For the sake of what?

Does this move us in the direction of our mission?

Is this the best use of resources?

Is this the direction we said we want to go?

Our Mission:

Pathway Homes embodies the spirit of recovery: embracing an attitude of hope, self-determination and partnering with each individual on their personal journey toward achieving self-fulfillment and realizing their dreams.

We fulfill our mission by making available to individuals and families with mental illness and co-occurring disabilities a variety of non-time-limited housing and services to enable them to realize their individual potential.

PATHWAY HOMES of FLORIDA, INC.

Special Meeting of the Board of Directors
Monday, December 30, 2019
3:00 P.M.
10201 Fairfax Blvd., Ste. 200
Fairfax, VA 22030-2209

3:15 Call to Order

3:16 Approval of Minutes from September 27, 2019*

3:20 CEO's Report – Dr. Sylisa Lambert-Woodard

3:35 Treasurer's Report - Brenda Brennan

3:40 Chairperson's Report and Comments

3:45 Old Business

3:50 New Business
    1. Officer Elections
      *Jennifer Judelsohn; Chair
      * Dan Gray; Vice-Chair/Secretary/Treasurer
    2. Member Elections
      *Jennifer Judelsohn (2019-2022)
      *Dan Gray (2019-2022)

3:55 Announcements

4:00 Adjournment

* Materials Enclosed in Packet

Pathway Homes of Florida, Inc.
December 30, 2019 Board of Directors Update

Pathway Homes of Florida has contracted to receive our primary funding from three (3) primary sources: the Homeless Services Network (HSN) which is now administering funding from Orange and Osceola counties, Seminole County, and a separate contract with the City of Orlando.

Our primary contract signed with HSN for the coming year, October 1, 2019 through September 30, 2020 will be for **$720,500** This contract funds 6.0 Case Manager positions, Peer Support Specialist, our Director of Case Management, Housing Specialist and SOAR Benefits Specialist positions and Administrative/Accounting Support and most of our operating costs.

We are in the fourth quarter of our contract with Seminole County for **$77,145** which funds a 1.15 Case Manager positions serving clients whose homelessness originated in Seminole County.

In June 2019 our contract for **$85,241** by the City of Orlando was renewed also. This contract funds a 1.0 Case Manager position to work exclusively with chronically homeless from the City downtown area, assisting them into apartments subsidized by Orlando Housing Authority vouchers.

On October 21, 2019 Pathway Homes received notice of funding from the City of Orlando Community Investment Program for **$60,000** to fund a Peer Support Specialist Position and additional Barrier Buster funds for the 2020 Calendar year.

Total funding for Pathway Homes of Florida through grants and contracts over the coming year is expected to be **$942,886**.

A significant goal and effort over the past year has been preparing, accrediting and credentialing the Florida organization to begin billing Medicaid for Targeted Case Management services. Shantel Graves has been approved as a Medicaid Provider and all eligible staff have been through appropriate training and received certification by the Florida Certification Board as Behavioral Health Case Managers. Currently, we have submitted our first credentialing application to contract with the primary Managed Care Organization (MCO) serving our clientele, WellCare Health. We are expecting our contract with them to be approved in the near future.

Pathway Homes of Florida was recruited (9/18/19) to Launch Florida's FIRST 1115 Waiver for Permanent Supportive Housing (PSH). This waiver will create the capacity to bill Medicaid for select services such as Targeted Case Management, Peer Recovery Services and potentially crisis stabilization. The selection of this pilot is a significant accomplishment, as it acknowledges Pathways as a preferred provider in Region 5- Central Florida.

On 12/17/19 staff participated in on line trainings with Staywell for a Provider Orientation to acquaint us with Florida's Managed Medical Assistance Program, Serious Mental Illness (SMI) Specialty Program

and Children's Medical Services (CMS). This orientation was for newly contracted providers, and those in the process of becoming contracted.

The Central Florida Foundation launched a new Measurement Tool called the Impact Genome. This evidence-based, standardized social outcomes tool enables you to quickly and easily report the impact of non- profit programs, and helps collect outcomes and impact data. This tool was also designed to measure program efficacy and created a scorecard (attached). *Pathways Homes of Florida was invited and participated in the first Genome Impact Study. This study was the first to* benchmark nonprofits in Central Florida. As Pathways looks at ways to identify opportunities to build capability and capacity, this was an intentional and impactful study.

Pathways scorecard provides evidence that we measured positive impact, while our cost is somewhat higher. I think this correlates with what research is validating regarding initial investments in quality services. We are finding out nationally that the ROI is evidenced in the reduction of ER visits, psych hospitalization and incarceration costs when PSH is provided.

Here are a couple of websites to give you more information:

https://www.impactgenome.org/about

https://www.youtube.com/watch?v=HjXFY-eF58s

Pathways is pleased to announce that Shantel Graves has been named Senior Division Director for Pathways of Florida effective October 1, 2019. This change in leadership is implemented at this time to ensure for the future capacity building of the agency, and to maximize the available administrative dollars committed to the agency in the future.

Our current Florida staffing includes 8.0 Case Manager positions, 1.0 Housing Specialist, 1.0 SOAR Benefits Specialist, 1.0 Peer Specialist position, 1.0 Administrative Accounting Assistant and our Senior Division Director, Shantel Graves.

The Florida team not only provides best practice services in the region, but also exhibit strong corporate citizenship through volunteering in the community. Three staff volunteered for the "Basket Brigade" which is a faith-based program to provide free Thanksgiving meal fixings to individual and families in need. The Sunday before Thanksgiving, volunteers deliver hundreds of baskets filled with all the fixing to make a Thanksgiving meal along with a gift certificate for a turkey. The staff are also in the planning stages for the Point in Time count in January. Each year, the community undertakes the task of trying to obtain an accurate point in time count of homeless persons. To complete the task, many organizations and volunteers are needed, and Pathway Homes of Florida always comes through with several volunteers to help do everything from administrative tasks to going out into the woods to interview individuals.

Three potential board candidates have been identified for future board discussion: Marta Negron, Senior VP/Orlando Regional Manager of MID FLORIDA Community Credit Union who is still being

pursued. While they are currently undergoing a merger, Sylisa will follow up with her in January. Alonzo Williams, President of ZERION Telemedicine has been ruled out due to lack of availability; and, John Kelly, Publisher of Orlando Medical NEWS has not been contacted to determine if board service is an option. Future discussions with the board will be scheduled to determine the potential complement to our board.

Pathways of Florida Financial report has been presented for your review. Current payments are delayed due to a ransomware attack on Florida software systems that provide reimbursement (see attachments about ransomware).

Pathways of Florida is currently engaged in developing a fundraising arm to anticipate future unreimbursed expenses, and reimbursement to Pathway Homes. Please review the attached fundraising report.

PATHWAY HOMES OF FLORIDA, INC.
Minutes of the Board of Directors
September 27, 2019

A special meeting of the Board of Directors was held on September 27, 2019. A *quorum* being present, the meeting was called to order at 8:34 a.m. by Chairman, Jennifer Judelsohn. The following individuals were present and participated throughout the meeting:

<u>**MEMBERS**</u>

Jennifer Judelsohn, Chair
Dan Gray, Vice-Chair/Secretary/Treasurer
Sue Zywokarte

<u>**STAFF**</u>

Sylisa Lambert-Woodard, President & CEO
Brenda F. Brennan, CFO
Anita Robinson, VP for Clinical Services
Anna Smith, Dir. of Development & Major
    Gifts
Lauren Leventhal, Quality Assurance
    Manager

<u>**MINUTES**</u>

Jennifer Judelsohn called for a motion to approve the minutes from December 3, 2019 as presented. Dan Gray made a motion to approve, which was seconded by Sue Zywokarte and approved unanimously.

<u>**CEO Report**</u> – Dr. Sylisa Lambert-Woodard

In addition to the addendum, Dr. Lambert-Woodard gave the following synopsis: The Florida division is thriving. The contract is transitioning from private funding to local government funding. Outcomes are extremely high as is team morale. Joel McNair is transitioning out of his position as Director. He was integral in allowing the agency to scale-up and provide replication of values, ethics, and agency culture. Sylisa recognized Anita and Brenda for their help in making the project a success.

The agency has been recognized as a "Gold Star" agency by commissioner, Mark Brewer. This should help with fundraising and development in the future. The FL subsidiary gives VA name recognition. The agency has benefited with contracting with Medicaid and other agencies. DBHDS and Medicaid representatives were at a conference in FL where they presented on PSH with Florida as the premier agency.

TREASURER'S REPORT – Brenda Brennan

FY19 was a pivotal year for contract. In January, contract shifted from private to government contracting through HSN. Their reporting requirements are much different; there is hope that the government contracts will streamline the reimbursement process. Based on communications, the agency hopes to recapture may 'lost' funds from FY19 in FY20 since invoices are still in process.

CHAIRPERSON'S REPORT AND COMMENTS – Jennifer Judelsohn

Jennifer had nothing to report.

OLD BUSINESS –

There are 3 potential new board members. Sylisa would like to schedule more time with Jennifer to discuss in more detail.

NEW BUSINESS –

None.

ANNOUNCEMENTS –

None.

ADJOURNMENT

There being no further business, Jennifer made a motion to adjourn the meeting. This was seconded by Sue and unanimously approved by the Board.

The meeting was adjourned at 8:57 a.m.

Respectfully submitted,

Florida Philanthropic and Communications Report – December 11, 2019

Pathway Homes continues to increase its communication and fundraising efforts in Central Florida.

Leadership and staff have been attending East Orlando Chamber of Commerce and Edyth Bush Nonprofit Institute at Rollins College networking and education events. We just completed our first Pathway Homes of Florida external stakeholder report and will send the digital copy to the Florida contact list we have been building over the last year through our networking efforts.

Pathways held screening calls with two potential board members who reside in Central Florida. One individual chose not to pursue the opportunity at this time, however, would like to remain connected to our organization. We continue discussions with the other candidate.

Mark Brewer, CEO of the Central Florida Foundation, a leader and a catalyst for the attention on expanding services for the homeless in the community, sent the attached letter of endorsement which we will use as we pursue potential funders.

Pathway Homes of Florida Inc:
Pathway Homes of Florida Case Management

Organization Overview

Name	Pathway Homes of Florida Inc
Genome	Housing

Program Overview

Program Name	Pathway Homes of Florida Case Management
Program Type	Direct Service
Beneficiary Type	Individuals
Budget	$942,886 USD

Description

Pathway Homes works with community partners in the Central Florida region to help reduce chronic homelessness. Case managers (CMs) are referred individuals through the Homeless Services Network's (HSN) chronic homeless registry. CM services include assisting individuals in locating housing and developing the skills to maintain housing and fully integrate into the community. Typical servces may include (direct or by referral): apply for benefits, connecting to healthcare services, developing social networks, job training, and other ADLs.

Program Logistics

Location:

United States (Florida)

Key Demographics

Core Beneficiary Group:	The program primarily serves single adults with co-occurring disabilities who are also experiencing chronic homelessness.

Age

Young Adults (19-30 years old)	1%
Adults (31-64 years old)	81%
Aging, Elderly, Senior Citizens (65+ years old)	18%

Sex

Male	74%
Female	24%
Non-binary	2%

Race

White or Caucasian	63%
Black or African American	35%
Other	2%

Additional Characteristics

Low-Income or Economically Disadvantaged	100%
People with Disabilities	100%
Homeless	100%
Unemployed	90%
People with Physical Health Condition(s)	62%
People with Mental Health Condition(s)	45%

Mission Measurement Insight

The program demonstrates a cost-per-outcome above sector benchmark, likely due to ongoing support after initial intensive services for beneficiaries with disabilities and chronic homeless status. The organization also collaborates with Pathway Homes of Virginia to extend services through in-kind donations. Current evaluation implements HMIS data collection at program exit, which could be further extended through follow-up surveys to see if participants are indeed still house after one year.

Outcomes

Primary Outcome: Housing Stability

This outcome is satisfied if an individual has achieved all of the following within the past year:
- Has access to affordable, quality housing options
- Has a stable place to live through home ownership
- Achieved stability in income, mental health status, and physical health status

Secondary Outcome(s): Personal Well-Being, Access to Quality Resources

Self-Reported Data

85%	116	99	$9,524
Efficacy Rate	Program Reach	Actual Outcomes	Cost per Outcome
% beneficiaries achieving a positive outcome	# of beneficiaries served	Total # of beneficiaries achieving a positive outcome	Budget / Actual Outcomes

Level of Data Reported

Level 1	RCT* or quasi-experimental
Level 2	Pre-post or cross-sectional
Level 3	Point-in-time study
Level 4	Performance metrics /stats
Level 5	Anecdotal evidence

*Randomized Control Trial

At least 85% of participants were expected to remain housed for at least one year; 80% to maintain/increase their income, and 80% to have access to primary healthcare and show reduction in ER visits. The data was collected on the 116 individuals served through the HMIS entry and exit data points related to length of stay, exit destination and cash benefits for FY 2019; ER visits from case notes.

Genomic Analysis

Most Emphasized Activities ("Genes") in this Program

1. Provides assistance in obtaining permanent subsidized housing

2. Provides rapid rehousing / permanent placement into privately owned apartments and homes

3. Coordinates / fosters collaboration with government

4. Fourth gene not selected

5. Fifth gene not selected

Program Intensity

Dosage	Frequency	Duration
1 hour to <3 hours	Once every week	3 years or more

Individuals receive more intensive services during the first 6 months to 1 year. As skills and independence increase, service needs frequently decrease. Therefore newer individuals may receive services 1-2 times a week, whereas long-term stably housed individuals may get services 1-2 x per month.

Sector Benchmark Data

Program Name	Efficacy Rate	Cost Per Outcome
Pathway Homes of Florida Case Management	85%	$9,524
Impact Genome Benchmark* for this Outcome	60% - 76%	$2,788 - $4,047

* The average Efficacy Rate and Cost Per Outcome of all programs in the Impact Genome database that target this same outcome.

POWERED BY:

November 21, 2019

To whom it may concern,

I want to call your attention to an impactful organization called Pathway Homes of Florida, Inc. or Pathway Homes. While new to Central Florida, it was established in 1980 and has long track record of successfully addressing the most challenging issues connected to homelessness. Already a leader in Northern Virginia, the Homeless Impact Fund at the Central Florida Foundation sought them out for counsel in 2014 to assist in the transition to permanent supportive housing in Central Florida. Pathway Homes brought national best practices to address the critical homelessness issue in Central Florida.

In 2015, Pathway Homes of Florida began providing homeless services in Central Florida and the community recognizes Pathway Homes as a gold standard model of care for the region. In recognition of their impact to date and potential to further help the most vulnerable in the region, we respectively recommend Pathway Homes of Florida for investment consideration. The Central Florida Foundation's Homeless Impact Fund provided capital to drive community collaboration over the past five years and knows first hand the positive difference Pathway Homes of Florida has made in the lives of hundreds of chronically homeless individuals in the pilot.

In order to continue to expand, Pathway Homes requires additional community partners to invest in this critical work. Your investment in Pathway Homes of Florida would align with the community's impactful investment strategies in support of our community goal to eradicate homelessness.

Sincerely,

Mark Brewer
President/CEO
Charter Advisor in Philanthropy
Central Florida Foundation

Pathway Homes of Florida
Balance Sheet
As of 11/30/2019

	Current Year
Assets	
Current Assets	
Cash and Cash Equivalents	51,484.78
Accounts Receivable	402.00
Program Fees Receivable	255,300.65
Security Deposits	2,000.00
Total Current Assets	309,187.43
Property and Equipment	
Fixed Assets	30,604.40
Accumulated Depreciation	(10,930.20)
Total Property and Equipment	19,674.20
Total Assets	328,861.63
Liability and Net Assets	
Current Liabilities	
Accounts Payable and Accrued Expenses	179.96
Deferred Revenue	5,000.00
Due To (From) other Funds	306,882.04
Total Current Liabilities	312,062.00
Net Assets	
Beginning Net Assets	(14,346.18)
Change in Net Assets	31,145.81
Total Net Assets	16,799.63
Total Liability and Net Assets	328,861.63

Accounts Receivable - Government		
Bridge Housing	$	13,795.32
City of Orlando	$	21,310.25
Community Investment	$	-
Orange County	$	196,993.91
Osceola County	$	13,336.67
Seminole County	$	9,864.50
Welcome Home Campaign	$	-
Utilities	$	-
Other Receivables	$	-
	$	255,300.65

Revenue

Contract Funds	4100	349,730.27	✻
Total Revenue		349,730.27	

Expenditures

Telephone & Cable Expense	6313	3,925.43
Training Expenses	6418	1,251.33
Professional Liability Insurance	6430	150.40
Vehicle Insurance	6431	1,120.70
Electricity	6450	1,448.20
Water	6451	212.62
Office Rent	6456	10,500.00
Staff Mileage Expenses	6560	14,812.20
Equipment Not Capitalized	6596	2,470.31
Depreciation Expenses	6600	1,821.70
Property Liability Insurance	6720	24.60
Fees, Licenses & Permits	6790	1,225.00
Client emergency, supplies, transportation	6952	26,387.79
Payroll	9000	211,896.77
Payroll Tax Expense	9200	15,888.21
Health Insurance	9400	33,687.06
Life Insurance	9450	619.50
Dental Insurance	9470	1,950.76
FL Employment Tax	9510	276.59
Workmen's Compensation	9600	1,996.83
Contract/Project Manager	9700	665.10
Administrative	9705	240.98
Accrued Compensated Leave	9800	(13,987.62)
Total Expenditures		318,584.46

Change in Net Assets	31,145.81

Less:

Accrued Compensated Leave reversed at July 1, 2019	13,987.62
	17,158.19

Orlando Community Investment Fund pay
quarterly advances $15,000

	Contract Income
Bridge Housing	$ 35,517.09
City of Orlando	$ 25,000.00
Community Investment	$ 238,038.71
Orange County	$ 25,056.22
Osceola County	$ 26,118.25
Seminole County	$ -
Welcome Home Campaign	$ -
Utilities	$ -
Other Receivables	$ 349,730.27

From: Martha Are <martha.are@hsncfl.org>
Sent: Monday, December 16, 2019 1:29 PM
To: Sylisa Lambert-Woodard
Subject: Ransomware

Hey Sylisa-

I'm not sure why the text wouldn't work, so I'm sending an email through my phone (all day that's safe) to confirm that our server has been frozen by ransomware. We are trying to figure out how to move forward but I am sure that payment processing will be delayed. I will keep you posted and appreciate your patience while we figure this out.

Feel free to call my cell with any questions

Martha
--

Martha Are | CEO

Ph: (407) 893 - 0133 x602

Cel: (919) 559 - 6193

Fax: (407) 893 - 5299

4065 L.B. McLeod Rd, Suite D

Orlando, FL 32811

www.hsncfl.org | www.centralfloridacoc.org

Malware

What is ransomware and how to help prevent ransomware attacks

Written by Alison Grace Johansen for NortonLifeLock

The idea behind ransomware, a form of malicious software, is simple: Lock and encrypt a victim's computer or device data, then demand a ransom to restore access.

In many cases, the victim must pay the cybercriminal within a set amount of time or risk losing access forever. And since malware attacks are often deployed by cyberthieves, paying the ransom doesn't ensure access will be restored.

Ransomware holds your personal files hostage, keeping you from your documents, photos, and financial information. Those files are still on your computer, but the malware has encrypted your device, making the data stored on your computer or mobile device inaccessible.

While the idea behind ransomware may be simple, fighting back when you're the victim of a malicious ransomware attack can be more complex. And if the attackers don't give you the decryption key, you may be unable to regain access to your data or device.

Knowing the types of ransomware out there, along with some of the dos and don'ts surrounding these attacks, can go a long way toward helping protect yourself from becoming a victim of ransomware.

Types of ransomware

Ransomware attacks can be deployed in different forms. Some variants may be more harmful than others, but they all have one thing in common: a ransom. Here are seven common types of ransomware.

- **Crypto malware**. This form of ransomware can cause a lot of damage because it encrypts things like your files, folders, and hard-drives. One of the most familiar examples is the destructive 2017 WannaCry ransomware attack. It targeted thousands of computer systems around the world that were running Windows OS and spread itself within corporate networks globally. Victims were asked to pay ransom in Bitcoin to retrieve their data.

- **Lockers**. Locker-ransomware is known for infecting your operating system to completely lock you out of your computer or devices, making it impossible to access any of your files or applications. This type of ransomware is most often Android-based.

- **Scareware**. Scareware is fake software that acts like an antivirus or a cleaning tool. Scareware often claims to have found issues on your computer, demanding money to resolve the problems. Some types of scareware lock your computer. Others flood your screen with annoying alerts and pop-up messages.

- **Doxware**. Commonly referred to as leakware or extortionware, doxware threatens to publish your stolen information online if you don't pay the ransom. As more people store sensitive files and personal photos on their computers, it's understandable that some people panic and pay the ransom when their files have been hijacked.

- **RaaS**. Otherwise known as "Ransomware as a service," RaaS is a type of malware hosted anonymously by a hacker. These cybercriminals handle everything from distributing the ransomware and collecting payments to managing decryptors — software that restores data access — in exchange for their cut of the ransom.

- **Mac ransomware**. Mac operating systems were infiltrated by their first ransomware in 2016. Known as KeRanger, this malicious software infected Apple user systems through an app

called Transmission, which was able to encrypt its victims' files after being launched.

- **Ransomware on mobile devices**. Ransomware began infiltrating mobile devices on a larger scale in 2014. What happens? Mobile ransomware often is delivered via a malicious app, which leaves a message on your device that says it has been locked due to illegal activity.

The origins of ransomware

How did ransomware get started? While initially targeting individuals, later ransomware attacks have been tailored toward larger groups like businesses with the intent of yielding bigger payouts. Here are some notable dates on the ransomware timeline that show how it got its start, how it progressed, and where ransomware is now.

- **PC Cyborg, also known as the AIDS Trojan, in the late 1980s**. This was the first ransomware, released by AIDS researcher Joseph Popp. Popp carried out his attack by distributing 20,000 floppy disks to other AIDS researchers. Little did the researchers know, these disks contained malware that would encrypt their C: directory files after 90 reboots and demand payment.

- **GpCode in 2004**. This threat implemented a weak form of RSA encryption on victims' personal files until they paid the ransom.

- **WinLock in 2007**. Rather than encrypting files, this form of ransomware locked its victims out of their desktops and then displayed pornographic images on their screens. In order to remove the images, victims had to pay a ransom with a paid SMS.

- **Reveton in 2012**. This so-called law enforcement ransomware locked its victims out of their desktops while showing what appeared to be a page from an enforcement agency such as the FBI. This fake page accused victims of committing crimes and told them to pay a fine with a prepaid card.

- **CryptoLocker in 2013**. Ransomware tactics continued to progress, especially by 2013 with this military-grade encryption that used key storage on a remote server. These attacks infiltrated over 250,000 systems and reaped $3 million before being taken offline.

- **Locky in 2016**. So-called Locky ransomware used social engineering to deliver itself via email. When it was first released, potential victims were enticed to click on an attached Microsoft Word document, thinking the attachment was an invoice that needed to be paid. But the attachment contained malicious macros. More recent Locky ransomware has evolved into the use of JavaScript files, which are smaller files that can more easily evade anti-malware products.

- **WannaCry in 2017**. These more recent attacks are examples of encrypting ransomware, which was able to spread anonymously between computers and disrupt businesses worldwide.

- **Sodinokibi in 2019**. The cybercriminals who created this ransomware used managed service providers (MSPs) like dental offices to infiltrate victims on a larger scale.

Ransomware remains a popular means of attack, and continues to evolve as new ransomware families are discovered.

Who are the targets of ransomware attacks?

Ransomware can spread across the Internet without specific targets. But the nature of this file-encrypting malware means that cybercriminals also are able to choose their targets. This targeting ability enables cybercriminals to go after those who can — and are more likely to — pay larger ransoms.

Here are four target groups and how each may be impacted.

- **Groups that are perceived as having smaller security teams**. Universities fall into this category because they often have less security along with a high level of file-sharing.

- **Organizations that can and will pay quickly**. Government agencies, banks, medical facilities, and similar groups constitute this group, because they need immediate access to their files — and may be willing to pay quickly to get them.

- **Firms that hold sensitive data**. Law firms and similar organizations may be targeted, because cybercriminals bank on the legal controversies that could ensue if the data being held for ransom is leaked.

- **Businesses in the Western markets**. Cybercriminals go for the bigger payouts, which means targeting corporate entities. Part of this involves focusing on the United Kingdom, the United States, and Canada due to greater wealth and personal-computer use.

Dos and don'ts of ransomware

Ransomware is a profitable market for cybercriminals and can be difficult to stop. Prevention is the most important aspect of protecting your personal data. To deter cybercriminals and help protect yourself from a ransomware attack, keep in mind these eight dos and don'ts.

1. **Do use security software**. To help protect your data, install and use a trusted security suite that offers more than just antivirus features. For instance, Norton 360 With LifeLock Select can help detect and protect against threats to your identity and your devices, including your mobile phones.

2. **Do keep your security software up to date**. New ransomware variants continue to appear, so having up-to-date internet security software will help protect you against cyberattacks.

3. **Do update your operating system and other software**. Software updates frequently include patches for newly discovered security vulnerabilities that could be exploited by ransomware attackers.

4. **Don't automatically open email attachments**. Email is one of the main methods for delivering ransomware. Avoid opening emails and attachments from unfamiliar or untrusted sources. Phishing spam in particular can fool you into clicking on a legitimate-looking link in an email that actually contains malicious code. The malware then prevents you from accessing your data, holds that data hostage, and demands ransom.

5. **Do be wary of any email attachment that advises you to enable macros to view its content**. Once enabled, macro malware can infect multiple files. Unless you are absolutely sure the email is genuine and from a trusted source, delete the email.

6. **Do back up important data to an external hard drive**. Attackers can gain leverage over their victims by encrypting valuable files and making them inaccessible. If the victim has backup copies, the cybercriminal loses some advantage. Backup files allow victims to restore their files once the infection has been cleaned up. Ensure that backups are protected or stored offline so that attackers can't access them.

7. **Do use cloud services**. This can help mitigate a ransomware infection, since many cloud services retain previous versions of files, allowing you to "roll back" to the unencrypted form.

8. **Don't pay the ransom**. Keep in mind, you may not get your files back even if you pay a ransom. A cybercriminal could ask you to pay again and again, extorting money from you but never releasing your data.

With new ransomware variants appearing, it's a good idea to do what you can to minimize your exposure. By knowing what ransomware is and following these dos and don'ts, you can help protect your computer data and personal information from being ransomware's next target.

Don't let ransomware hold your data hostage

Norton 360™ helps protect against ransomware attacks. Add a layer of protection to your data and device.

You'll be covered by our Virus Protection Promise[2] to help remove any virus or your money back. Try Norton 360.

Learn More

Editorial note: Our articles provide educational information for you. Norton LifeLock offerings may not cover or protect against every type of crime, fraud, or threat we write about. Our goal is to increase awareness about cyber safety. Please review complete Terms during enrollment or setup. Remember that no one can prevent all identity theft or cybercrime, and that LifeLock does not monitor all transactions at all businesses.