



FREE WHITEPAPER

NPI-Verified Targeting

A Methodology for Matching Provider
Identity to Marketing-Ready Contacts

WRITTEN BY

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October 2026 Edition
MEDICALPROSPECTS.COM

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ABOUT THIS WHITEPAPER

This MedicalProspects whitepaper explains how the National Provider Identifier solves identity drift in healthcare marketing data, what the NPI registry does and does not provide, and the six-step methodology MedicalProspects uses to build verified, marketing-ready records around each NPI.



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The short version

This MedicalProspects whitepaper explains how the National Provider Identifier solves identity drift in healthcare marketing data, what the NPI registry does and does not provide, and the six-step methodology MedicalProspects uses to build verified, marketing-ready records around each NPI.

KEY TAKEAWAYS

- **Identity drift** is the root cause of poor healthcare data: moves, name collisions, title-based specialty and retirements.
- **The NPI is a lifetime identity anchor**, but the registry has no verified emails and its addresses are self-reported.
- **A six-step method** builds marketing-ready records around the NPI and re-checks them on a schedule.
- **NUCC taxonomy codes** separate general cardiologists from electrophysiologists in a way job titles cannot.
- **The NPI is a shared key** that joins marketing data to CRM, prescriber and credentialing data.
- **A buyer's checklist** tells real NPI verification from an NPI column copied from NPPES.

EXECUTIVE SUMMARY



Executive Summary

Healthcare marketing data fails when a contact record loses its link to the real provider behind it. Names repeat, titles are self-reported, practices move and specialties get mislabeled. Each mismatch wastes an email, a call or a sales rep's afternoon.

The National Provider Identifier (NPI) fixes the identity problem. Every U.S. healthcare provider who bills electronically has one 10-digit number for their whole career. It stays the same when they change jobs, cities or employers. Anchoring each marketing record to an NPI means the vendor always knows *who* the record is about, even when every other detail changes.

But the NPI registry alone is not marketing data. It has no verified business emails, its addresses are self-reported, and many records are out of date. NPI-verified targeting means building a marketing-ready record *around* the NPI, then checking it against independent sources on a fixed schedule.

9.49M

total records in the federal NPI registry (April 2026)

NPPES via Brown CODIAC¹

7.24M

individual (Type 1) NPIs

NPPES via Brown CODIAC¹

1.92M

organization (Type 2) NPIs

NPPES via Brown CODIAC¹

340,360

deactivated records still in the file

NPPES via Brown CODIAC¹

This paper explains:

- Why identity drift is the root cause of poor healthcare data
- What the NPI registry provides, and where it falls short
- The step-by-step methodology MedicalProspects uses to link NPI identity to verified contacts
- How taxonomy codes give specialty precision that job titles cannot
- How monthly re-verification keeps records accurate
- What buyers should ask any vendor that claims "NPI-verified" data

SECTION 1

01

The NPI Registry in Numbers

The scale of the registry shows both its value and its limits.

Measure	Figure (file through April 12, 2026)
Total NPI records	9,494,438
Active records	9,154,078
Deactivated records	340,360
Individual providers (Type 1)	7,236,712
Organizations (Type 2)	1,917,366

Source: Brown University CODIAC analysis of the NPPES full file.¹ Because providers must report changes within 30 days,² the registry is the best available anchor for identity. Whether providers actually keep every field current is a separate matter, and the reason cross-checking matters.

The Problem: Identity Drift

Identity drift is the gap that opens between a contact record and the real person it describes. In healthcare it opens quickly, because providers' working lives change often.

IN THIS CHAPTER

- Five common ways records drift
- What drift costs

Five common ways records drift

- 1. Practice moves.** A physician leaves a private practice to join a health system. The old email bounces, or worse, reaches a colleague who has taken over the inbox.
- 2. Name collisions.** Many providers share common names. Without a unique ID, records for two different physicians can merge into one, or one physician can be counted twice.
- 3. Title-based specialty.** A record lists "cardiology" because a title said so, although the provider is a general internist in a cardiology group.
- 4. Retirement and deactivation.** Providers retire or lose their licences, but their records stay on lists that are never re-checked.
- 5. Consolidation.** Hospital mergers and practice acquisitions change affiliations, email domains and buying authority across thousands of records at once.

▶ ONE PHYSICIAN, THREE RECORDS (ILLUSTRATIVE)

A cardiologist appears on one list under "Dr. J. Smith" at her old practice, on another as "Jane Smith, MD" at the hospital she joined last year, and on a third as "J Smith" with a retired colleague's email. Without a shared identifier the three look like three people. With the NPI, they resolve to one provider, and the verified current details replace the old ones.

What drift costs

- **Deliverability:** hard bounces damage your sending domain's reputation, so even your good emails reach fewer inboxes.
- **Wasted segments:** a specialty campaign that includes the wrong specialties dilutes its message and its results.
- **Sales time:** reps research and call contacts who left months ago.
- **Bad analytics:** duplicate and merged records distort reach, response and attribution reports.

The fix is not to collect more data. It is to tie every record to an identifier that does not drift, and then re-check everything else against it.

KEY TAKEAWAYS

- Identity drift is the gap between a record and the real person it describes.
- It comes from practice moves, name collisions, title-based specialty, retirement and consolidation.
- The cure is an identifier that does not drift, plus scheduled re-checks of everything else.

What the NPI Registry Is, and What It Is Not

The NPI is a unique 10-digit identifier issued by the Centers for Medicare & Medicaid Services (CMS) under HIPAA's administrative simplification rules. CMS publishes the records through the National Plan and Provider Enumeration System (NPPES) and its public NPI Registry.

IN THIS CHAPTER

- What the registry gives you, and what it doesn't
- Why registry data alone goes stale

There are two types:

- **Type 1 (individual):** physicians, nurse practitioners, dentists, pharmacists, therapists and other individual providers
- **Type 2 (organization):** hospitals, group practices, clinics, pharmacies, labs and other healthcare organizations

What the registry gives you, and what it doesn't

The NPI registry provides	The NPI registry does not provide
A permanent, unique ID that stays with the provider for life	Verified business email addresses
Provider name and credentials	Direct dial phone numbers
Taxonomy codes, including a primary specialty	Confirmation that the listed address is current

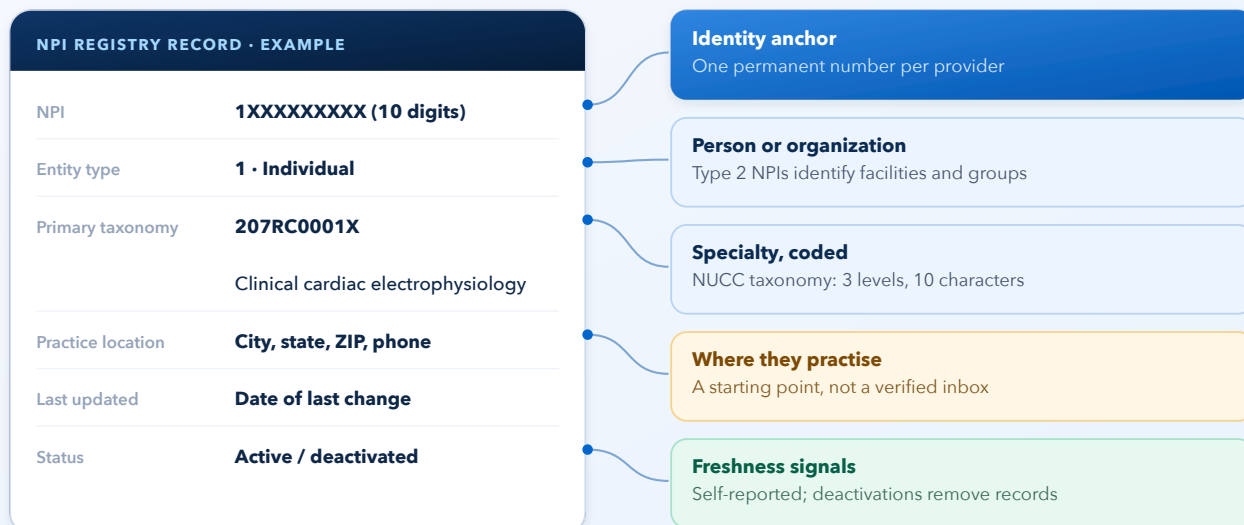
The NPI registry provides	The NPI registry does not provide
Practice location and mailing address, as reported by the provider	Health system or group affiliations
Enumeration and deactivation dates	Job role, seniority or buying authority
Organization records for facilities	Technology in use, bed size or organization scale

Why registry data alone goes stale

NPPES data is self-reported. Providers are required to report changes within 30 days, but many update their records only when billing or credentialing forces them to. A registry address can therefore trail a provider's real location by months or years.

Anatomy of an NPI record

Taxonomy code shown is a real NUCC code; other values are placeholders



What the registry does not hold: verified business email, direct dial, buying role or current employer.

Anatomy of an NPI record: what it contains and what it does not

The registry is the ideal **identity anchor**. It is not a finished marketing record. Everything a campaign needs, such as a working email, a current practice and an affiliation, has to be added and verified around it.

The MedicalProspects Verification Methodology

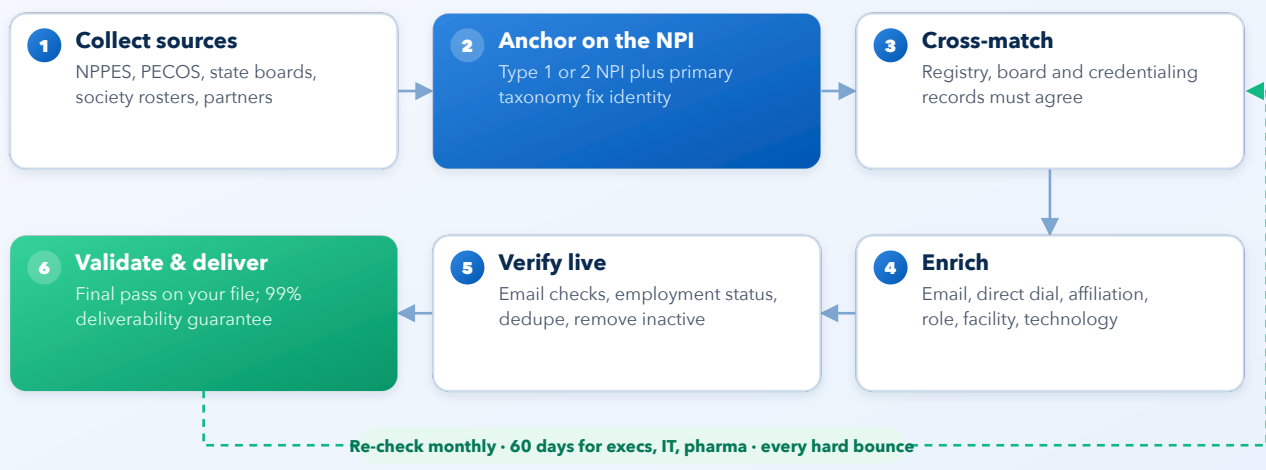
MedicalProspects builds each U.S. clinical record in six steps, with the NPI as the fixed point. Records then loop back through cross-source matching on a set schedule, so verification never stops at delivery.

IN THIS CHAPTER

- What cross-matching catches

Every record is built around a verified NPI

Then re-checked on a schedule



Every record is built around a verified NPI, then re-checked on a schedule

- 1. Collect sources.** Records come from the CMS NPPES/NPI registry, CMS PECOS, state medical, nursing, dental and pharmacy boards, medical society rosters, and premium publication and event partners. In total that is 120+ verified source channels, and never simple directory scraping.
- 2. Anchor on the NPI.** Each clinical record is tied to a Type 1 (individual) or Type 2 (organization) NPI and its taxonomy code. This sets who the record is about and what specialty they practise.
- 3. Cross-match independent sources.** A physician's identity, specialty and practice location must agree across at least three sources (the NPI registry, the state board and hospital credentialing records) before the record enters the database.
- 4. Enrich for outreach.** Verified business email, direct dial, health system affiliation from PECOS, role, facility size and technology in use are added around the anchor.
- 5. Verify live.** Before export, records pass real-time SMTP email validation, active-employment confirmation, affiliation checks, deduplication and removal of retired or inactive records.
- 6. Validate and deliver.** Every file gets a final deliverability and completeness pass before it ships within 24-48 hours. That pass is what supports the 99% deliverability guarantee with 1:1 hard-bounce replacement.

★ AUDIT THE ANCHOR

Ask any vendor to include the NPI in the delivered file. Then look up a sample of NPIs in the public registry and confirm that name, taxonomy and location match. A record you cannot audit is a record you cannot trust.

When an audience is too small. If verified records fall short of the volume a campaign needs, researchers source and verify additional providers from licensing boards, association registries, health system directories and practice websites.

What cross-matching catches

Check	A mismatch means	Typical action
NPI registry vs. state licensing board	Name, status or specialty disagree	Hold the record; investigate
NPI registry vs. practice location sources	Practice address differs	Prefer the most recent verified source
NPI status	Deactivated or inactive	Remove from files
Email domain vs. affiliation	Email belongs to a former employer	Re-verify or replace
Duplicate NPIs across lists	Same provider counted twice	Merge to one record

KEY TAKEAWAYS

- Six steps build every record: collect, anchor, cross-match, enrich, verify and validate.
- Records that do not verify across sources are held or removed, not guessed.
- The verification loop continues after delivery.

Taxonomy Codes and Specialty Precision

Specialty is the most valuable targeting field in healthcare, and the one most often wrong. Taxonomy codes fix this by replacing free-text titles with a standard classification.

IN THIS CHAPTER

- Why codes beat titles
- Reading a taxonomy code
- How MedicalProspects applies taxonomy

The Health Care Provider Taxonomy code set, maintained by the National Uniform Claim Committee (NUCC), assigns a 10-character code to each provider type, classification and specialization. It has three levels: provider grouping, classification and area of specialization.³ Every NPI record carries at least one taxonomy code, and one is marked as primary.

Why codes beat titles

A title of "cardiologist" can describe very different buyers. Taxonomy codes separate them:

Taxonomy code	Specialty	Typical campaign fit
207RC0000X	Cardiovascular disease (general cardiology)	Diagnostics, remote monitoring, pharma
207RI0011X	Interventional cardiology	Catheter-lab devices, stents, imaging
207RC0001X	Clinical cardiac electrophysiology	Ablation systems, implantable devices, mapping

Taxonomy code	Specialty	Typical campaign fit
2080P0202X	Pediatric cardiology	Pediatric devices, congenital heart programs
207R00000X	Internal medicine	Primary care tools; not a cardiology audience

An electrophysiology device campaign sent to all five groups would reach mostly the wrong people. Filtered by code, it reaches only the subspecialists who use the product.

Reading a taxonomy code

Part	Example (207RC0001X)	Meaning
Grouping	Allopathic & Osteopathic Physicians	Broad provider type
Classification	Internal Medicine	Specialty family
Area of specialization	Clinical Cardiac Electrophysiology	The subspecialty you target

I CODES ARE SELF-SELECTED

Providers choose their own taxonomy codes when they register, and many carry more than one. That is why cross-checking with licensing and credentialing sources matters, and why secondary codes need a clear rule.

How MedicalProspects applies taxonomy

- **Classified by code, not title.** Clinical specialty lists are classified against healthcare provider taxonomy codes, so buyers know exactly who is included.
- **Cross-checked with licensing and affiliation sources.** Records that do not verify across primary sources are flagged for investigation or removal rather than guessed.

KEY TAKEAWAYS

- Taxonomy codes replace free-text titles with a standard, auditable classification.
- A code has three levels; the area of specialization is what you target.
- Cross-check codes against licensing and credentialing sources, and set a rule for secondary codes.

Keeping Records Fresh: Refresh Cadence and Decay

Verification is not a one-time event. A record verified at compile time starts aging the next day, so freshness depends on how often every record is re-checked.

IN THIS CHAPTER

- The MedicalProspects refresh schedule
- What each monthly cycle catches

The MedicalProspects refresh schedule

Segment	Re-verification cycle	Why
All clinical and facility records	Monthly, against primary sources	License, address and affiliation changes are captured within weeks
Healthcare executives and C-suite	Every 60 days	Leadership roles change hands more often than clinical roles
Health IT leadership	Every 60 days	High turnover during system and vendor transitions
Pharma field teams (MSLs, KAMs, sales directors)	Every 60 days	Territory and employer changes are frequent
Every delivered file	A final check before delivery	Deliverability is confirmed on the file you receive, not on an average

What each monthly cycle catches

- **NPPES deactivations:** inactive NPIs are removed from mailing files.
- **Licensing board changes:** retired, lapsed or excluded providers are removed.
- **Practice and affiliation changes:** PECOS and credentialing updates move providers to their current organization.
- **Bounce feedback:** hard bounces reported by customers trigger a re-check of the source record, plus a 1:1 replacement.

KEY TAKEAWAYS

- A record verified at compile time starts aging the next day.
- Monthly cycles for all records, and 60-day cycles for high-turnover roles.
- Bounces feed back into the source record, not just a campaign suppression list.

How NPI-Verified Data Changes Campaign Outcomes

The NPI does more than verify a record. It is a shared key that connects marketing data to the CRM, claims, prescribing and credentialing data your company already holds. That connection makes four kinds of campaigns more precise.

IN THIS CHAPTER

- 1. MedTech: launching to the right subspecialty
- 2. Pharma and biotech: matching marketing to commercial data
- 3. HealthTech: selling to organizations, not just people
- 4. Recruiting: reaching active, licensed candidates
- NPI as a join key
- Before you send: CRM hygiene with the NPI

1. MedTech: launching to the right subspecialty

A cardiac device company launching an ablation product needs electrophysiologists, not every cardiologist. Filtering by taxonomy code 207RC0001X, then by hospital affiliation and practice location, produces a list of providers who actually perform the procedure. Reps spend their time on accounts where the product is relevant.

2. Pharma and biotech: matching marketing to commercial data

Pharma commercial teams already segment prescribers by NPI. When an email list carries the same NPI, it joins directly to prescriber segments, targeting lists and CRM records. There is no fuzzy name matching and

no double-counting the same physician across systems.

3. HealthTech: selling to organizations, not just people

Type 2 NPIs identify organizations. Linking clinician records to their facility's organization NPI and system affiliation lets HealthTech teams build account-based campaigns: every relevant contact at one health system, grouped together.

4. Recruiting: reaching active, licensed candidates

Healthcare recruiters need candidates who are licensed and practising. NPI status and licensing-board checks remove retired and deactivated providers, and the taxonomy code confirms the exact specialty a role requires.

NPI as a join key

System	What the NPI lets you do
CRM	Deduplicate clinicians and match them to accounts
Marketing automation	Suppress customers and opt-outs precisely
Prescriber or procedure data	Join marketing lists to commercial segments
Credentialing and licensing	Confirm active status and specialty
Open Payments reporting	Match recipients to CMS records

Before you send: CRM hygiene with the NPI

- **Deduplicate** existing CRM contacts on NPI rather than name.
- **Suppress** current customers by matching their NPIs before launch.
- **Enrich** CRM records that already hold an NPI with verified emails and current affiliations.

To look up any U.S. provider's NPI record, use the free MedicalProspects NPI Discovery Engine at medicalprospects.com/tools/npi-lookup/. It searches the NPPES registry by NPI number, provider name and specialty, or organization name, with no account required.

WORKSHEET • PLAN YOUR NPI AUDIT

Run this on any vendor's sample.

1. How many sample records include an NPI, out of the total:

2. Registry matches on name and taxonomy, out of 20 checked:

3. Deactivated or mismatched NPIs found:

4. Emails verified separately from the NPI, and results:

Evaluating "NPI-Verified" Claims: A Buyer's Checklist

Many vendors put "NPI" on their lists. Fewer use it to verify every record. Use these questions to tell the difference.

- ☐ **Is an NPI attached to every U.S. clinical record, and is it delivered in the file?** If the NPI is not in the file, you cannot audit it.
- ☐ **Is the NPI matched to independent sources?** It should be cross-checked with state licensing boards and affiliation data, not just copied from NPPES.
- ☐ **Is specialty based on taxonomy codes?** Ask how secondary codes and conflicts are handled.
- ☐ **How often are NPPES deactivations applied?** Monthly is the standard to expect.
- ☐ **Are organization (Type 2) NPIs and system affiliations linked?** This is essential for account-based campaigns.
- ☐ **Can you spot-check the sample?** Look up sample NPIs in the public registry and confirm that name, specialty and location match.
- ☐ **Is the email verified separately from the NPI?** An NPI confirms identity, not deliverability. Both checks are needed.

Limits and Honest Caveats

NPI-verified targeting improves identity and specialty accuracy, but it does not make every record perfect.

- **Non-U.S. providers** do not have NPIs; other identifiers and sources are needed.
- **Some roles are not providers.** Executives, IT leaders and administrators usually have no NPI, so they are verified through other sources.
- **The registry is self-reported.** Cross-checking reduces, but does not eliminate, errors.
- **Not every provider is reachable.** A verified identity does not guarantee a working business email or a direct dial.

State these limits to your stakeholders. A vendor that claims 100% accuracy is a vendor to question.

CONCLUSION



Conclusion

An NPI tells you who a provider is for the whole of their career. Verified email, current practice, affiliation and specialty tell you how to reach them today. NPI-verified targeting brings the two together and keeps them aligned with monthly re-verification.

MedicalProspects builds every U.S. clinical record around this method: CMS NPPES and PECOS mapping, licensing board checks, taxonomy-based specialty classification, monthly refreshes and a 99% deliverability guarantee with 1:1 hard-bounce replacement.

See it on your own audience. Request 20 free custom sample contacts, check their NPIs in the public registry, and verify the emails with your own tools. Visit medicalprospects.com or email sales@medicalprospects.com.

Appendix: Glossary

Term	Meaning
NPI	National Provider Identifier: a unique 10-digit identifier for U.S. health care providers
NPPES	National Plan and Provider Enumeration System, which issues NPIs
Type 1 NPI	An individual provider
Type 2 NPI	An organization such as a hospital or group practice
Taxonomy code	A 10-character NUCC code describing provider type, classification and specialization
NUCC	National Uniform Claim Committee, which maintains the taxonomy code set
PECOS	CMS's Medicare enrollment system
Identity drift	The gap between a contact record and the real person it describes
Cross-matching	Confirming a record against several independent sources
Deactivation	The removal of an NPI from active use

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ABOUT THE AUTHOR



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ABOUT MEDICALPROSPECTS

MedicalProspects provides verified healthcare contact data for B2B marketing and sales teams: 425+ specialty, role and facility lists anchored to NPI and NUCC taxonomy data, re-verified monthly, with technology and buying-intent intelligence available on every audience. Teams use it to reach physicians, nurses, hospital executives, IT leaders, life sciences and payer decision-makers.

Get 20 free sample contacts built on your criteria.

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15.17M+

unique verified healthcare contacts

425+

specialty, role and facility lists

99%

deliverability guarantee, 1:1 bounce replacement

24-48h

delivery, re-verified monthly

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