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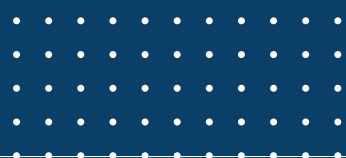
BEST PRACTICES PAPER

Achieving High Email Deliverability in Healthcare

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Why High Email Deliverability is Essential for Healthcare Companies

Playing a crucial role in key administrative tasks, patient engagement efforts, education campaigns, and marketing, email remains one of the most essential communication channels in the healthcare industry. However, effectively harnessing the wide reach and versatility of email communication is dependent on achieving high deliverability, meaning your email actually lands in the inbox of your targets.

First and foremost, high email deliverability is essential for ensuring that communications support and underpin an individual's healthcare journey, such as appointment reminders, prescription confirmations, test results, explanations of benefits, and invoices, and that they arrive reliably and on time. When email communications are misdelivered, misplaced, delayed, or blocked, patients are less equipped to make informed decisions related to their healthcare, and healthcare companies miss out on opportunities to better engage them.

Similarly, when it comes to marketing and educational campaigns, high email deliverability means better inbox placement, leading to higher open and click-through rates, and, ultimately, better-performing campaigns. Higher deliverability ensures emails end up in the intended recipient's inbox, giving them access to products, services, and advice to better drive favorable healthcare outcomes.

At the same time, emails containing patient data, i.e., protected health information (PHI), must be securely delivered to the intended recipient, as per Health Insurance Portability and Accountability Act (HIPAA) regulations. Consequently, if an email containing ePHI fails to reach its intended recipient, or worse, reaches an unintended recipient, that's a failure in secure communications and a potential HIPAA violation for the sender.

With these important factors in mind, LuxSci has compiled this high email deliverability Best Practices Paper, in which we discuss the importance of distinguishing between the different types of email messaging in healthcare, and strategies for achieving high deliverability for all your email communications.

Distinguishing Between Different Types of Email: Transactional, Marketing, and Educational

A fundamental, yet often overlooked, aspect of ensuring high email deliverability is understanding the different types of email messaging used by your healthcare organization. Because different kinds of emails serve distinct purposes, achieving high deliverability for each requires different considerations and implementation, including your security posture.

Let's look at three types of email in healthcare – transactional, marketing, and educational – and what you should consider to ensure high deliverability and optimal engagement for each.

Transactional Emails

A transactional email is a message corresponding to a previous interaction between a healthcare organization and an individual. A patient or customer usually triggers the delivery of a transactional email with a specific action, such as booking an appointment or receiving care, with the transactional email acting as confirmation or follow up.

Examples of transactional emails include:

- **Appointment confirmations**
- **Order confirmations**
- **Test results**
- **Explanation of Benefits (EOB) notices**
- **Payment reminders**
- **Order updates and shipping notifications**
- **Transaction receipts**
- **Password resets and security notifications**

High deliverability of transactional emails ensures the timely communication of important information between individuals and healthcare companies, and helps speed processes and improve efficiency. Patients are better able to keep up to date with the different aspects of their healthcare journey, empowering them to remain involved and more proactive in the pursuit of better health outcomes.

For healthcare organizations, meanwhile, more informed and proactive patients can reduce missed appointments, unpaid bills, confusion over provision and coverage, and other issues that stem from poor communication. Over time, improved communications and increased engagement lead to better healthcare journeys, lower costs, and, ultimately, higher patient satisfaction levels.

Transactional Email Infrastructure Considerations For High Deliverability

- **High Speed and Low Latency Servers:** optimized for high IOPS (input/output operations per second) and minimal processing delays to ensure near-instant delivery.

- **Dedicated IPs for Transactional Emails:** marketing and education communications, in contrast to transactional messages, are often sent out in high volume, which can result in throttling, rate limiting, or being labeled as spam. A dedicated IP separates the transmission of transactional emails from other communications, helping healthcare organizations to preserve their sender reputation and boost deliverability.

- **Retry Capabilities:** protocols for attempting to retransmit messages in the event of temporary issues, such as rate-limiting or server unavailability.

Marketing Emails

Marketing emails contain content designed to influence the recipient into taking a particular action, such as purchasing a product or signing up for a service or treatment.

Examples of healthcare marketing emails include:

- **New product or service launches and upgrades**
- **Promotions and special offers**
- **Customer reviews and testimonials**
- **Re-engagement messages (e.g., "We Miss You!...")**
- **New plan enrollments**
- **Newsletters and brand communications**

High deliverability of marketing emails helps drive a greater number of intended, favorable outcomes, whether converting email leads into sales, signing up new and existing health plan members, launching new products and services, etc.

While healthcare organizations boost revenues and achieve growth, patients and customers get greater exposure to products and services that benefit their health and enhance their quality of life. Subsequently, patients and customers maintain a better awareness of different aspects of their healthcare journey, empowering them to be more involved.

Marketing Email Infrastructure Considerations For High Deliverability

- **High Volume:** as they can potentially be sent out to large quantities of people, marketing email campaigns require a higher throughput compared to transactional emails, i.e., the amount of messages that can be sent at a given time.

- **Queueing and Throttling:** marketing email infrastructure must prevent sending surges that could overload recipient servers and adversely affect sender reputation. Throttling manages the amount of messages sent out by the server, while queueing ensures they are transmitted in a controlled flow, as opposed to huge bursts.

- **Integration and automated workflows:** as marketing emails often leverage and contain patient data from other systems, including customer data platforms (CDPs) and EHR systems, the ability to easily integrate your marketing email platform with other tools is critical. This includes enabling automated workflows that are based on steps and actions related to each recipient, increasing your chances of reaching and connecting with your intended targets.

Educational Emails

Educational emails are designed to increase a patient's knowledge, medical vocabulary, and overall understanding of their present state of health and how to improve it. Organizations can use educational messaging in a wide variety of situations and for a range of purposes, which makes them an effective tool for consistent healthcare engagement.

Examples of educational emails include:

- **Wellness programs**
- **Screening recommendations**
- **Preventative care communications**
- **Medication adherence instructions**
- **Chronic care management advice**
- **Event invitations or webinars**
- **Health alerts**

Being similar in both intention and scale to marketing emails, educational messages require similar infrastructure considerations, namely, the ability to deliver high volumes of messages, queueing and throttling management capabilities, separate IP addresses from transactional emails, and data integration to reach the right targets with the right messages.

Average Conversion Rates for Different Types of Healthcare Emails

When it comes to email types and conversion rates, the numbers often vary. Here's a brief overview of the average typical conversation rates for transactional, marketing, and educational emails, as well as other common types of emails sent out by healthcare organizations:

Email Type	Typical CTA	Average Conversion Rate
Transactional Emails (e.g., appointment reminders, EOBs, refill notices)	**Confirm, pay, schedule**	**8–15%**
Educational Emails (e.g., wellness tips, preventative care, treatment guidance)	**Click to read, enroll, learn more**	**3–6%**
Marketing Emails (e.g., health service promotions, new product offers)	**Buy, sign up, upgrade**	**2–5%**
Patient Portal Activation & Enrollment	**Register, log in**	**5–10%**
Health Plan Member Onboarding	**Complete sign up, choose plan**	**4–8%**

How to Achieve High Email Deliverability

Now that we've discussed its importance and some of the key factors involved in achieving high email deliverability for the different types of healthcare emails, let's discuss some of the key strategies for ensuring healthcare emails securely reach the intended recipient.

Establish Secure and Reliable Email Infrastructure

The first key strategy for ensuring high deliverability is implementing the right infrastructure, accounting for the different types of emails your company intends to send out.

As detailed earlier, it's best practice to isolate your transactional messaging traffic from your higher volume marketing and educational email, through the use of dedicated IPs. This separation helps maintain a strong sender reputation for the deliverability of time-sensitive healthcare messages.

Finally, employ a dedicated cloud infrastructure email solution, such as LuxSci, to isolate and protect your data, and ensure that your performance is not degraded or compromised due to shared cloud resources.

Implement an IP Warm-Up Process

Depending on the scale of your email campaign, you might undertake a 'warm-up' process, which involves gradually increasing the number of emails sent from a new IP to build your sender reputation with email service providers (ESPs). As new IPs have no history and, consequently, no sender reputation, a sudden surge in outgoing messages can trigger spam filters or result in blacklisting. Implementing a warm-up process demonstrates that your IP is credible and trustworthy.

The first step in a warm-up process is sending a limited number of emails, with 50–100 being a common starting point, to your most engaged patients or customers, i.e., those that open emails most consistently, opened emails recently, have clicked on links, etc. From there, gradually increase the number of sent emails over a few weeks until you reach your desired volume.

The table below offers an example of a first-week warm-up timeline for an email engagement campaign on a new IP address:

Day	Emails Sent	Audience
1	100	Highly engaged
2	250	Highly engaged
3	500	Highly engaged
4	1,000	Active contacts
5	2,000	Longer-term contacts
6	4,000	Longer-term contacts
7	8,000	All contacts

As you ramp up the number of emails you send to your target contacts, it's critical to monitor key metrics, such as opens, click-throughs, bounce rates and spam complaints, and adjust the volume accordingly.

LuxSci throttles email sending on an hourly basis and gradually increases volume over time. For example, on Day 1, you send 20 emails per hour, then on Day 2 the volume increases to 40 emails per hour, and so on.

Maintain Sender Reputation

Your sender reputation is your standing with ESPs, such as Gmail, Apple Mail, Outlook and Yahoo, and the likelihood of them permitting your emails to reach their users' inboxes, as opposed to being bounced or flagged as spam. Your sender reputation is chiefly determined by your domain, the IP addresses used to send out emails, and the quality of messages. Acquiring a poor sender reputation can result in messages being delivered to spam folders and blacklisting, lowering email deliverability and hurting your brand reputation.

A key part of maintaining your sender reputation is practicing good list hygiene, i.e, removing invalid or inactive email addresses to reduce bounces, spam complaints, and unsubscribes. Regularly filtering your mailing list gradually narrows it down to relevant prospects, which both helps increase the chance of engagement and preserves your sender reputation.

Correctly Configure Your Email Server's Authentication Protocols

Properly configuring your company's email authentication protocols is essential for high deliverability, as this allows recipients' servers to verify that your messages genuinely come from you, as opposed to malicious actors impersonating your domain. Without authentication, i.e., configuring your Domain Name System (DNS) settings to tell receiving mail servers how to handle messages from your domain, your messages are more likely to be flagged as spam or rejected by ESPs, diminishing your deliverability rate.

The three essential email authentication protocols are as follows:

- **Sender Policy Framework (SPF**): specifies which mail servers are authorized to send emails on your behalf. This helps prevent spoofing and helps recipient servers validate the sender's legitimacy.

- **DomainKeys Identified Mail (DKIM):** adds a digital signature to each email, allowing the receiving server to confirm that messages haven't been compromised and genuinely come from the sender's domain.

- **Domain-based Message Authentication, Reporting & Conformance (DMARC):** builds on SPF and DKIM by telling receipt email servers what to do when authentication fails (e.g., to quarantine or reject the email). DMARC also provides reporting for monitoring misuse of your domain.

Include Transparent Unsubscribe Mechanisms

Providing an easy, visible way for recipients to unsubscribe from your marketing and educational emails, such as a 'one-click unsubscribe' option, underscores your credibility and bolsters your sender reputation. Making it easy for recipients to unsubscribe allows those who aren't interested in hearing from you to remove themselves from your list, maintaining its quality.

Additionally, an opt-out mechanism helps your company comply with several frameworks, including the CAN-SPAM Act, GDPR, and HIPAA.

Create Engaging Email Content

While we've largely honed in on the technical aspects of achieving high deliverability, in the case of marketing and educational emails, it's important to create high-quality content that will be of value to the recipient. For high deliverability in the long term, you want your recipients to recognize you as credible enough to open your emails, or better still, look forward to them landing in their inbox.

First, this requires taking the time and attention to avoid common mistakes that trigger spam filters, such as:

- **Poor formatting: inconsistent spacing, over-capitalization**
- **'Spammy' subject lines: trigger words (e.g, free, win, etc.), exclamation marks**
- **Too many images**
- **Too many links**

Second, segment recipients into groups according to commonalities in their PHI, such as shared medical conditions, lifestyle factors (e..g, smokers), or demographics (age, gender, etc.). This allows you to clarify your marketing or patient education efforts, creating content and materials designed for a specific group of people. This greatly increases the relevancy of an email to its target audience, enhancing the likelihood of successful engagement.

Finally, with a secure, HIPAA-compliant email solution, such as LuxSci, you can safely include PHI in your emails to personalize messages and improve engagement even further.

Continuously Monitor Deliverability and Performance

Aim to increase your email deliverability, refine the efficacy of your messaging, and, ultimately, maximize engagement with patients and customers by monitoring your deliverability stats and the performance of your email campaigns at all times. Generate reports from the real-time tracking features of your email delivery platform to determine how many emails are being opened, bounced, reported as spam, replied to, clicked, failed to deliver, etc. This not only allows you to maintain good list hygiene but also determines which aspects of your email communication are effective and which need improvement, so you can refine them accordingly.

How High Deliverability Drives Up Results

Increasing your email deliverability rate by 5-10 percent can have a huge impact on your campaign results. Combining high deliverability with the use of secure PHI to personalize your emails takes it a step further, driving up open rates and conversions. As a result of this powerful combination, you can quickly see how you can take your healthcare email campaign performance to a whiole new level in the example below:

Health Plan Annual Enrollments

Metric	Low Deliverability	High Deliverability
Email deliverability rate	90%	98%
Annual Health Plan Enrollments Emails Sent	5,000,000	5,000,000
Emails Delivered	4,500,00	4,900,000
Email Open Rate	33%	38%
Emails Opened	1,485,000	1,859,550
Click Through Rate (CTR)	3%	4%
Email Clicks	44,550	66,944
Current Conversion Rate	4%	5%
Current # of Enrollments Converted	1,782	3,213
Increase in Enrollments Per Campaign		80%

LuxSci – Best-In-Class Email Deliverability

Best-in-Class Deliverability is a joint effort between LuxSci and its customers.

Dedicated IPs → LuxSci provides dedicated IPs, managing the warm-up process and ensuring IPs are not 'polluted' from previous use by small customers or spammers.

LuxSci provides the following:

- **Proven reverse DNS management**
- **SPF, DMARC, DKIM authentication protocols**
- **Proper bounce email address management, aligned with SPF / DKIM / DMARC**
- **Spam Feedback loop processing**
- **Options for sending rate throttling as well as queuing and retrying over time as needed**
- **CAN-SPAM and GDPR compliance**
- **Transparent unsubscribe mechanisms (like one-click unsubscribes)**

With more than 20 years of experience, LuxSci is a leading provider of secure healthcare communications solutions.

LuxSci's suite of HIPAA-compliant solutions are used by nearly 2,000 customers throughout the healthcare industry, including athenahealth, 1800 Contacts, Delta Dental, Lucerna Health, Hinge Health, US HealthConnect, Eurofins, and Rotech Healthcare. With more than 20 billion emails sent, our customers have seen deliverability rates of up to 98% or more.

LuxSci's comprehensive HIPAA-compliant communications solutions include:

Secure High Volume Email: send millions of secure emails in enterprise-level marketing and educational campaigns, featuring:

- Separate IPs and infrastructure configurations for high-volume marketing and transactional email
- Dedicated clusters and custom configurations for enterprises with high throughput and performance needs.
- Highly scalable architecture that grows dynamically to meet demand and campaign size
- Flexible automated encryption for secure email transmission and the safeguarding of patient data
- Real-time tracking and analytics for proactive deliverability management

Secure Marketing: personalize email messaging for increased engagement and higher conversion rates:

- Automated workflow integration for better healthcare journeys and reduced administrative overhead
- Real-time tracking to monitor campaign performance and ongoing refinement
- Hyper-segmentation and filtering tools for enhanced targeting and maintaining list hygiene

Secure Text Messaging: reach patients quickly and securely with appointment reminders, health updates, and other communications via text messages linked to a secure customer or patient portal.

Secure Forms: safely collect, store, access and analyze PHI data from patients to optimize workflows and generate insights that allow you to refine your long-term strategies.

To learn more about how LuxSci can help your organization boost its email deliverability, ensure secure and HIPAA-compliant digital communication, and achieve its overall growth objectives, contact us today.

Email us at:
sales@luxsci.com

Call us on:
+1 800 441 6612

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