effect? It turns out there are multiple studies looking at the issue, dating back to the 1980s. While not all caregivers experience significant long-term negative health effects, there are reports of increased depression, higher morbidity rates due to ignored or delayed health care for the caregiver, financial and emotional stress, and family and work disruption.

How big a problem is it? A study of employees of a large insurance company more than 10 years ago found that 25% of their employees reported being a caregiver to a family member or loved one. A follow-up study at one of the nation’s largest financial institutions found that rate to be 32%, which has only risen during the COVID-19 pandemic.

I imagine the stress of caring for a loved one with COVID-19 and the worry about family exposure have taken a huge toll. There have been notable reductions in productivity and attendance among caregivers, although the option for working from home and the recognition of the issue and employer flexibility significantly mitigate the workplace effects.

In my own small study of the senior management of my organization done three years ago, a surprising 80% were caregivers. But the shocking part to me was that not one of us knew of the burden our colleagues were coping with.

As we begin to address social determinants and how to mitigate their negative health effects, should we not also begin to ask whether the patient in front of us is also a caregiver? Or should we not ask more about who is caring for that older, critically ill patient we are treating and make sure they have all the resources they need to do the job?

Caregiving is hard and often consuming. It goes beyond the doctor visits and making sure medications are filled and given properly to include coordinating other family and paid caregivers, grocery shopping and food prep, keeping up the household, paying bills, handling financial affairs, and often preparing for the death of a loved one.

It was helpful for me to have a caring family physician whom I could call or text when needed, along with the resource book, “The Caregivers Toolbox” by Carolyn Hartley and Peter Wong. There are other great resources available, but I became aware of this one after working with Peter, who was a Fortune 500 business consultant, and who wrote this book after a personal experience with caregiving. There needs to be a national discussion on how to provide better long-term care for our seniors, but we should also start by coordinating, funding and providing support services for patients and their caregivers.

L. Allen Dobson Jr., M.D., FAAFP, is a family physician and editor-in-chief of Medical Economics®.
Welcome to this Endocrinology Network® Patient Care® presentation titled “The Role of Continuous Glucose Monitoring in Diabetes Management.” We’re going to focus on the various factors that shape the use and impact of continuous glucose monitors (CGMs) in the treatment of diabetes.

Role of CGMs in diabetes management
There are many challenges to the self-monitoring of blood glucose. One day, it’s going to be archaic, like how people used to have to test their urine for glucose. We couldn’t imagine that people would be peeing in a cup now and using that to test their glucose. Self-monitoring of blood glucose requires blood, which isn’t always fun. You have to use a lancing device, which is sharp and can feel painful. You have to draw a drop of blood. You have to carry supplies: test strips, a glucose meter and a lancing device. It’s pretty inconvenient.

It provides only one number at one point in time, so you don’t know the direction that the glucose is going. You could get a reading of 110 mg/dL, and someone could feel confident that their glucose is in the target range, but what if it’s dropping quickly? Unfortunately, that’s something that a blood glucose monitor isn’t able to tell somebody. However, a CGM can provide information about what the number is at that time along with the direction that it’s going in and ... predict impending high or low glucose values.

CGM has many benefits and can improve disease management in both Type 1 (diabetes) and Type 2 diabetes. One thing CGM does very well is provide instant feedback on lifestyle choices. Someone could eat a cup of oatmeal and immediately see how that impacts their glucose value. I frequently have patients who tell me: “I noticed that when I eat oatmeal, it spikes a lot. I thought oatmeal was healthy compared with eggs. Eggs don’t raise me up very much.” Things like that are very helpful along with the instant feedback about the benefits of exercise, such as walking after a meal.

There’s also the safety component. A lot of people are scared about going low — rightfully so. It’s very common that people might eat an extra bedtime snack because they’re worried about dipping low overnight. A CGM has a low glucose alert feature, so they can have the confidence that it’s OK for them to go to bed with their glucose in the target range. If it drops, they’ll get alerted and will be able to take action on that.

In terms of the health care team, the data are invaluable. If all you have is an A1C (glycated hemoglobin) reading and a few fingerstick
readings, it’s like flying blind. You don’t know exactly what to do to the treatment regimen. If A1C is above target, you know you need to adjust something but you don’t know (whether) the person is having lows. With a CGM, you have all this information. You can determine exactly when someone isn’t in target range and then have a more targeted intervention to help them increase time in range and obtain their A1C target.

There are a lot of data that show the benefits of a CGM in terms of improving glycemic management. We have (several) randomized controlled trials with a real-time CGM, thinking back to the old DIAMOND trials in Type 1 (diabetes) and Type 2 diabetes. We also have (several) randomized control trials with intermittently scanned CGM. I’m not going to go through all the data but the bottom line is that these trials showed that there were decreases in A1C as well as increases in that time in target range.

Time in range is becoming an important metric. That’s the time spent between 70 and 180 mg/dL. The reason this is becoming so important is because we know we can bring down A1C. A1C is an average, so we can bring it down by causing tons of hypoglycemia. Obviously, that isn’t good clinical management and won’t lead to good clinical outcomes. By increasing time in range we can still achieve the A1C target, but in general we’re going to have safer outcomes and people are going to feel better because they’re not going to be on this roller coaster of high and low or having tons of lows.

Other important things we’ve seen from the clinical trial data are improvements in quality of life — as well as other important end points like reducing hospital admissions for severe hyperglycemia and reducing emergency department admissions for hypoglycemia or hyperglycemia — there’s a huge cost benefit to using these devices.

When we think about the burden on health care professionals, we know that (physicians) are being asked to see more patients. It can be challenging to take care of people with diabetes, especially if you have a 20-minute slot with their visit. CGMs have helped people reach their A1C targets and other metrics. The reduction in hospital and emergency department admissions is important and reduces the burden for health care professionals. A CGM could increase the burden if it isn’t implemented in a systematic way. That’s not a great thing to say. I’m a big advocate of the use of CGMs, but the reality is that you’re going to get more data, so your team has to have a process of who will look at the data, how you’re going to download the data and what you’re going to do with it. Sometimes that involves a bit of training up front for the team, or at least figuring out who on your team is going to be the technology champion. Fortunately, there are a lot of people who want to be technology champions. When you think about the diabetes care and education

Dr. Isaacs provided brief highlights of new CGM systems available now or coming soon. For additional information visit https://diatribe.org or https://diabeteswise.org.

**Emerging CGM systems in diabetes management**

**Eversense E3 implantable CGM**
- Only device with an implantable sensor, now approved by the Food and Drug Administration (FDA) for 180 days and available for adults 18 and older later this year.
- Simple in-office procedure to implant twice a year
- Removable, rechargeable smart transmitter
- On-body vibrating alerts for highs, lows
- Calibration every 12 hours for first 21 days, then once every 24 hours

**Dexcom G7 CGM**
- Approximately 60% smaller than Dexcom G6
- Insertion requires one hand only
- Shorter warm-up time (30 minutes) than G6 (120 minutes)
- Mean absolute relative difference of 8.2%
- Fully disposable transmitter/sensor unit

*Not yet approved by the FDA

Continued on page 45
specialist or the pharmacist, dietitian, nurses or your MAs (medical assistants), who on your team can you utilize who’s interested in this space and wants to develop more expertise that can help you? That way you can implement good practices so that it doesn’t feel like an extra burden and is helping your practice provide the best care for your patients.

**Patient selection for CGMs in diabetes**

When we think about patient factors to consider for CGM use, the patients’ preferences are always my top concern. I want patients to have choices and realize what their options are. We have four options on the market and I want them to understand some of the differences, like alarm capabilities. Some have predictive alerts, so you can predict hypoglycemia in the next 20 minutes. Others don’t and have simpler alerts for highs and lows. Some have the option to turn all alerts off. Others don’t have that option. Some are implantable; some aren’t. The point is that people need to understand the differences so they can make an informed choice about what’s going to be the best option for them. Another example is calibration. Some require fingersticks and some don’t. You want people to know and understand those things and see what will work best for them.

Is there a subset of patients for whom we wouldn’t recommend CGM? It’s an interesting question. I come back to choice. I had a patient earlier this week who has Type 1 diabetes and has been checking with fingersticks four times a day and is doing great. He’s reaching his A1C targets. He’s doing well. He said he doesn’t want to wear a CGM. He’s concerned that he might feel overwhelmed by the data. He feels that what he’s doing is working very well for him. I respect that choice. In the future, if he’s not meeting his treatment targets, I may try to ... encourage him to try it, but he’s doing well now. It’s not something we have to force everyone to do.

I find that with most people, even if they’re reluctant to start it — maybe they don’t want to wear something on their body or they don’t like this idea of all the data — once they try it out, they usually realize, “This was a lot smaller than I thought and I don’t have to look at the data all the time. I can look only when I want to.” Many people do very well with it.

In terms of providing education when recommending CGM, there are a lot of websites I utilize. I like to provide initial education about the different options in a very objective way and then I refer to websites like https://diabeteswise.org, which is a great site. It’s a nonindustry-funded site that objectively goes through the options and asks people questions about what’s important to them so that they can figure out what might be the best technology for them. I also recommend websites like https://diatribe.org, which is up to date with cutting-edge technology. If there’s a ... CGM innovation, we know it will be the first to report on that. I like to send patients to those sites to do a little additional reading for follow-up before they (decide).

**Utilizing CGMs for diabetes management in COVID-19**

CGMs have been instrumental during the COVID-19 pandemic. We’ve all had to pivot to virtual care. We were fortunate. At Cleveland Clinic, we were doing virtual visits long before the pandemic but we do (them) much more frequently now than we ever did before. What’s nice about a CGM is that the data with most of these devices are Bluetooth connected, so it’s going into a portal that can be viewed ... instantly to see how someone is doing. Even the data that aren’t automatically going into a portal have the capability to be plugged in and downloaded. In terms of virtual care, we’re able to view those data. It’s a lot more informative than if we only had an A1C value.

One of the unique things about a CGM is that we have all these different ... key metrics. In addition to time in range, we have the glucose management indicator (GMI). That’s essentially an estimated A1C. I’m able to use that to track how someone is doing and see (whether) they’re meeting their treatment targets. During COVID-19, that’s been very helpful because a lot of people don’t want to come in. They don’t want to go to the laboratory, I have people who haven’t been to the laboratory in a long time, but I still have a very good objective assessment of how they’re doing. In fact, there’s a lot of movement to see (whether) GMI and time in range could overtake A1C or at least be supplemented with A1C so we’re not relying on this one metric every three months for evaluating diabetes care.

**Evolution of CGMs in managing diabetes**

When we think about CGM accuracy, they’ve all shown that they’re pretty accurate. We have a term we use to describe the accuracy: mean absolute relative difference (MARD). The lower, the better. According to the Food and Drug Administration, when MARD is below 10%, the device is accurate enough to base treatment decisions on. That would include treating hypoglycemia or determining insulin doses based on the numbers. We feel pretty comfortable with their accuracy.
It continues to improve.

One thing we have to be aware of is that there’s a slight lag time with CGM. The gap is closing, so the lag time isn’t what it was like 10 years ago. But because fingersticks are measuring the capillary and CGM is measuring interstitial fluid, there’s a slight delay. That means that if somebody recently ate something, the glucose on the fingerstick might be a little higher than it would be on the CGM. Similarly, if someone recently exercised or gave an insulin injection, that number may be a little different. Educating people on those differences is very important.

Beyond that, calibration is sometimes a factor that goes into device selection. When you calibrate, you’re essentially doing a fingerstick and entering (the result) into the device to calibrate it. Any time you do that, you could be entering in some error, because we know fingersticks aren’t perfect. If you have anything sticky or sweet on your fingers or if you didn’t get a good enough sample, that can skew the reading. If you put a bad reading into the device, you’re probably going to skew the accuracy. That can be a determination.

CGMs have evolved so much over the past several years. It has been amazing. Some big advancements are regarding calibrations. It used to be standard that all CGMs required fingersticks, and now we have factory-calibrated options that don’t require any fingersticks or have them as optional. There have also been impressive advancements with wear time. One of our devices goes up to 14 days. Another is implantable and goes up to 180 days. Wear time has evolved. It used to be about three days to start.

The other area where we’ve seen a lot of advancement is with integration. We have CGMs that integrate with insulin pumps to have automated insulin delivery, which is incredible. We also have CGM integration with connected insulin pens, which can also use those data and be able to view it in one report, which is remarkable. Several mobile apps can link in with these CGM data. Accuracy has improved a lot over the years, and we’re seeing that the sensor is getting smaller.

**Unmet needs in diabetes management**

Despite all of the amazing advancements that we have had in the CGM space, there are still some unmet needs in research and clinical treatment. I do a lot of management in pregnancy, and we lack clinical studies in pregnant women with preexisting Type 2 diabetes or true gestational diabetes, where women develop diabetes during their pregnancy.

It would also be valuable to collect more information on the use of CGM and the outcomes in people with Type 2 diabetes who aren’t taking insulin. Last year, we had the MOBILE study, which studied Type 2 diabetes on only basal insulin and showed an impressive A1C reduction in that population. I’d like to see more on the complete noninsulin users. The other area where we need more research or best practices is the implementation of CGM. Many of us are sold on CGM being a great tool. However, how does a busy practice suddenly implement this tool? How do they get their team up to speed on reviewing these reports that look different from typical glucose meter readings? We need more of that so we can efficiently get this into practices across the country and world. —

Diana Isaacs, PharmD, BCPS, BCACP, BC-ADM, CDCES, is a Clinical Pharmacy Specialist and Remote Monitoring Program Coordinator at the Cleveland Clinic Diabetes Center.
**MARKETPLACE / PRODUCTS & SERVICES**

**MEDICAL EQUIPMENT**

**Medical Equipment Deals!**
Tools for Increased Reimbursement & Office Efficiency at Discount Prices

**EKGs with Interpretation**
- Bionet CardioTouch 3000: $1,495.00
- Sec glof F11-1: $2,981.00
- Burdick Z20: $4,294.00
- Wuens Alen CF13G w/tele: $3,845.00

**ADView 2 Vital Signs Monitor**
- The ADView 2 is the only truly modular diagnostic station that grows with your needs. Start with blood pressure and choose temperature or pulse oximetry options at the time of purchase.
- Starting at: $876.00

**EMR-Compatible Spirometers**
- PC Based and Direct to Printer
- Astra 300 USD #998.00
  - "Touch Screen Display"

**Family Practice Exam Table**
- A durable, reliable, patient-friendly exam table for any office. Many base and upholstery color combinations only $824.00.

**Boost Your Revenue!**

**Screener Audiometer**
Only $395.00

**Lifeline AED**
Only $1,315.00

**Gold Standard AED**

**CLIA Waived COVID-19 Test**
GenBody COVID-19 Rapid Antigen Test Kit (25/Box)
- Rapid detection of SARS-CoV-2 will play a key role in the global spread of the virus. Affordable and sensitive test that does not require an additional reader, with a processing time of 15-20 minutes. Identify acute infection with 92.31% sensitivity and 99.04% specificity. FDA & ELIA approved.
- Our Price: $25.00

**CALL TODAY to ORDER: 877-646-3300**
to: www.medicaldevicestore.com

---

**ACCU-COLD**
Performance Series
- Refrigeration designed and specified for pharmacy, medication, and vaccination applications. Support meeting CDC/VFC vaccine storage guidelines.

**PHARMA-VAC**
Performance Series
- Solid & Glass Door Refrigerators
  - From 1 to 15 Cu.Ft.

**PHARMA-LAB**
Performance Series
- Refrigerators & Freezers
  - From 23 to 40 Cu.Ft.

---

**Choosing the Right Sized Unit**
- Below are a few handy steps for determining the ideal pharmacy refrigeration size for your clinic:
  1. Estimate the maximum number of doses of multidose/vaccine and vaccine equivalent products expected to be available.
  2. Add the number of doses of "ready-to-infuse" products you believe you’ll be ordering.

---

**Advanced Temperature Control & Durable Performance**
- Intuitive microprocessor digital temperature controller
- Adjustable operating control range from -2 to +8°C
- Digital display of the setpoint temperature in Celsius or Fahrenheit
- Password-protected control parameters beyond audit
- Optimized forced air cooling for fast cold stability & efficiency with rapid recovery
- Door and high/low temperature alarms
- Factory-installed lock conveniently located towards the top of each unit
- Adjustable shelving can be opened in 4” intervals for flexible storage

**Visit** www.medicaldevicestore.com **for all product information and options**

---

**Medical Device Depot**
For product application suggestions or recommendations contact our product specialists to discuss options at: 877-646-3300
Advertising in Medical Economics® has accelerated the growth of our business by putting me in contact with healthcare professionals around the country. It has allowed me to help both my colleagues and my patients.

— Mark J. Nelson, MD, FACC, MPH

Joanna Shippoli
Advertising
(440) 895-2615 | jshippoli@mjlifesciences.com
An interview with Christopher Fly, M.D.

Physician dean and beekeeper

by Grace Halsey Senior Editor

Medical World News® (MWN) recently spoke with Christopher Fly, M.D., who by day is assistant dean for curriculum and associate professor in the Department of Emergency Medicine at the Medical College of Georgia, in Augusta. And as if emergency medicine didn’t cause enough buzz in the space of a workday, after hours, Dr. Fly is an amateur beekeeper. The following transcript has been edited for length and clarity.

MWN: When you’re not in the School of Medicine or advising medical students, you might be found tending your backyard beehive. How did that interest start?

Fly: Well, it’s interesting. I’ve always had hobbies and I’ve been kind of eclectic, but I always wanted to have things to do outside—it keeps me peaceful, keeps the batteries charged. I think I’ve always been a little bit fascinated with it. Interestingly, I don’t particularly like honey. My wife is an excellent baker, though, and she uses it quite a bit. So, six or seven years ago, my youngest, who’s now a senior in high school, came home from school one day, and said his teacher was taking a beekeeping class. I think maybe she even brought bees to school, but my son said, “I’d like to learn about bees.” And I said, “Well, that’s kind of cool. That’d be fun. Let’s try it.” And we started looking into it. It wasn’t something I wanted to do without any kind of training whatsoever. We missed the first season we could have started, so we kept reading about it and about one year later, my son and I went to a beekeeping class just across the river in South Carolina. In South Carolina you can actually get a Master Beekeeping certification although it’s not required. Most states, particularly agricultural states like Georgia where we live, have an interest in people being beekeepers—the more bees we have, the better pollination we have. He and I went through the class together. And then we got the bees. That’s how it started. And it was a project that he and I did together for some time. And as teenagers do, he got a little less enthused with it. But I was hooked as it were and I kept doing it.

MWN: Where does one get an original group of bees to start a hive?

Fly: There are a couple of different ways but in our case one of the people involved in teaching the class who got really into it now sells his bees. So we bought ours from him. You can buy a box, or what they call a “package” that’s about 12 by 5 inches that is filled with bees and a queen. The queen is sequestered in the “queen cage” — a box about the size of a matchbox — with a few bees from her original hive. The rest of the bees are not from her hive, so they need to be kept separated for a while. Eventually she is freed from the queen cage and she will begin laying eggs. You put that group of bees in an empty hive — it doesn’t have to have any comb in it to start. I started with a brand new one and they started building a comb almost immediately. The queen started laying eggs almost immediately. And there you have a hive.

MWN: How many bees do you have now?

Fly: There’s no way for me to count them all—it’s well into the thousands. I started off with probably around 10,000 or 12,000 and they have built themselves up to probably 25,000 to 30,000 now. I don’t know that for sure, but they are an average size hive.

MWN: Do you have a bee sting story?

Fly: I have been stung several times. As you may know, we have a little golf tournament here in the spring in Augusta. And I happened to be working there one year and the flowers are blooming and there are bees all over the place. I was standing on the course...
one day, watching them, and I’m not sure what I did because generally they won’t bother you when they’re on the flowers, etc. But one landed on me and stung me. I had to laugh because I wondered if maybe it was one of my bees. I live close to the Augusta National Golf Course and bees will fly three or four miles to collect pollen. So I thought, yeah, maybe was one of my bees.
I’ve been stung through my gloves. Some beekeepers work barehanded but I’m not going near that. Early on when I was feeding the bees, I had on my smock and my veil but I was wearing shorts. I didn’t think I had agitated them but one of them found my leg and boy, did I get stung. It’s probably like a lot of things in medicine. If you haven’t been stung by a bee yet you probably haven’t done it enough. Keepers who have 20 and 30 hives get stung pretty regularly. I have heard stories of older beekeepers who do it without any kind of protection. I don’t like it.

**MWN: Where does beekeeping fit in to your schedule, and is it in any way like medicine?**

**Fly:** It’s not an everyday thing. It’s just fun some days to check on the hive outside or look out the window and watch the bees going in and out, make sure everything looks normal. Probably just because it’s fascinating. In the summertime, when they’re really active, it might as well be like O’Hare Airport or Hartsville Atlanta; they’re just going in and in and out and out in and out. It is just fascinating to me to watch. These tiny creatures know how do to all these things and know they need to do them. They go out, find the pollen source, come back to the hive, and then communicate to the rest of the bees, “OK, go three miles to the northeast for this great bunch of flowers.” It’s all done with a “bee dance” that we can’t see, but it conveys exactly what the rest of the hive should do. And this is happening in my backyard. It’s fascinating. That’s part of why I chose medicine, to learn more about the complexity of life in the world. And there’s always something new to learn. Same with beekeeping—and I’ve learned a lot over the last five years by making mistakes and messing stuff up and trying again. This is also a sustainable hobby. I can do this for as long as I want to.”

---

**Christopher Fly, M.D. with his son.**
HELP YOUR PATIENTS BREAK FREE FROM TRADITIONAL CGMS WITH THE ONLY 6-MONTH* CGM

Introducing the New Eversense E3 Continuous Glucose Monitoring System

ascensiadiabetes.com/eversense

* Up to 6 months.

The Eversense® E3 Continuous Glucose Monitoring (CGM) System is indicated for continually measuring glucose levels for up to 180 days in persons with diabetes age 18 and older. The system is indicated for use to replace fingerstick blood glucose (BG) measurements for diabetes treatment decisions. Fingerstick BG measurements are still required for calibration primarily one time a day after day 21, and when symptoms do not match CGM information or when taking medications of the tetracycline class. The sensor insertion and removal procedures are performed by a health care provider. The Eversense E3 CGM System is a prescription device; patients should talk to their health care provider to learn more.

For safety information, see https://www.ascensiadiabetes.com/eversense/safety-info/

Eversense, Eversense E3 Continuous Glucose Monitoring, and the Eversense logo are trademarks of Senseonics, Incorporated. Ascensia and the Ascensia Diabetes Care logo are trademarks of Ascensia Diabetes Care Holdings AG. Android is a trademark of Google LLC. Apple Watch is a product of Apple, Inc., and may be separately purchased from an authorized Apple retailer. Apple Watch is not included with the Eversense CGM System. All other trademarks are properties of their respective owners and are used solely for informative purposes. No relationship or endorsement should be inferred or implied. PP-SENS-GBL-0074
Your mental health partner

We take the guesswork out of mental health care referrals, with insurance accessible care that treats the whole person — not just the diagnosis. We’re a trusted leader in mental health, and your partner in patient care.

mindpath.com/referrals
Fax: 855-420-6402

Our Services
- Psychiatric Evaluation
- Medication Management
- Therapy
- Pediatric Mental Health Care
- Family/Marital Counseling

We are adding access to more services frequently.
Offering same-day appointments

Introducing Mindpath On Demand, offering a fast and convenient way to get a same-day appointment, providing patients with rapid care.

Three easy steps:
1. Call 866-386-1445
2. Enter waiting room and complete documentation https://portal.mendfamily.com/
3. See provider quickly, allowing patients to get a new prescription or refill that same day

Mon–Thurs: 8am–4pm for Therapy
Tues: 1pm–4pm for Medication Management
Wed: 7am–11am for Medication Management

We’re here to help. Refer today.
Fax or complete our online referral form.

In-network with most patients’ insurance
More accessible care – new insurance plans are added regularly. Visit our website to learn more.